

**GOVERNING DATA PACKETS AND THE WEB: A SOCIO-LEGAL NARRATOLOGY
OF NET NEUTRALITY DEBATES IN THE U.S., 2017–2020**

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Abstract

This dissertation analyzes debates on net neutrality (i.e., principles that encourage Internet Service Providers to refrain from blocking, throttling, and prioritizing data packets) in light of the 2017 *Restoring Internet Freedom* Order over the period 2017–2020. The proposal to repeal net neutrality was considered an abrupt shift in policy from efforts by previous FCCs to sustain net neutrality principles. I conduct a qualitative content analysis by collecting, coding, categorizing, and thematizing five data sources in NVivo (qualitative data analysis software) to draw out socio-legal narratives and stories. The five data sources include the 2017 Order, the FCC’s Electronic Comment Filing System (ECFS) attachment files, videos from YouTube, media reports, and law documents. The thematic findings organized by economics, technology, politics, and law and regulation are explored through a narrative framework comprised of multiple narrative and story threads to help make sense of the debates. The first research aim identifies and describes net neutrality in light of socio-legal narratives and stories through the construction and representation of ideas, concepts, issues, and arguments related to the governance of data packets and the Web. The second research aim examines how formal law and regulation frameworks (i.e., empirical and normative – ‘according to law and regulation as they are and ought to be’) and non-normative frameworks (i.e., technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web. The third research aim explores how formal law and regulation and non-normative frameworks reflect U.S. norms, values, and rights that support the expansion of U.S. economic power. The dissertation contributes to the scholarship on socio-legal narratives, law and regulation, and the substantive issue of net neutrality in the U.S.

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List of Acronyms

ACA	American Cable Association
ACE	American Council of Education
ACLP	Advanced Communications Law and Policy Institute
ACLU	American Civil Liberties Union
ACP	Affordable Connectivity Program
AEI	American Enterprise Institute
APA	Administrative Procedure Act
API	Application Programming Interface
AS	autonomous systems
BIAS	broadband Internet access service
BIS	Bureau of Industry and Security
CDN	content delivery network
CERN	European Council for Nuclear Research
CRA	Congressional Review Act
CSV	comma-separated value
DDoS	distributed denial-of-service
DNS	Domain Name System
DOJ	Department of Justice
DPI	deep packet inspection
DSL	digital subscriber line
EBB	Emergency Broadband Benefit
ECFS	Electronic Comment Filing System
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FOIA	Freedom of Information Act
FTC	Federal Trade Commission
GAO	Government Accountability Office
GIS	geographic information system
GSA	General Services Administration
HPRC	Human Participants Review Committee
HTTP	Hypertext Transfer Protocol
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	information and communications technology
IoT	Internet of Things
IP	Internet Protocol
IPTV	Internet Protocol television
ISP	Internet Service Provider
IXP	Internet Exchange Point
JSON	JavaScript Object Notation
MOU	Memorandum of Understanding
NCTA	National Cable & Telecommunications Association
NPRM	notice-of-proposed-rulemaking
NSA	National Security Agency
OECD	Organization for Economic Co-operation and Development

OS	operating system
OTI	Open Technology Institute
P2P	peer-to-peer
QDAS	qualitative data analysis software
QoS	quality-of-service
REB	Review Ethics Board
RICO	Racketeer Influenced and Corrupt Organizations
SEC	Securities and Exchange Commission
TCP	Transmission Control Protocol
URL	Uniform Resource Locators
VoIP	Voice over Internet Protocol
WISPA	Wireless Internet Service Providers Association

Executive Summary

An executive summary for my dissertation, “Governing Data Packets and the Web: A Socio-Legal Narratology of Net Neutrality Debates in the U.S., 2017–2020,” will serve five purposes. I will discuss (a) what inspired me to study the governing of data packets and the Web before briefly outlining (b) the dissertation’s context, methodology, and research aims. Next, I will preview (c) the research findings and (d) the research arguments, then conclude by assessing (e) the dissertation’s contributions.

A – Inspirations to Study the Governing of Data Packets & the Web

Sir Tim Berners-Lee (1999, p. 12), one of the early architects of the Web, compared the mechanics of the Web to neurons in our brain: “the brain has no knowledge until connections are made between neurons. All that we know, all that we are, comes from the way our neurons are connected.” The Web symbolizes the interconnection of neurons involved in the creation and transmission of knowledge.

Problems have arisen, however, regarding the governance of the Web. This has resulted in several legal and regulatory disputes. These include issues pertaining to equality of access to digital spaces, consumer protection, free speech, barriers to innovation, and “ownership.” These types of disputes fall within the scope of what is referred to as *net neutrality principles*. The phrase *net neutrality* – which is the focus of this dissertation – focuses on the nature of the governance role of Internet Service Providers (hereinafter ISPs). More specifically, to what extent should ISPs, on the one hand, be neutral actors allowing for full and unlimited access to the Internet at one price, or, on the other hand, decide when to limit users’ access (by blocking, throttling, and prioritizing data packets) and at what cost?

I delve into the net neutrality debates to understand how conflicting interests and stakeholders engage in economic, political, and legal and regulatory battles to influence the governance of technology. I take Carr's (2016, p. 34) question to heart: "if technology can promote or express positive or negative norms and values, to what extent is society able to navigate and direct them?" I am committed to understanding how economic theory, political (in)action, and laws and regulations influence the governance of information and communications technology, through either upholding or undoing net neutrality principles. I am also concerned with norm adaptability in response to changing knowledge, facts, and interests (Bayamlioglu & Leenes, 2018, p. 305). I question what the role of law and regulation is with the rise of techno-regulations (de Vries & van Dijk, 2013, p. 90). Are ISPs simply economic actors who should be entitled to pursue their economic interests, or is there a public interest component sufficient to mandate legal and regulatory intervention, and, if so, what are the limits to that intervention?

B – Context, Methodology, & Research Aims

To address these issues, I analyze the net neutrality debates by drawing from documentary research between December 2017 and March 2020. My analysis begins on December 14, 2017 with the implementation of the *Restoring Internet Freedom* Order (hereinafter 2017 Order). The 2017 Order sought to adopt a market and technology-first approach to ISP regulation to enable restrictions on Internet openness and to remove the Federal Communications Commission's (hereinafter FCC) involvement from governing the Internet. Prior to the 2017 Order, the FCC mandated ISPs to act in a neutral manner that allowed for all Internet users to be treated in an equitable manner. The proposal to repeal net neutrality

principles and entrust private ISPs with full decision-making authority to make decisions regarding Internet access, cost, and usage was an abrupt shift in policy.

By mid-2020, people around the globe had to learn to use and adapt to the Web and Internet out of necessity and the focus and debate on net neutrality that took place between 2017–2020 significantly waned. My analysis ends on March 13, 2020, the day that Republican President Trump declared a national state of emergency due to the COVID-19 pandemic. The March 13, 2020 end date was chosen since COVID-19 was considered a global health threat that resulted in a marked shift from in-person social and work interactions to exclusively online ones. While there is no inherent relationship between the COVID-19 pandemic and net neutrality, the pandemic forced an increasing reliance on the Web and Internet infrastructure for essential online interactions in remote work, education, healthcare, entertainment, and communication. The 2017–2020 period under analysis was the most intensely debated period across the net neutrality saga in different sources.

To gain a clear understanding of the debates on net neutrality, I undertook research for this project from five primary sources: the FCC’s 2017 Order, the FCC’s ECFS (Electronic Comment Filing System) attachment files, videos from YouTube, media reports, and law documents (e.g., Congressional documents and publications; Federal and States/Territories cases and codes; statutes and legislation; administrative materials; briefs, pleadings, and motions; administrative codes and regulations; and various collections, such as Congressional Hearings). More specifically, I undertook a qualitative content analysis of the data consisting of my interpretation of the texts and how actors and institutions understand their own and others’ intentions and actions. I collect, code, categorize, and thematize the five data sources in NVivo

(qualitative data analysis software) to draw out socio-legal narratives and stories, as shown in Figure 1.

Figure 1

The Five Evolutionary Steps to a Content Analysis



There are five evolutionary steps to a content analysis. First, information is gathered for storage and reference through simple and advanced Web-scraping tools and techniques to construct datasets. Second, 423 law and regulation-based codes connected to the economics, technology, politics, and law and regulation themes are produced from a word frequency query in NVivo with the mainstream media news dataset. This query is cross referenced with the other four datasets. Third, passages with the coded words or phrases are highlighted in NVivo by reading above and below highlights to gain context and to decide whether the passage contributes to the understanding of the debates as it relates to law and regulation. *Category node classes* are actors and institutions coded as net neutrality advocates or net neutrality opponents and by type of actors/institutions in each passage. *Category node clusters* are inductively created in NVivo to signal what informational topic is being discussed in each passage. I produce word frequency and matrix categorization queries across all *classes* and *clusters* individually and in combination. Fourth, I manually read, sort, and label *clusters* under the four themes. I transfer all single-cluster and two-cluster comparisons according to the respective themes rooted in net neutrality scholarship. Fifth, data narration entails manually highlighting full and parts of passages in each of the 1,499 total files under the themes. Attention is paid to discursive

strategies to convince the audience of arguments where dominant and counter narratives speak to three research aims.

The first research aim involves both understanding and situating the net neutrality debates within socio-legal narratives and stories. This is achieved by formulating and portraying ideas, concepts, issues, and arguments pertaining to the governance of data packets and the Web. I explore how both net neutrality advocates and opponents shape discourses using discursive strategies.

The second research aim examines how formal law and regulation frameworks (i.e., empirical and normative – ‘according to law and regulation as they are and ought to be’) and non-normative frameworks (i.e., technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web.

Under the formal law and regulation framework, the empirical component assesses legal and regulatory facts, proscriptions, and outcomes anticipated by arguing for or against net neutrality principles. The normativity component assesses value-judgement narratives and stories. This encompasses Law 1.0 (coherentists) and Law 2.0 (regulatory-instrumentalists), which signals what acts are “prohibited, permitted, or required” by empirical and normative judgements (Brownsword, 2016, p. 102).

Under the non-normative framework, Law 3.0 (technocrats) indicates what acts are possible and impossible and what can and cannot be done through technological management (Brownsword, 2016, p. 102). Law 3.0 is about looking for technological solutions instead of drafting new laws (Brownsword, 2020, p. 34).

The third research aim explores how formal law and regulation and non-normative frameworks reflect U.S. norms, values, and rights that support the expansion of U.S. economic power.

C – Research Findings

One of the main research findings I realize is that while facts and numbers can provide context and point to outcomes, they are encased within broader narratives driven by fear and anxiety about dire consequences. Net neutrality advocates and opponents rely on discursive strategies to:

- Prove what is true and historic fact.
- Expose logical leaps and incite negative emotions.
- Detest political influence and control.
- Promote economic freedoms.
- Disclose how the FCC is a useless or essential regulator.
- Establish criteria for people to upgrade technologies to harness digital skills and human development.

The nature and effectiveness of formal law and regulation versus non-normative frameworks identifies the:

- Interpretation of laws and regulations and contesting of state versus federal jurisdictions through exceptions, U.S. Codes, and acts.
- Offering of a space for industry experts to debate and counsel the FCC and politicians on whether and to what extent Title II should be repealed.
- Proposing of a centrist solution where ISPs offer and charge for enhanced or tiered services and regulators provide regulatory and legal checks. The FCC and the Federal Trade Commission (hereinafter FTC) could unite to pre-empt and react to harmful ISP practices.
- Failure of laws and regulations to adapt and align with data packet management logistics.
- Slow alignment of laws and regulations and forgetful embrace of humanistic protections by technological management and solutions. Law works best as a blanketed legacy of standards. Regulation works best at addressing societal concerns to alter behaviours and mitigate harms. Technological management and solutions work best at becoming more adaptive, efficient, secure, convenient, recyclable, affordable, and faster across time for humans.
- Law and regulation should direct and adapt to technological management and solutions, where regulation can combine local to supranational public governance with actor and institution non-state private governance.

Net neutrality advocates and opponents argue how U.S. norms, values, and rights metastasize U.S. economic power through:

- Gatekeeping access and interaction with content and applications and exclusion of consumers and competitors.
- Monopolistic control.
- ISP-projected and reported infrastructure and financial investment numbers.

D – Research Arguments

I make a few modest arguments based on the research findings. I argue that establishing criteria is essential to identify individuals, groups, or communities deprived of choices in ISPs and quality of access to the Web. Policies can help to ensure the availability of digital tools, platforms, devices, services, and applications. Additionally, policies can help to outline steps to cultivate digital skills and development to empower humans to contribute to society, pursue information, and broaden personal knowledge (Ragnedda, 2017). I also argue for the FCC to organize an assembly for expert witness testimony and extended debate. This should enable the presentation and rebuttal of arguments by telecom council members, legal experts, economists, investigative journalists, academics, technology experts, and civil society members. The decision to uphold or repeal net neutrality principles could then be based on formal laws and regulations and drawn from evidence cited and evaluated by the FCC.

I argue that a centrist solution could resolve parts of the net neutrality debate by (i) ISPs offering and charging for enhanced or tiered network services and (ii) regulatory bodies (i.e., the FCC and FTC) governing Internet market economy abuses. The idea of pre-empting and reacting to Internet market economy abuses is analogized by sticking to a pre-emptive regimented health plan *and* taking reactionary anti-biotic medication to stay healthy. I also argue that law and regulation should direct and adapt to technological management and solutions.

Regulation is the middle ground between law and technological management, merging public governance at various levels with non-state private governance. When technology surpasses international corporate capabilities, state governments can step in to enforce consumer safety. Conversely, when state governments aim to shield citizens from foreign espionage and foster domestic enterprise, private industry can offer solutions. Both frameworks influence how U.S. economic power evolves by mirroring U.S. norms, values, and rights.

E – Contributions

The dissertation contributes to the scholarship on socio-legal narratives, law and regulation, and net neutrality in the U.S. The net neutrality literature has primarily focused on debates between economics and technological themes without attention paid to politics and law and regulation. Moreover, no other academic works have surveyed the vast number of data sources Web-scraped within this period. This dissertation makes a substantive research contribution to this important field which, going forward, can be used as a springboard for further research and policy analyses. Completing the work from data collection to data narration on this scale contributes to how scholars might think about how vital online content is to the social sciences and the work required to harness it as data. Web-scraping allows the generation of large datasets to sift through more information with precision.

As net neutrality advocates and opponents attempt to govern data packets and the Web through debates, the dissertation attempts to bring to light the narratives and stories found in the net neutrality saga. Underpinning most of the debates is fear and anxiety on dire outcomes. Only through expository narrative analysis can we see this occur. A narrative analysis allows us to see in detail how net neutrality advocates and opponents relied on discursive strategies, the

contention between the formal law and regulation versus non-normative frameworks, and how U.S. norms, values, and rights expand U.S. economic power.

I make a few policy recommendations and scholarly conceptual contributions. Policy recommendations are made around helping to close the digital divide and designating the FCC to organize an assembly for expert witness testimony and extended debate. Scholarly conceptual contributions are made around seeing how a centrist solution could resolve parts of the net neutrality debate through pre-emptive and reactive measures. I also argue that there continues to be a crucial role for law and regulation in the rise of the seemingly independent world of technological management and solutions. There is mutual support between state and non-state actors and institutions to uphold U.S. economic power.

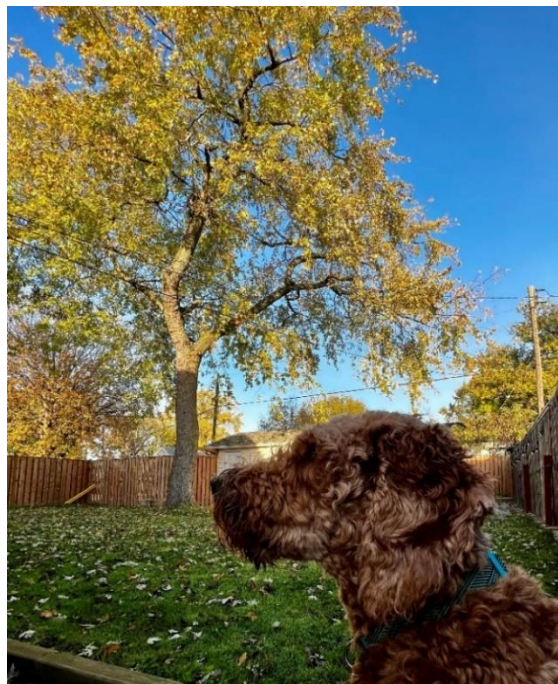
Chapter 1 – Jailbreaking the FCC: Removing Restricted Modes of Operation

1.1– From Passion to Hostility, From Dogs to Death Threats

A black fibre optic cable swoops down from the utility pole in a neighbour's backyard into a grey fibre optic distribution box bolstered beside a home office window. The black fibre optic cable drives electrical output signals past the drilled centre of a brick beside the distribution box into a mounted modem in a basement. The modem is plugged into an electrical outlet and feeds a blue Internet cable back up to a router perched in the centre of the home office window. Squirrels jump between tree branches that sweep over the backyard onto the black fibre optic cable and use it as a runway between homes. Max the dog surveils the actions of squirrels to inform his neighbourhood that no squirrel shall touch his hallowed space. Figure 2 depicts the fibre optic cable travelling under the tree branches, across the hallowed space, from our neighbour's utility pole, all while our dog, Max, watches for trespassing squirrels.

Figure 2

Max Surveilling Squirrels Jumping Between Tree Branches onto Fibre Optic Cable



Approximately 850 kilometres (528 miles) away from our hallowed space where Max defends our precious Internet service equipment is the FCC on 45 L Street NE in Washington, DC. On December 14, 2017, U.S. Department of Homeland Security personnel stormed the Commission Meeting Room during the 2017 Order hearing. The FCC was here to decide the extent of Internet governance. Two explosive devices were set to detonate, with one allegedly planted in the room. Federal Protective Service Explosive Detection Canine Teams swept the facility for explosive devices based on an initial telephone call they received.

Max and the explosive detection canines defended and protected what most Internet service consumers are passionate about: the access to, consumption of, and sharing of ideas over the Web. Interfacing with content, applications, and file sharing are integral to most consumers for entertainment, social relationship building, and workflow. The ability to freely access, consume, and share ideas across the Web begins with discussions about the physical layer of the Internet. Fibre optic cables, coaxial cables, twisted pair cables, telephone lines, satellites, cellular towers, utility poles, digging permits, routers, range extenders, and Internet cables to connect through fibre optic cable, cable, dial-up, DSL (digital subscriber line), satellite, or cellular data are some of the components of the physical layer consumers take for granted when interfacing with the exchange of ideas over the Web. Discussing the physical infrastructure to access, consume, and share ideas would be incomplete without also discussing the constant flow of data packets traversing packet-switching networks. On top of discussing the physical infrastructure layer of the Internet and packet-switching networks is a discussion about regulatory classifications found in the Communications Act of 1934. Title II in the Communications Act of 1934 classifies ISPs as *common carriers* and as providing *telecommunication* services, whereas Title I classifies ISPs as *information service providers* and as providing *information* services.

Telecommunication services refers to the “transmission between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received” (Telecommunications Act of 1996, U.S. Code 47 Sec. 153). By contrast, *information* services means that the provider offers the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service” (Telecommunications Act of 1996, U.S. Code 47 Sec. 153).

Net neutrality principles encourage ISPs to refrain from blocking, throttling, and prioritizing data packets. The net neutrality debates between net neutrality advocates and opponents on the extent of blocking, throttling, and prioritizing data packets would cease to exist if there were no regulatory classifications (i.e., Titles I and II) to contest. Max would be relieved of his duty to defend the fibre optic cable runway between homes and the explosive detection canines would not have to protect the livelihood of actors debating about the fate of governing data packets and the Web. The decision for ISPs to throttle data as part and parcel of 5G technologies, or the FCC’s reason for generating a notice-of-proposed-rulemaking (NPRM) to encourage the public to comment on whether and how the FCC should or should not govern data packets and the Web, or Democratic Party and Republican Party members calling for bipartisanship to secure federal telecommunications legislation began and ended with Titles I and II classifications.

But before diving further into discussions about physical layers, packet-switching networks, regulatory classifications, and other nuts and bolts of the net neutrality debates as

argued by net neutrality advocates and opponents, I will return to where I began. I began with a discussion about defending and protecting the means to access, consume, and share ideas. The passion of net neutrality ran deeper than canines defending against gnawing-at-the-fibre-cable squirrels or protecting actors entrusted to decide the fate of governing data packets and the Web after a bomb threat from unhinged Internet freedom fighters. Passion can turn to hostility as it did with two death threats delivered to Republican FCC Chairman Ajit Pai and Republican Congressman John Katko and their families.

Republican FCC Chairman Ajit Pai and his children's lives were threatened through emails. The sender of the emails accused Chairman Pai of being responsible for two children committing suicide on the account of the 2017 Order and threatened to kill his children. The sender claimed to know where Chairman Pai's children attended preschool. A second domestic terrorist threatened to kill Republican Congressman John Katko and his family on a recorded telephone message if Republican Congressman Katko did not support net neutrality. Republican Congressman Katko and his family would have been wiped off the face of the Earth since net neutrality was apparently more important than the defence of the U.S., free speech, and health care; net neutrality was the basis of the new society. From passion to hostility, from dogs to death threats, net neutrality advocates and opponents defend and protect access to, consumption of, and sharing of ideas over the Web.

My evidence for the dissertation will draw from documentary research, starting from the December 14, 2017 date of implementing the 2017 Order. The 2017 Order aimed to embrace a market and technology-centric approach to regulating ISPs, allowing for constraints on Internet openness and the withdrawal of FCC involvement in overseeing the Internet. Prior to the 2017 Order, the FCC mandated ISPs to act in a neutral manner that allowed for all Internet users to be

treated in an equitable manner. Previous FCCs worked towards sustaining net neutrality principles and the 2017 Order was an attempt to dismantle such efforts. The proposal to repeal net neutrality principles and entrust private ISPs with full decision-making authority to make decisions regarding Internet access, cost, and usage was an abrupt shift in policy.

The rest of the source material evidence spans until March 13, 2020, the day that Republican President Trump declared a national state of emergency due to the COVID-19 pandemic. People around the globe had to learn to use and adapt to the Web and Internet out of necessity and the focus and debate on net neutrality that took place between 2017–2020 significantly waned. The March 13, 2020 end date was chosen since COVID-19 was considered a global health threat that resulted in a marked shift from in-person social and work interactions to exclusively online ones. While there is no inherent relationship between the COVID-19 pandemic and net neutrality, the pandemic forced an increasing reliance on the Web and Internet infrastructure for essential online interactions in remote work, education, healthcare, entertainment, and communication. The 2017–2020 period under analysis was the most intensely debated period across the net neutrality saga in different sources.

Evidence of these debates is found in five different sources: the 2017 Order itself, the FCC's ECFS (Electronic Comment Filing System) attachment files, videos from YouTube, media reports, and law documents. Using online content from the Web as an object and field of study will help explain the Web-scraping techniques used to access and retrieve the textual data. To help organize the text-saturated nature of the net neutrality debates, a qualitative content analysis of the data will consist of my interpretation of the texts and how actors and institutions understand their own and others' intentions and actions. I will conduct a qualitative content

analysis by collecting, coding, categorizing, and thematizing the five data sources in NVivo (qualitative data analysis software) to draw out socio-legal narratives and stories.

I argue that net neutrality advocates and opponents contest net neutrality principles in light of socio-legal narratives and stories. I will focus on the construction and representation of ideas, concepts, issues, and arguments related to the governance of data packets and the Web. A narratology will bring focus to the production and reception of stories and communicating events whose plots are intended to bring arguments for and against net neutrality to understanding. Within each of the four net neutrality themes of economics, technology, politics, and law and regulation, I will identify and describe how net neutrality advocates and opponents frame discourses through discursive strategies. Discursive strategies are used to convince the audience to believe in discourses.

The 2017–2020 net neutrality debates will be explored with three research questions in mind. The research questions will become especially clear as I delve into the literature before returning to them in section 1.6. First, how do net neutrality advocates and opponents frame their discursive strategies? Second, in what ways do formal law and regulation frameworks (empirical and normative – ‘according to law and regulation as they are and ought to be’) govern data packets and the Web? In what ways do non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web? Third, how does Internet governance reflect U.S. norms, values, and rights in ways that support the expansion of U.S. economic power?

In Chapter 1’s section 1.2, I will explore the nature of the Web to provide context for the net neutrality debates, especially around historicizing the U.S. government-driven information industrial complex. In section 1.3, I will outline the role of delegation, Internet governance, and

law, regulation, and technology to understand the disruption of law by new technologies and call for a reimagining of law. In section 1.4, I will identify locations in the net neutrality literature and contextualize the 2017 Order to introduce the socio-legal themes of economics, technology, politics, and law and regulation. In section 1.5, I will investigate narratology as a theoretical framework to bring focus to the production and reception of stories and communicating events whose plots are intended to bring arguments for and against net neutrality to realization. I will identify and describe how net neutrality advocates and opponents frame discourses through discursive strategies. In sections 1.6 and 1.7, I will set out the research questions and contribution to the advancement of knowledge and structure a plan for the dissertation by giving an overview of each of the seven chapters that follow: methods, economics, technology, politics, law, analysis, and conclusion.

1.2 – The Nature of the Web

Though many of us use the Web and the Internet everyday, few are acquainted with their varying components and competing perspectives. Although many think of the Web and the Internet as a means to communicate or gather information, others conceptualize it as a medium that shapes the nature of the communication or information itself. In this section, I identify the basic components of computer networks and describe this history of the Web to discuss the six layers of the Internet. I make the argument that protocols and algorithms are controlling logics that can empower actors and institutions to act or produce an effect in commanding order. I then explore how power becomes actionable and legitimized through Internet jurisdiction. I conclude by underlining how state governments and private industry have worked together to establish an information-industrial complex, yet centralized regulation has proven to be contentious.

In his timeless work, *The human use of human beings: Cybernetics and society*, Norbert Wiener (1954, p. 16) argued that society could be conceptualized as a series of “messages” and the “communication facilities” that produce and maintain messages. Actors could send and receive messages to and from computer networks and computer networks could send and receive messages to and from other computer networks. *Computer networks* are a collection of connected computers that exchange information and resources through software and hardware. Barney (2004) refers to networks as comprising of nodes, ties, and flows. A node must connect to one or more nodes for it to be considered part of a network and can serve as a connection point between other nodes. A tie is what joins nodes together. And flows are the bits and bytes of information or content that travels “between and through nodes along ties” (p. 26).

To borrow from Castells (2010, p. 21), society has become an “informational society” with the birth of the Web in 1989, where actors and institutions on computer networks produce and exchange information. When Sir Tim Berners-Lee submitted his first proposal to develop a distributed information system in March 1989 while at CERN (European Council for Nuclear Research), the intention was to link pieces of information based on its relation to other pieces of information. Berners-Lee (1999, p. 12) emphasized the importance of structure and likened the Web’s functionality to neurons in our brains: “the brain has no knowledge until connections are made between neurons. All that we know, all that we are, comes from the way our neurons are connected.”

The Web is a program that is part of the application layer of the Internet. When using a Web browser, a Web client application connects to servers (Uniform Resource Locators, or URLs) to access “pages and documents” (Severance, 2015, p. 20). The top layer of the Internet, or content layer, represents the texts, which can be defined as expressions of written or spoken

words, illustrated or moving pictures, and/or numerical graphics. The first layer (content) and the second layer (application) of the Internet are preceded by four more layers: transport, internetwork, link, and physical. A brief description of each layer's function will give context to what the net neutrality debates are about, beginning with the bottom physical layer.

The physical layer of the Internet commonly comprises of fibre optic cables, coaxial cables, twisted pair cables, telephone lines, satellites, cellular towers, utility poles, routers, range extenders, and Internet cables found in the material world. The link layer attempts to “encode and send data across the link” through wireless frequencies or wired voltage connections by sending data packets through “multiple routers connected by multiple link layers” (Severance, 2015, p. 16). Data packets are “small discrete bits of information” (McKelvey, 2010, p. 56) that consist of a header and a payload. Clement and Obar (2015, pp. 16–17) explain that a data packet's header contains “source and destination IP [Internet Protocol] addresses,” just like a lettered envelope would have ‘receiver’ and ‘sender’ addresses written on the front. A data packet's payload contains the content that becomes broken down and eventually reassembled at its destination point (pp. 16–17).

The internetwork layer (Internet Protocol or IP) reviews the packet's intended destination and finds a fast and efficient route for delivery by ‘hopping’ from router to router (Severance, 2015, p. 18). The router determines the link for each packet since “every single packet is marked with its ultimate destination address,” known as an IP address (p. 36). Routers thus track network numbers and host identifiers (p. 38) to recognize network outages and re-route packets accordingly “without any central routing clearinghouse” (p. 49). The third layer, the transport layer, or Transmission Control Protocol (TCP), acts as a verifier that packets were received when the destination computer begins to reassemble packets to construct the original content. TCP

sends verification to the source computer that all or only parts of the content were received by the destination computer. The destination computer may send “a request to the source computer to resend the data that seems to be missing. The sending computer must store a copy of the parts of the original [content] ... until the destination computer acknowledges successful receipt of the packets” (p. 19), at which point the data can be discarded.

As DeNardis (2016, p. 8) correctly points out, the Internet should be described as an “interconnected network of virtual AS,” or autonomous systems, not as a network of networks. AS “are routing domains” that manage domestic IP addresses or IP addresses that utilize domestic IP addresses to connect to the global Internet through IXPs (Internet Exchange Points) (p. 8). Data packets hop from router to router not based on geographical location but on “network efficiency and resource reachability” (p. 8; see also Drake et al., 2016, p. 22). This dissertation will focus on how ISPs and their physical infrastructure and networked telecommunication services facilitate the access to, consumption of, and sharing of ideas over the Web. van Dijk (2006, p. 46) defines *telecommunications* as communication that uses media to exchange speech and text across vast geographic space.

There are different types of providers that have different responsibilities in delivering connections and data traffic to the consumer. Backbone providers provide “long-distance connections between a small number of interconnection points” (Yoo, 2006, pp. 1860–1861). Middle-mile providers support “regional distribution functions” and carry data traffic “to the local distribution facilities” that are maintained by last-mile providers who “convey the traffic ... to the premises of end users” (pp. 1860–1861). Castells (2010, pp. 150–151) makes the analogy of some of these Internet layers to the U.S. Internet-related industry. Layer one includes corporations like ISPs that build infrastructure and networking equipment, like Google Fiber that

provides broadband Internet and IPTV (Internet Protocol television) to stream online media. Layer two consists of corporations that develop software applications, like Google's Chrome Web browser. Layer three comprises corporations that generate synthetic revenues from things like advertising, like Google Search. And layer four involves corporations that provide Web-based financial transactions, like Google Wallet, a virtual wallet that facilitates mobile payments to ecommerce stores.

Mueller et al. (2007, p. 244) summarize that the Internet is a collection of protocols, or "software instructions" for transmitting data and "a global set of unique addresses." A protocol is an author-based logic that performs tasks and informs how to arrange data (Galloway, 2004, p. 30). When data travel along the six layers of the TCP/IP model, net neutrality advocates argue that the flow of data packets should not be influenced by ISPs. Net neutrality opponents argue that protocols are controlling logics and rules; thus, protocols are not neutral since they define and direct "rules of engagement" to create networks (Stalder, 2006, pp. 134–135).

ISPs and network owners and operators have argued that data traffic ought to be shaped for higher quality of service to avoid network congestion and that some bandwidth (i.e., the amount of data transmitted per second) should be allocated to proprietary use (Chong, 2007, pp. 153–154). Some point out that ISPs have the entrepreneurial right to create proprietary content and applications that compete in the Internet market economy. Here, regulation should stay clear of imposing barriers on ISPs for creativity and market share growth. Algorithms, or sequences of instructions to process data, can have a *modus operandi*. According to McKelvey (2010, p. 57), algorithms could prioritize data packets "to ensure their fast and lossless delivery" over other data packets that "receive fewer resources." Herein lies part of what net neutrality advocates argue against. Yoo (2005, pp. 14–15) explains that net neutrality advocates fear that ISPs and

other network owners and operators of the physical layer “will use their control” over the TCP/IP layers to prioritize “proprietary applications and content” and that state government regulation would “preserve competition” in the top two layers.

Net neutrality advocates fear DPI (deep packet inspection) and its potential to monitor and sort data. DPI is a ubiquitous computing surveillance technology that is used to monitor sender data, receiver data, data type, and content (Fuchs, 2013, p. 1330). State and corporate actors and institutions could use this technology as a surveillance tool to monitor consumers’ behaviours (p. 1333). ISPs can advance packets to the front of the queue and scan packets to surveil, increase, decrease, block, or filter traffic (Nuechterlein & Weiser, 2013, p. 205; Bendrath & Mueller, 2011, p. 1143). ISPs can also use DPI to filter malicious and redundant traffic (Bauer & Obar, 2014, p. 2). When ISPs have abilities to block, throttle, and prioritize data packets, questions begin to formulate about regulating the control ISPs assume at the physical, link, TCP, IP, application, and content layers. Net neutrality advocates raise red flags over whether and to what extent regulators have authority to govern data packets and the Web.

I argue that protocols and algorithms are controlling logics that can be considered sources of power. I refer to Castell’s (2004, p. 31; 2011, p. 10) definition of power to understand the empowerment of actors and institutions over others to affect outcomes through will (desire). I understand power as the ability to act or produce an effect. Power can be perceived as a consortium of struggles and competitions to command order. One way power becomes actionable and legitimized is through jurisdictional authority. Internet is spelt with a capital “I” because it is a noun, it is a place. Its physical hardware components point to geographical locations, but its layered protocols consist of software instructions to provide parameters for

actors and institutions to engage with and share data. Based on these features, is jurisdictional authority based on server, consumer, or ISP physical infrastructure location?

Geist (2001) frames Internet jurisdiction in three layers. The application layer establishes “whether courts are entitled to apply their laws to a particular dispute” (p. 1354). The substantive layer sees “courts apply their substantive laws to the dispute” to uphold rights and obligations through norms and values (p. 1354). And the enforcement layer enforces court orders “that often resists the imposition of foreign judgments because of large distances and minimal monetary disputes” (p. 1354). The substantive layer is difficult to address since countries and regions within countries hold different norms and values. The enforcement layer usually involves “business risk analysis” since enforcing court orders depend on “local assets subject to seizure” or is a big enough market player that a court order cannot be overlooked (p. 1355). In part, this dissertation will examine the application layer to understand how courts apply law to net neutrality disputes. Examining the substantive layer will also help understand how courts and other legal and regulatory factions uphold U.S. rights and obligations through norms and values. Also, examining the enforcement layer will make clear how courts and other legal and regulatory factions enforce (non-) net neutrality principles across state jurisdictions.

Civil society groups, ISPs, network equipment managers, and Congressional leaders, to name a few, contend over whether Title I or Title II should be repealed or sustained. Each U.S. state has either adopted or not adopted broadband access bills that regulate ISPs to abide by net neutrality principles for its citizens and the competitors that operate within its borders. DeNardis (2014, p. 11) explains how sovereign nations attempt to regulate “within or through national boundaries.” Goldsmith and Wu (2006, p. 118) root much of the Internet’s commercial success

in the “stable legal environment” fostered by state governments, along with public protections, such as “criminal law, property rights, and contract enforcement” (p. 140).

State governments and market forces truncated competition to a few dominant companies in the early 2000s that represent oligopolies (Wu, 2010). Even before the early 2000s (around the time of the dot-com bubble), crises after World War II have driven state government interest in ramping up “production of information hardware, software, and processing” into an “information-industrial complex” (Powers & Jablonski, 2015, p. 1217). As Jones and Millar (2017, p. 607) note, political debates usually morph into a “battle of metaphors,” most famously starting with then-U.S. Democratic President Bill Clinton’s running mate Al Gore. On the 1992 U.S. presidential campaign trail, Gore frequently referred to the Internet as an ‘information superhighway’ as a public and commercial entity. Gore advocated for the widening of the information superhighway roads because larger quantities of data will be moving at faster speeds in the future. Gore believed regulation was needed between state government and industry. Former Democratic FCC Chairman Reed Hundt, who was appointed by President Clinton, pushed for regulation that accounted for anti-competitive bottlenecks that reduce the capacity of other competitors to operate in a fair market (Powers & Jablonski, 2015, pp. 1462–1465). The Democratic FCC Chairman’s vision was not upheld.

Political debates about private industry regulatory oversight have been recurring since the 1990s when the Internet was commercially released. Early Internet pioneers believed that a decentralized Internet could exist through state government *deregulation*. The Internet was to be a decentralized space to exchange ideas without state government interference, which could potentially stifle innovation. Contributors, not owners, of this space could nurture all content to survive and thrive. However, there has never been a free-for-all, wild west, unedited version of

the Web. It is a myth that the Internet began as a decentralized and deregulated utopia—as a space to freely exchange ideas and communicate. Powers and Jablonski (2015, pp. 4703–4709) argue that the Internet freedom narrative has little to do with the foundational principles of access, movement, expression, and speech. Net neutrality advocates should avoid these ‘freedom of ...’ statements and argue for actual policies that directly relate to such values. The Web was not a virtual two-dimensional screened environment that belonged to no one. The Web was (and is) a territorial environment that belonged to edge providers, ISPs, network operators, equipment managers, and users who accessed routers and cellular towers.

One example of how the Internet is centralized is the DNS (Domain Name System). The DNS is, among other things, a resource record that translates human-readable computer hostnames into IP (Internet Protocol) addresses. The ICANN (Internet Corporation for Assigned Names and Numbers) was born in 1998 and “grew out of a U.S. government commitment to transfer the policy and technical management of the DNS to a non-profit corporation based in the U.S. with global participation” (ICANN, 2022). A massive investment of research and development by the U.S. government and policies that prioritized private-sector development occurred.

This dissertation will in part attempt to capture the unique context of American political institutions, federalism, and divisions of power between the legislative, executive, and judicial branches. This dissertation will also attempt to provide insight to the historical context of American political activity and behaviour during 2017–2020. The distinction between law and regulation (with the former being judged superior to the latter) is a fundamental axis of attack for American neoliberals against the post-war Keynesian welfare state, and has been since neoliberalism emerged as a political movement. Many of the cases before the U.S. Supreme

Court deal with analyzing the degree to which Congress either intended to, or should be permitted to, delegate authority to the Executive branch to regulate. Regulation is often criticized for its overreach as opposed to the rule of law, which is much broader in its application. The U.S. political system is about delegating authority with legislation offloading to regulatory agencies. Regulation is slated for unelected bureaucrats to make decisions on how industries like ICT (information and communications technology) function. This delegation of authority political phenomenon was certainly not a sharp shift but a gradual process that emerged in the U.S. as interest group liberalism, to which we now turn.

1.3 – The Role of (i) Delegation, (ii) Internet Governance, & (iii) Law, Regulation, & Technology

Section 1.3 begins with recounting how the U.S. political system is about delegating authority with legislation offloading to regulatory agencies. Unelected bureaucrats decide how industries like ICT (information and communications technology) function.

Next, I work through competing visions of how to understand governance, and in particular Internet governance, to mean a collection of rules related to how actors and institutions are interfacing or ought to interface with ISP infrastructure to Web content, the technical standards for how the Internet layers are or ought to be consistent across time, and decisions to make protocols and laws, regulations, and policies more compatible. The cooperation between state governments wishing to align political, economic, and legal and regulatory directives with private industry's technology have merged to create what ten Oever (2021) calls a transnational Internet governance regime complex.

Moreover, I arrive at a set of characterizations for understanding regulation, law, and socio-legal studies. To construct a socio-legal analysis in the net neutrality debates, I draw on

Max Weber's (1978) *formal rationality* to theorize 'formal law and regulation' as merging the empirical component 'according to the law as it is' with the normative component 'according to the law as it ought to be.' Lastly, I attempt to untangle the relationship between law and regulation with technology by outlining techno-regulation, three myths of technology (i.e., idealistic, dystopian, and ambivalent), and 'code as law' versus 'code as control.' Brownsword's (2012, 2016, 2019, 2020) Law 1.0 (coherentists), Law 2.0 (regulatory-instrumentalists), and Law 3.0 (technocrats) frameworks are sketched to understand the disruption of law by new technologies and to call for a reimagining of law.

Theodore Lowi (1979) captures the end of classical liberalism between the Great Depression era until the 1970s in his ground-breaking work, *The end of liberalism: The second republic of the United States*. Lowi (p. 35) argues that interest groups bargain with other interest groups who have "market power," which is to say, "they have some control over the terms of agreements and can administer rather than merely respond to their environment." Bargaining is another variant of competition, and rules set by political institutions can convert conflict between groups into competition (p. 37). Interest groups promote interests. Interest groups promote norms, values, and ideologies that run their course through administrations, agencies, and alliances in Congress. Norms, values, and ideologies become falsely linked as things inherent to the political system (pp. 90–91). The new liberal ideology that Lowi details is the delegation of authority and power. The delegation of power is when the legislature allows an administrative agency to act on its behalf and is the "legal basis for rendering a statute tentative enough" to provide social order (pp. 92–93).

The three branches that make up the U.S. government include the legislative (Congress), which creates laws, the executive (President, Vice President, cabinet, and federal agencies),

which provides leadership and carries out laws, and the judicial (comprised of courts, such as the Supreme Court), which evaluates laws. The delegation of power to agencies is viewed as agencies “‘filling in the details’ of Congress” with rules of law (Lowi, 1979, p. 96). Furthermore, Congress delegated some of its lawmaking authority to the executive branch, for which the executive branch can subdelegate to an agency. This became what is known as “administrative legislation” (pp. 273–274). So, when an agency creates a rule, it is “committing a legislative act” (p. 303). That agency carries out the “intent of Congress as spelled out in the Administrative Procedures Act” and legitimized by the Supreme Court (p. 303). Lowi points out that few agencies go through this rigid procedure and instead prefer to favour the “norms of flexibility and decision[-making] by bargaining” (p. 303).

Lowi (1979, p. 108) describes the process of administering power and authority through the use of bargaining. Bargaining can take place in two ways. First, bargaining can occur over a case by seeing whether facts align with earlier sets of facts, whether the case can be prosecuted, whether monetary sanctions are involved, and whether remorse and future compliance are evident. Second, bargaining can occur on the rule(s) related to the decision. Setting authoritative rules, defining a concept for common reference, drawing attention to implications, or defining jurisdictional rights to intervene are considered some common arenas to bargain over (p. 108).

The ‘Second Republic’ Lowi (1979) aptly describes is a dual model of state government dominating private activity and administrative agencies bargaining in areas overseen by the state. The state “monopolizes” an “area of private activity” through “financial domination,” licensed participation, or accepting risk liability (p. 278). Once the state’s monopolization of the area has been secured, a program and its operative administrative agency bargains with interest groups. The agency negotiates with the interest groups to seek ways to “give back piece by piece” the

monopolized area as a “privilege” based on “merit” (p. 278). In sum, the administrative agency dictates the terms of interest group participation (e.g., partial ownership or exclusive rights to operate and maintain) in a market. This occurs after the state initially conquers that market through its gatekeeping strategies, usually through finances, licensing (exclusivity), and taking on risk. The ‘Second Republic’ does not have generalizable consequences and behaviours across all modern societies. The ‘Second Republic’ is unique to the U.S. in its role of dominating private activity and administrative agencies bargaining in areas first governed by the state. This dissertation will focus on how private industries and state governments propose to govern data packets and the Web.

I broadly use *governance* to mean the overlapping and competing power relations that attempt (and often fail) to guide behaviours and actions of actors and institutions. Governance has a capacity to influence behaviours, actions, or the course of events towards an intentional end. *Internet governance* can be broadly defined as a collection of rules related to how actors and institutions are interfacing or ought to interface with ISP infrastructure to Web content, the technical standards for how the Internet layers are or ought to be consistent across time, and decisions to make protocols and laws, regulations, and policies more compatible.

The Working Group on Internet Governance (de Bossey, 2005, para. 10) developed a template to define *Internet governance* as:

[T]he development and application by [state] Governments [sic], the private sector[,] and civil society ... of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.

In the report, state governments were portrayed as the final decision-makers, responsible for national, regional, and international law, regulation, and policy-making. The private sector was

to maintain a self-governance over industry standards. Lastly, civil society was to bridge capacity-building and call attention to inequality issues (see paras. 29–34).

Mueller et al. (2007, pp. 244–245) view Internet governance as beginning with decisions made about protocols and laws between ISPs, network managers, application and content developers, consumers, and any other actor or institution directly related to accessing to produce and/or consume information on the network. In other words, decisions are made to settle issues around easing Internet protocols to be more compatible with laws, including regulations and policies. The decisions made about Internet protocols and laws attempt to settle issues about “technical standards, resource allocations, and/or the conduct of people” (pp. 244–245). ten Oever (2021, p. 60) is careful to say that this definition of Internet governance fails to cite state governments and civil society’s roles and responsibilities. Many scholars have overstressed the role of the private sector and minimized the role state governments and civil society members have to play. ten Oever (p. 60) is critical of this myopic view by highlighting that it is not only up to the private Internet governance regime to increase interconnection and interoperability.

DeNardis (2014, p. 19) provides a perspective of Internet governance that goes beyond the private Internet governance regime to include national policies, international agreements, and technology. Carr (2019, p. 151) claims that U.S. government-led construction of Internet equipment and infrastructure has tapered off, but political and economic influence has not. ICT companies outside the U.S. may adopt rules, technologies, and norms when designing and building Internet equipment and infrastructure. Designing and building Internet equipment and infrastructure are done to control data to obtain economic domination over competitors (Tusikov et al., 2019, p. 296).

The private Internet governance regime prioritizes interconnection and interoperability through the coordination of the technology industry (ten Oever, 2021, p. 56). This regime often does not have civil society concerns in mind. If questions are raised about the societal impacts of technology, it may only be done to promote a positive image while ensuring the health of the corporation and its quarterly profits are maintained. Some common technology norms adopted by the private Internet governance regime include standard protocols, such as Internet Protocols (IP), the Domain Name System (DNS), and the Hypertext Transfer Protocol (HTTP) (p. 58). This regime commits to self-coordination “through the institutional configuration of distributed bodies to increase interconnection and interoperability between networks and devices” (p. 65). This regime has a difficult time embedding social and legal norms that are not of interest towards increasing interconnectivity and interconnections (pp. 65–66).

Some private Internet governance regimes create and sell Internet-of-Things (IoT) products that are constantly connected to the Internet in some capacity (usually over Wi-Fi broadband or cellular data). These regimes have embedded software in their products governed by copyright law, “paired with restrictive licensing agreements between manufacturers and users” (Tusikov, 2019, p. 122). Tusikov points out that controlling the software grants the legal authority to set rules governing how the software and the product work, can be used, and can be repaired (p. 122). “Bricking” is one practice used to remotely destruct an IoT product through the withholding of software updates or releasing of corrupted software updates to degrade functionality (p. 137). Even though the private Internet governance regime has the capacity to self-govern, the state has the capacity to govern entire private industries and delegate administrative agencies to bargain in the ICT field.

How do actors and institutions regard the role of the state in the governing of technology, specifically ICTs? The multilateral Internet governance regime contrasts the private in many ways. The multilateral Internet governance regime is more focussed on maximizing “state sovereignty, promoting economic prosperity[,] and limiting the spread of harmful and illegal content ... through laws, policies, and norm-setting” (ten Oever, 2021, p. 56). Here, the Internet infrastructure must consider “national and regional norms and values” in its design and build (p. 57). Tension has emerged because of the private Internet governance regime not fulfilling requests to address policy issues being debated in political arenas. To be fair, the multilateral regime does not have the capabilities today to produce a “general purpose global communication network” the way that private regimes can (p. 57). State governments wish to align political, economic, and legal and regulatory directives with the technology created, tested, and deployed by private industry.

These two regimes should not be misinterpreted as being separate entities that have fought for power and control, starting with multilateral regimes setting the stage for Internet governance, then being taken over by the independence of private regimes, only to be reeled in again by multilateral oversight. Both regimes have coexisted since the birth of the Internet. Both private and multilateral regimes converge to make what ten Oever (2021) calls a transnational Internet governance regime complex. Both private and multilateral regimes have clearly distinct modes of governance with private regimes implementing “voluntary norms” and multilateral regimes implementing “treaties and laws” that conflict in norms, objectives, and ways of executing (p. 57).

ten Oever (2021) refers to overlapping coordination of modes of governance as ‘metagovernance,’ and took inspiration from Gjaltema et al. (2019) and Braman (2020). The

U.S. transnational Internet governance regime complex's metagovernance employs different strategies to compete with other transnational Internet governance regime complexes around the globe. Similarly, Koops (2008, p. 161) conceptualized 'polycentric governance' as regulation from "various, partly overlapping, circles of power." Regulation combines vertical multi-level public governance locally, nationally, internationally, and supranationally, with horizontal non-state actors and institutions (p. 161).

Regulation outlines a "formal collection of rules, usually drawn, observed, and enforced by a 'public agency'" such as the FCC (Baldwin et al., 1998, p. 3). Here, regulation does not consider the role of non-legal measures or non-state actions. Light touch regulation is not unique to this net neutrality debate. It is used in variety of debates and privileges ideas and preferences. For example, industry self-regulation is more flexible, responsive, and enables innovation compared to public-sector regulation. There is a strong preference, especially in the U.S., for industry self-regulation, for non-binding legal measures in the form of codes of conduct, sets of principles, best practices, and ethics.

Black (2005, p. 1; p. 11) defines regulation as the attempt to alter behaviour against standards to produce outcomes through setting standards, gathering information, and modifying behaviour. Yeung (2015, p. 5) argues that some regulatory interventions attempt to mitigate harm instead of directly alter behaviour. For example, seat belts in vehicles do not alter drivers' behaviour. Drivers who wear seat belts can still choose to act aggressively towards other drivers. The purpose of seat belts in vehicles is to reduce the degree of harm to drivers. Drivers who wear their seat belts are less likely to be harmed in a collision. Whether the collision happened because of driver-produced road rage is irrelevant. The seat belt is the regulatory device plainly implemented to reduce harm to drivers. From this, Yeung (p. 5) defines regulation as "sustained

and focused attempts” that aim to produce “outcomes directed at a sphere of social activity” backed by “standards or purposes that affect others.”

Brownsword (2019, p. 89) argues that state regulators should ensure that the human-constructed social commons are maintained, respect community values, and balance community member interests (e.g., technological innovation and bodily safety). Ensuring overall human health and safety from regulation speaks to what Brownsword (2012, p. 254) calls ‘regulatory prudence.’ ‘Regulatory legitimacy’ is needed, which asks: are regulators doing what is best for the community in the right way, and are the regulatory purposes legitimate and strategies acceptable (p. 254)? ‘Regulatory effectiveness’ is also needed to see whether “interventions are fit for purpose” on impacting regulatees’ conduct (p. 254). Lastly, ‘regulatory connection’ refers to aligning regulation with the pace of technological innovation (p. 254). These four ideals are what strong regulation should embody.

Bayamlioglu and Leenes (2018, p. 304) argue that for law to be legitimized, rules must be “declared with prospective application” and have “generality, equality, and certainty” (see also Tamanaha, 2004). In one sense, law constitutes upholding rights, limiting the arbitrariness of rights, and keeping state governments accountable for the abuse of rights. These principles can only be cultivated in a society that maintains law’s predictability and consistent application (Bayamlioglu & Leenes, 2018, p. 304; see also Waldron, 1989). Furthermore, Fuller (1969) argues that legal standards should be general across the population under rule, broadcasted widely, future-oriented, non-contradictory, consistent and evenly proportioned, and realistic in enforcement. Law is also state-centric. Law is understood as “authoritative rules backed by coercive force, exercised at the national level by a legitimately constituted (democratic) nation-state, and constituted in the supranational context by binding commitments voluntarily entered

into between sovereign states (typified by public international law)” (Brownsword et al., 2017, p. 6).

Berners-Lee (1999, pp. 135–136), one of the early architects of the Web, exclaims that laws should be written as they pertain to social actions, not necessarily technology. In addition, Wiener (1954, pp. 144–145), an early proponent of cybernetics, argues that law should be reproducible and consistent where social actors should have the ability to “access rights and duties.” Law should be unambiguous and “legal interpretation” by judicial actors should be “independent of the will” and individual prejudice (p. 145). In this dissertation, law and regulation are read through the analytical lens of socio-legal studies.

In one sense, socio-legal studies can be viewed as the approach of studying the empirical and the normative. But before discussing this twinned approach and its intent and purpose for examining narratives and stories, I will first investigate what is meant by “socio,” the “hyphen” (“-”), and “legal.” Clarke (2013, pp. 37–38) discusses the hyphenation of *socio-legal* at length as it “opens the study of law to influences and tendencies that seek to make it social.” More precisely, the hyphen reminds readers the “variety of social facts” that exist and that should be taken into consideration as “consequential for the law” (p. 38). Clarke points out that other studies of law do not fit under the relations, groups, processes, and practices deemed *social*, but as “a-social, non-social, or ... anti-social” to law’s universality within its declared boundary (p. 41; pp. 37–38). But I must be careful not to conflate ‘law’ with ‘legality.’

Ewick and Silbey (1998) carefully separate law from legality. Law refers to formal rules and state-based channels to carry out rules. Legality refers to the social meaning, (un)official authority figures, and practices that connect to the legal. Silbey (2013, p. 26) argues that legality is “an ongoing structure of social action” and that it is admirable for scholars to seek out how

laws, regulations, and policies are part and parcel of how legal institutions gain their control and power. Moreover, law can define the social but only under social conditions that allow for this (Cotterrell, 2016, p. 20). The social provides jurisdiction in addition to “legitimation and cultural meanings” for where law and regulation operate (p. 20). By *social*, I defer to Cotterrell’s conceptualization as patterns of “connections and interactions” between and amongst actors (p. 29). Actors who decide to participate in law to “promote or control the interests of others” make use of “legal ideas in practical terms” (p. 50). The criteria for making actors’ “experiences, knowledge[,] and practices” into one that is “legal” must involve state government agents and agencies, controlling logic, and “institutionalized doctrine” (p. 53).

Cotterrell (2016, pp. 23–24) asks what legitimizes law and regulation’s authority to the point where it can “command obedience.” Other scholars have discussed how law and regulation can be both a self-sustaining closed circuit (autopoietic systems theory) that reproduces its own theories and applications of knowledge and a receptive open network that welcomes external theories and applications of knowledge. Closed systems have been accused of possessing a myopic view that only considers other systems that directly feed into the development of law and regulation’s own system (see Black, 2001, p. 107). This theory does not negate the fact that the social still influences and is influenced by the legal. As Minkinen (2013, p. 86) describes, socio-legal studies allows for a reformation of “societal needs” through arguments framed that begin or end with the phrase, ““according to the law as it ought to be”” instead of merely ““according to the law as it is.””

To construct a socio-legal analysis in the net neutrality debates, I will draw on Max Weber’s (1978) classic *formal rationality* conception of law. Weber’s (1978) *formal* element is the rules and guidelines that are internal to a system, and his *rational* element follows calculated

criteria equally and consistently applied across all cases. Thus, *formal rationality* provides predictability, calculability, and stability in society and sees law as impartial in applying internally-generated rules across like cases. An example of a formal rational law is 47 U.S.C. § 153(51), which forbids any federal or state *common-carriage* regulation of *information* services.

Bringing the ‘socio-legal’ into the ‘formal rational’ mix, and for the sake of simplicity, I will characterize this dimension as ‘formal law and regulation.’ Formal law and regulation will comprise of two components. The two components will merge ‘according to the law as it is’ and ‘according to the law as it ought to be.’ Formal law and regulation comprise of empirical and normative components. The empirical component will question what the role of law and regulation is for the governing of data packets and the Web. The empirical component will assess legal and regulatory facts, proscriptions, and outcomes anticipated by arguing for or against net neutrality principles. Furthermore, the normative component will question how actors and institutions understand the role of law and regulation and how they disagree with others about how and to what extent data packets and the Web ought to be governed. The normativity component will assess value-judgement narratives and stories.

The Web has slowly developed “norms about the free exchange of information” that could supplant the norms entrenched in laws and regulations (Reed, 2012, p. 220). Law and regulation can be flexible. Law can still delegate regulatory powers and provide “purposive interpretation in the courts,” while self-regulation can still form “co-regulatory” strategies (Brownsword, 2012, p. 265). Despite this flexibility, Brownsword (2020, p. 5) urges that we should think carefully about how legal rules and norms are parts of regulatory environments. Instead of focusing only on legal rules and norms, we should think how regulation can use both normative and non-normative tools. Normative tools are about what ought to be done, while non-

normative tools are about what can and cannot be done. In addition, statutory norms are merely representative of the times as they are the “solidification of a [particular] political debate” (Bayamlioğlu & Leenes, 2018, p. 305). Society progresses as do norms, which must adapt to changing knowledge, facts, and interests (p. 305). But is norm adaptability enough to make the case for law’s governance over technology? de Vires and van Dijk (2013, p. 90) ask the important question about whether law is worth defending against the ubiquitous techno-regulation we see. If it is, can law be integrated within techno-regulation?

Computer code, like all of technology, is not neutral but contains—implicitly and explicitly—norms, values, and assumptions of its designers and makers. Techno-regulation is the intentional influencing of behaviour by embedding norms into technology (van der Berg & Leenes, 2013, p. 68). Behaviour is steered deliberately through the use of technological devices and services (p. 68). Crofts and van Rijswijk (2021) use van der Laan’s (2016) mapping of three myths of technology (i.e., idealistic, dystopian, and ambivalent) to frame socio-legal responses to technology.

Under the idealistic myth of technology, technology like the Web is portrayed as positive and utopian, as being participatory and egalitarian (Crofts & van Rijswijk, 2021, p. 5). Technological design and innovation enhances human lives. Under the dystopian myth of technology, technology becomes pervasive and deterministic in how humans lead their lives (p. 9). Taking a darker tone than the idealistic myth, technology ratchets up a new war frontier in cyber security, inequality of access to devices and services, and a lack of privacy in ubiquitous surveillance of movement online and offline. Technological efficiency and optimization are priorities put ahead of human needs and values (p. 11). Under the ambivalent myth of technology, technology is portrayed as having two competing and conflicting views. The

solutions to dystopian implications that can arise in technology are to encourage more productivity, a better assessment of morals and ethics in design, and greater optimization and efficiency in distribution. Hence, the solution to combating evil technology is replacing it with good technology. Humans have an “intimate alliance” with technology; thus, improving how humans interface with technology is key to its adoption (p. 15). Crofts and van Rijswijk (p. 3) argue that “technology cannot be separated from its political, economic[,] and social context—nor from the historical and material conditions from which it arises.” Technology is not neutral. Technology is carefully and intentionally designed.

Lawrence Lessig (1999, p. 221) asks what role and responsibility the FCC and other public regulatory agencies have in defining and exercising regulation over an entire industry. According to Lessig (1999), law is one modality for shaping social behaviour and outcomes, as is the market, social norms, and technology (also known as architecture or code). There are modes of regulation for each of these four modalities. The architecture is the regulatory mechanism that embodies the mantra ‘code as law,’ where policy is encoded in the software (and therefore hardware) (1999, see also Reidenberg, 1998). Thus, regulating new technologies comprises of building a concordance between the modalities as an “optimal mix” to satisfy the aims of technological practices (Lessig, 1999). The four modalities are supposed to converge and regulate social behaviour and outcomes. Brownsword (2012, p. 261) points out that under the mantra ‘code as law,’ both private and public regulation activities instruct regulatees how they can and cannot act. Binary instructions force compliance upon regulatees, giving no sense of choice to morally and/or ethically act on their own.

Sandoval (2009, p. 656) changes Lessig’s (1999) mantra ‘code as law’ to ‘code as control’ to emphasize that code is used to manage networks and “discourage the growth of

applications that may compete” with the capital gains of ISPs. Gutwirth et al. (2008, p. 197) criticize Lessig’s ‘optimal mix’ by arguing how it can only be measured politically by the success and failure of political agendas being applied to technology. To mark all four modalities under one common regulatory directive is to centre debates around one single policy goal. The optimal mix also reduces law to a “regulation-oriented practice” (p. 196). Law is expected to allow regulation to eclipse its pervasiveness in industry-specific reach. Yet, Gutwirth et al. (p. 196) ask, “what happens if there is nothing more important than law’s own ends?”

Tien (2004) and Brownsword (2005) claim that techno-regulation will only work when the rule is definite, indisputable, undeniable, and does not require discretion. Hildebrandt and Koops (2010) argue that we should transition from law on the books to law in other technologies, or ‘ambient law’ since law always finds a way to map itself onto new technologies. Law can be embedded *in* code instead of *as* code. Other authors wish to separate law from code. Oster (2021, p. 117) emphatically says that “code is code and law is law.” Computer codes and technology-based rules with legal codes and legal rules have become conflated. Clearly, legislators enact laws, the executive carries out laws, and the judicial evaluates laws. Law can limit the use of technology. On the other hand, norms that regulate behaviour that are built into technology are used to enforce laws (Koops, 2008, p. 159). Norms embedded in technology set “their own standards in absolutely enforcing existing legal rights or in establishing new rights” (pp. 159–160).

Brownsword offers frameworks to understand the disruption of law by new technologies and calls for a reimagining of law. Brownsword carefully sketches how technology disrupts and displaces law in two transitional stages from Law 1.0 to Law 2.0 and from Law 2.0 to Law 3.0. Law 1.0 portrays coherentist thinking, Law 2.0 depicts regulatory-instrumentalist thinking, and

Law 3.0 describes technocratic thinking. Let us take each of these frameworks in turn to explore their characteristics.

Law 1.0 is considered an off-line sphere of “top-down” regulatory intervention with regulators and regulatees (Brownsword, 2012, p. 251). Coherentists believe in the “integrity and internal consistency of legal doctrine” instead of a belief in law’s regulatory action (Brownsword, 2020, p. 32). Coherentists also force “existing legal categories” onto new technologies (p. 32). Legal reasoning should be rooted in general principles of law where actors and institutions operate under the enforcement of bargaining transactions. The function of law employs ex-post “correction and compensation” (p. 32). The focus is exclusively on upholding “legal concepts, categories, and classifications” instead of customized legal responses (p. 32). A speed limit sign for vehicles with driver demerit points associated with speed infractions on the highway is meant to convey how fast drivers ought to drive to remain safe.

Law 2.0 is considered an online networked technological sphere that promotes more self-regulatory intervention than Law 1.0. The “regulatory co-option” of ISPs creates more real-time ubiquitous surveillance between regulators and regulatees (Brownsword, 2012, p. 251). Both Law 2.0 and Law 1.0 signal what acts are “prohibited, permitted, or required” by empirical and normative judgements (i.e., ‘as is’ and ‘oughts’) (Brownsword, 2016, p. 102). However, Law 2.0 uses more normative judgements through technological instruments, complemented or supplemented by “normative legal standards” (Brownsword, 2019, p. 42). Regulators set standards to guide regulatees’ conduct through “prudential or moral or combined prudential-moral registers” (p. 58). “Surveillance, tracking, and identifying” technologies embed normative judgements that aim to detect non-compliance (p. 58).

In Law 2.0, regulatory-instrumentalists ask whether rules align with emerging technologies. Over-regulation may stifle the design and application of technologies and under-regulation may pose risks to actors and institutions, such as physical, psychological, or financial harm (Brownsword, 2020, p. 21). Regulatory objectives must be consistent with legal doctrine; law must be “instrumentally effective” in serving regulation (p. 33). Unlike coherentists, regulatory-instrumentalists willingly enact customized “effective and efficient” legal responses to technologies (p. 33). Policies take precedence over general principles of jurisprudence, along with balancing benefits and risks to the population (p. 33). Risk management is therefore geared to ex-ante prevention instead of ex-post correction (p. 33). If legislators, policy-makers, and regulatory agencies fail to achieve normative standards from regulatory intervention, additional regulatory intervention is required (p. 33). A red light (or speed) camera is a surveillance device that intends to alter driver behaviour by reducing vehicle speed and by thinking twice before entering an intersection while the light changes from yellow to red. The purpose of such a technological device is to reduce vehicular collisions and manage overall safety of other drivers, pedestrians and cyclists, and public and private infrastructure. There is a greater ability to detect rules-of-the-road infractions in Law 2.0. Law 2.0 thus attempts to alter “people’s rationality and morality” (Crofts & van Rijswijk, 2021, p. 12).

Law 3.0 is a “digitally dominated sphere” where the off-line world adapts to the online environment (Brownsword, 2012, p. 251). Law 3.0 is known as technological management and includes non-normative measurements of what is possible and impossible, what can and cannot be done (Brownsword, 2016, p. 102). In Law 1.0, Law 2.0, and Law 3.0, promulgation of law and legality are important. But in Law 3.0, proposals for using technological management are to be promulgated, not what is prohibited, permitted, or required by normative judgments

embedded in rules. The inputs of the regulatory process of technological management need to be published (p. 119). There is a dialogue needed between regulatees and regulators for setting terms and conditions for uses and measures of technological management; transparency is key to understanding implications to technology (pp. 138–139). Regulators target patterns of behaviour through technological design and architecture to “channel regulatees in desired ways” or put them in certain “contexts” to act through “practicality/possibility” (Brownsword, 2019, p. 58).

Brownsword (2016, p. 103) argues that regulators “translate the underlying normative view into a practical design” that dictates that regulatees do or do not proceed with certain behaviour and actions. This non-normative technological management framework still has implicit normative intentions, but ensures that its regulatees instantly understand what can and cannot be done rather than what ought or ought not be done (p. 103). Technocratic thinking still holds a normative intention behind the binary condition of possibility in that regulatees are permitted or prohibited from following instructions. The difference between technocratic thinking versus regulatory-instrumentalist and coherentist thinking is that there is no moral agency to choose to defy a rule. Drivers will not be able to exceed posted speed limits on the highway under the conditions made possible by the vehicle manufacturer’s software, programmed to abide by rules-of-the-road speed limits. Or drivers will not be able to leave their parked position until every passenger has their seatbelts buckled.

Law 3.0’s technocratic thinking looks for technological solutions in place of drafting new laws (Brownsword, 2020, p. 34). Some communities may reject the use of a technological management framework though. Communities may believe that guaranteed compliance gives no room for moral choice to exist for humans to make. Other communities may believe that regulation through rules provides “interpretive flexibility” and “public participation in setting

standards” (p. 35). Regulatees may be able to protest before and after legislative approval of technology. Regulatees may directly interfere with the technology itself (e.g., denial-of-service attacks) or indirectly by breaking other regulations and laws (p. 62). By contrast, if technological management has been secured, “conscientious objection and non-compliance” will be unavailable (p. 62). Although difficult to do, Brownsword calls for a need for regulatees to “air their objections before technological management has been authorized” (pp. 62–63). Regulatees should always have the ability to challenge “immoral regulatory purpose” and “morality-corroding” technocratic thinking (p. 63).

Net neutrality is one debate that will raise questions about how law can be integrated within techno-regulation and how private and multilateral Internet governance regimes govern data packets and the Web through Law 1.0, Law 2.0, and Law 3.0 frameworks. Section 1.4 will explore the tenets of net neutrality, its principles fought over between net neutrality advocates and opponents during the span of 2003–2020, the themes that dominate the net neutrality literature (i.e., economics, technology, politics, and law and regulation), landmark cases, and controversies entrenched in the 2017 *Restoring Internet Freedom* Order debacle and U.S.-China trade war.

1.4 – Identifying Locations in the Net Neutrality Literature & Contextualizing the *Restoring Internet Freedom* Order

Section 1.4 first explores the tenets of net neutrality from its use in terminology to general principles. Net neutrality advocates and opponents distinctly separate their arguments for or against net neutrality. The former adopts a determinist approach by pointing to technology as preserving originally built-in principles that must not be violated or altered, while the latter adopts an instrumentalist approach by citing minimal state government intervention, flexibility

and innovativeness of the private sector, and link light-touch regulation to innovation. I argue that net neutrality principles have U.S. norms and values embedded, like harnessing a free flow of data, maintaining an open Internet, promoting free speech, allowing fair open market entry, and evading state and federal government interference.

Secondly, I review the four socio-legal themes of economics, technology, politics, and law and regulation, which are built off of Powers and Jablonski's (2015) work that examines political state government efforts to control ICT (information and communications technology) through laws and regulations, social norm development, and technology innovation, and how the private industry aims to financially benefit from the "normalization of [I]nternet-freedom ideologies" (p. 590).

Third, I evaluate landmark legal cases and regulatory rulings from 2002–2015 to arrive at the 2017 Order debacle. Key highlights from the debacle include (i) relinquishing the FCC's own investigative authority over ISPs' practices; (ii) the John Oliver HBO show's net neutrality segment that allegedly crashed FCC servers from a DDoS (distributed denial-of-service) attack, Russian IP (Internet Protocol) and email addresses, and bots; (iii) an alleged bomb threat in the room where the vote to repeal the 2015 Order was taking place; and (iv) how part of the FCC's rationale for the 2015 Order repeal was premised on an academic journal article supported and submitted by a coalition of technology leaders, start-ups, ISPs, entrepreneurs, and venture capitalists who claim to educate policymakers, elected officials, and regulators about the digital economy, where both the lead author and the coalition conspired with AT&T.

Lastly, I contextualize the net neutrality debate within the broader political climate of heightened political partisanship of the Trump Republican administration that sought to reverse Obama-era rules. Specifically, I examine how Trump ramped up the U.S.-China trade war in part

over concerns that China is outpacing the U.S. in microchip processing, artificial intelligence, robotics, and 5G. This concern may explain why the U.S. took their position on net neutrality if they regarded that issue as part of a wider fight for U.S. technological domination.

Net neutrality is a national issue. What is at stake is tension between ISPs' physical and intellectual property ownership versus the removal of barriers to independent business innovation, equal access for digitally-disenfranchised actors, consumer protection, and free speech (e.g., see Kan, 2016), to name only a few. ISPs have been accused in the past about 'redlining' practices (e.g., see McMurria, 2019). Redlining in this context refers to ISPs focusing on investing in deploying broadband technologies in high-income urban, suburban, and middle-income neighborhoods. High poverty rates correlate with decisions not to invest, like in low-income communities of colour. Tim Wu (2003) coined the net neutrality principle to prevent anti-competitive conduct and protect market and business innovation (Beard et al., 2007, p. 150). In this view, ISPs should serve as conduits, not controllers, for how users access and navigate Web content and applications. Prioritizing and blocking flows and throttling speeds of proprietary, and what ISPs deem the most profitable, traffic is net neutrality's antithesis (Atkinson & Weiser, 2006, p. 47).

Access to data and the exchange of information should be open (DeNardis, 2016), free (Wu, 2004), non-exclusionary (Mueller, 2012), and non-discriminatory (Anderson, 2014) for how users, content and application developers, network managers, and ISPs interact with flows of Web data transmissions. Lyons (2012, p. 1038) describes net neutrality as "regulating the Internet's off ramp," where users interact with and receive content and applications. Jordan (2007, p. 428) adds that net neutrality is supposed to ensure users that the Web and other Internet applications and content they access is not rendered discriminatory by ISPs in that data packets

should have “limited differentiation.” The importance of net neutrality can be distilled to promoting innovation and competition in the Internet market economy while still being able to freely access “lawful content” and manage network “performance, latency, and the quality of service” (DeNardis, 2020, p. 177).

Net neutrality principles began to be formulated well before Wu’s 2003 article. Noam (1994, p. 452) suggested that to promote the diversity and flow of information, neutral interconnection should be implemented to not allow for contract or common carriers to “pick some bits over other bits” if they interconnect to other carriers’ networks. In other words, carriers should abide by rules of “non-exclusive interconnection” and “neutral traffic acceptance” (p. 452). Likewise, de Sola Pool (1983) argued for policies to regulate communication technologies well before the commercial Web was available. His list of policies combined the best of both present-day net neutrality advocates and opponents’ arguments. Some of de Sola Pool’s arguments included how media applications and content should be equally accessible, communication use and content should be equally applied through standard rules, carriers should not use their power to control content, non-discriminatory interconnections should be guaranteed, carriers should be open and accountable to public and regulatory scrutiny, regulatory enforcement must be *ex poste*, and regulation should be light and not overbearing (pp. 246–249).

In addition to early formulations, the term *neutrality* in *net neutrality* is disputed by questioning whether the Internet (and Web) is truly neutral. DeNardis (2014, pp. 148–149; see also Hass, 2007) points out that net neutrality might not be so neutral since it requires lawmakers, regulators, and policymakers to direct how ISPs should not prioritize, block, or throttle data packets. With each new change in administration, the FCC majority supports or opposes net neutrality principles; thus, a choice is made to argue for or against net neutrality.

Moreover, net neutrality still follows some degree of normative values. ISPs are clearly not neutral in their decisions to govern data packets equally at the same speed for all users and application and content types. Regulators like the FCC and the FTC are not neutral either in their decision-making to govern data packets and the Web. The actions and arguments about sustaining or repealing net neutrality are never neutral.

Within the net neutrality debates, the two competing sides have assumed different monikers, such as *openists* or *proponents* of net neutrality versus *deregulationists* or *adversaries* of net neutrality. So far in Chapter 1, and indeed throughout the rest of the seven chapters, I have been referring to, and will continue to refer to, the two competing sides as *net neutrality advocates* and *net neutrality opponents*. Net neutrality advocates focus on the innovation commons, a conceptual space defined by protocols that govern data being sent and received across the entire network. Net neutrality advocates argue that preserving open access to creatively participate in content and application development and consumption is an essential pillar of the innovation commons (Wu, 2004, p. 79; Krämer & Wiewiorra, 2009, p. 2). The innovation commons maintain a space for fair market competition and free will to access websites without restrictions from ISPs (Wu, 2004, p. 74). ISPs' vertical integration from the governance of data packets harms consumers. Most innovation comes from application developers and content creators anyway, which is mainly why users access the Web in the first place. As well, keeping the Web open as an information exchange of ideas maximizes social participation and welfare (Jordan, 2007, p. 429).

In contrast, net neutrality opponents focus on the means of transmitting data without state intervention on a pay-per-use basis (Wu, 2004, p. 79). In this view, users and platforms who use excessive amounts of data on a shared network should pay full cost for goods and services

consumed. This model would promote greater broadband infrastructure investment and a spectrum of cheaper pricing options for those who use less data (Atkinson & Weiser, 2006, p. 47). Moreover, since packet switching creates congestion, prioritizing packets based on time, capacity, and payees seems logical to ISPs. Since ISPs foot most physical infrastructure and network equipment and management costs, they should reap the rewards of investment. Net neutrality opponents remind us that not all information is free from external control (e.g., dissemination or censorship guidelines found on YouTube). Platforms are also never neutral since author biases are entrenched in written or visual content or code language (see van Dijck et al., 2018). Ultimately, regulatory intervention will dissuade ISPs from further investing in infrastructure and other network goods and services. Less regulation of ISPs means greater risk taking and financial investment decisions that only stand to benefit customers and application and content providers (Jordan, 2007, p. 429). FTC-led antitrust and consumer protection laws are the preferred formal legal resource to access justice for net neutrality opponents. Both laws are purposed to provide a range of consumer choice and allow competitors to freely enter and compete in a given marketplace (Cherry, 2008, p. 960).

An alternative approach has been offered as a compromise between net neutrality advocates and opponents. The ideal compromise would be between the ends and the means of sharing and consuming data across telecommunication networks. This approach would consist of combining the ability for ISPs to charge for tiered services (e.g., charging higher monthly fees to those who consume excessive amounts of data) and ensuring FCC regulatory oversight in minimum quality of service guarantees. This alternative approach has never been adopted legally, regulatorily, or otherwise. Wu (2004, p. 71) argues that both sides want a regulatory framework that allows for fair “open market entry” and that rights for users and operators should

be largely free from state and federal government “hindrance.” A national economic policy would be a start for both sides in fostering and maintaining technological innovations.

Net neutrality advocates adopt a determinist approach by pointing to technology as preserving originally built-in principles that must not be violated or altered. Technology, not the user, has agency to dictate how information gets collected, transported, and consumed over the Web (Carr, 2016, p. 193). The determinist view attributes value and meaning to technology but is not confident in society’s ability to moderate the values and meanings (p. 34). By contrast, net neutrality opponents adopt an instrumental approach to technology by “expecting a solution to emerge from the private sector” (p. 192). Carr argues that instrumentalism views technology as “detached from any moral or value reading” (p. 34). Net neutrality opponents often cite minimal state government intervention, flexibility and innovativeness of the private sector, and link light-touch regulation to innovation.

The preference for the free flow of data, U.S.-style free speech, minimal state government regulation, and private sector investment over public regulation are all norms and values built into the legal orders and acts cited throughout this dissertation. Norms and values are not universal but rather instituted in the Web by early developers and advocates, largely American. Carr (2016, p. 157) observes how net neutrality advocates and opponents both believe that the Internet preserves a set of norms and values that is correlated in expansion of U.S. “economic power.” Where net neutrality advocates and opponents diverge in their arguments is deciding whether technology should be left on its own or guided by laws and regulations to forge the path to economic prosperity. Net neutrality principles have U.S. norms and values embedded into them, like harnessing a free flow of data, maintaining an open Internet, and promoting free speech. These U.S. norms and values are exported globally to hopefully be universalized. Net

neutrality advocates prescribe “equity, freedom of access[,] and a non-hierarchical structure,” which is essentially a promotion of technological determinism (p. 159). Here, technology has a path that is determined and has intrinsic values.

Other examples of how the online space reflects U.S. norms and ideals include the allowance of fair open market entry and that user and operator rights should be free from state and federal government interference. These examples reflect net neutrality opponents’ views. Most net neutrality opponents take a free market approach rather than favouring state government intervention in the form of regulation. Net neutrality principles are perceived as overbearing to the movements permitted in the ICT market. The argument by net neutrality opponents that the FCC should adopt a ‘light-touch’ regulation approach has implicit normative preferences. This draws on ideas that ICTs require industry self-regulation to facilitate innovation. By the same token, state and federal government regulation is discredited as inflexible, inefficient, and out of touch. Carr (2016, p. 157) points out that net neutrality opponents take a status quo position to let present market forces shape technology. Thus, instead of trying to mould an unpredictable future, ICTs should be left alone to develop. Moreover, the source of authority should be market forces, not heavy-handed government intervention. The only interference with market forces should come when market forces fail (p. 159). Net neutrality opponents believe that technology is value-neutral and “best driven by commercial imperatives for innovation” (p. 159). This belief can be depicted as an instrumentalist view, compared to the determinist view held by net neutrality advocates.

ten Oever (2021, p. 65) understands Internet openness as the “public availability of process and outcome documents, discussion archives, as well as participatory decision-making.” Openness may cause closeness in the sense that the fire hydrant of information spraying

uncontrollably may be difficult for actors to filter and understand (p. 65). Nevertheless, norms and values like openness and decentralization are set aside for private Internet governance regime-driven priorities of interconnection and interoperability (p. 64). Most net neutrality opponents prioritize the needs and inner working of private industry. Furthermore, Tusikov et al. (2019, pp. 297–298) reference Susan Strange’s writings on knowledge structure when claiming that knowledge is legitimized by rules set by actors and institutions. This reference clashes with the American value of free speech since it is unregulated, so any attempts to suppress free speech is viewed as tyrannical. We should move beyond simple, yet provocative, discussions about free speech versus free speech censorship. If we accept Strange’s claim that all knowledge is regulated, we should then focus on the forms of regulation that should or should not exist. Tusikov et al. (p. 299) urge us to understand how “regulation occurs, who benefits, and who bears the consequences.”

The conceptualization of the Internet and the Web is indeed a U.S. political construct. The literature depicts net neutrality as a national issue that affects the corporations and populace that operate and reside in that country. If one were to type into Wikipedia “net neutrality by country,” a snapshot of whether and to what extent net neutrality principles are enforced or not in 22 countries would be summarized. This dissertation limits the geographic scope to the U.S. But the impact that U.S. net neutrality policy has had on other countries, corporations, and people around the globe is not a trite point. The U.S. sets ideas and standards globally for how net neutrality principles should or should not be upheld. Extraterritorial application of U.S.-based rules and preferences are evident. The question must be asked: how do state governments manage information flow inside and outside geographic lines (Powers & Jablonski, 2015, p. 4719; 4754)? Powers and Jablonski (p. 590) examine political state government efforts to control

ICTs through laws and regulations, social norm development, and technology innovation, and how the private industry aims to financially benefit from the “normalization of [I]nternet-freedom ideologies,” such as openness or light-touch regulations. The socio-legal themes of economics, technology, politics, and law and regulation are built on Powers and Jablonski’s work.

Overall, can (and should) society shape technology? Carr (2016, p. 34) asks the important question: “if technology can promote or express positive or negative norms and values, to what extent is society able to navigate and direct them?” Understanding the social construction of technology is vital to know to what degree humans can impact technology through economics, politics, and laws and regulations. All four themes are social constructs by and for humans. The net neutrality debates centre on how ICTs are governed by economic theory, political (in)action, and carefully crafted laws and regulations to sustain or dismantle net neutrality principles.

Data packets become commodified by ISPs who rely on network congestion to charge higher prices for tiered access (Economides, 2010, p. 13). Specifically, the economics literature attempts to trace price discrimination and the nature of the broadband market by identifying how monopolists, instead of multiple producers, compete (Yoo, 2005, p. 29). Net neutrality opponents argue that horizontal competition where competitors compete within a market is unsustainable; instead, vertical competition where monopolists compete for the market is sustainable. This approach in the literature is rooted in Schumpeterian competition. This theory refers to how monopolists replace horizontal competition amongst stakeholders who offer similar products and services to customers (Wu & Yoo, 2007, p. 583).

Another economics approach details two-sided market theory, illustrating how developers and creators rely on broadband service to reach users, and how users rely on broadband service

to reach content and applications (Hahn et al., 2010, p. 8). ISPs are thus portrayed as the gatekeepers for content regulation since they provide infrastructure and promote platforms and content through partnerships (Crawford, 2007). Net neutrality advocates argue that price discrimination and differential pricing could occur under power ISPs could assume as gatekeepers. Boliek (2011, pp. 1678–1679) differentiates between price discrimination and differential pricing where the former is when an ISP charges different prices to its customers for the same service, and the latter is where an ISP charges its customers a different price for different types of service.

Yoo (2005, p. 42) argues that trying to implement rate regulations and non-discriminatory rules on data packets and competition are difficult in technology-defined industries. Furthermore, Mansell (2012) argues that there is a real challenge bestowed upon law makers and regulators. The challenge is to decide how “technical interventions of ISPs run counter” to net neutrality principles and if public service is upheld (p. 164). Becker et al. (2010, p. 519) relatedly forewarn how regulatory interventions can delay the deployment of new technologies and therefore hurt consumers and the field of competition in the end. Net neutrality advocates and opponents contend over logistics in respects to how law and regulation fail to accommodate 5G’s network slicing (see Yoo & Lambert, 2019). 5G requires a prioritization on networks with responsiveness across high frequency waves which allow network towers to send and receive more data faster. 5G’s paid prioritization requirement, along with blocking and throttling data, violates the basic principles of net neutrality.

One intended consequence pointed out in the politics theme is exploiting consumers to guided and predetermined spaces constructed by ISPs and their affiliates, essentially closing free travel across the open Web. Continuing to use something is not indicative of consent to control

access to Web content and services by excluding ISP-unaffiliated providers. DeNardis (2016, p. 10; see also Best & Wade, 2007) discusses how openness can refer to “technical openness” with the ability to contribute to a network, “civil-liberties openness” with fighting for the freedom of online expression and access, and “openness of digital markets” with equal entry access to fair competition. In addition, scholarship has explored the limiting of creative expression to flourish in a naturally creative domain, including the censoring of online free speech (see Ammori, 2009; Anderson, 2014; Cherry, 2006; Reicher, 2011; and Sashkin, 2006). For instance, Reicher (2011, p. 737) details how free speech arguments are centred around “censorship of perspectives” and not just about silencing voices like start-up businesses through barriers of entry to the marketplace. The politics theme has also touched on the inequality found in creating barriers for accessing data by disenfranchised actors who live in infrastructurally and/or resource-depleted (i.e., low-income) neighbourhoods. ISPs do not invest in certain neighbourhoods because of low-projected financial returns, limiting a fundamental service many users and businesses rely on.

Sometimes, not all Democratic Party members were self-identified advocates of net neutrality, nor were all Republican Party members opponents of net neutrality. Nevertheless, the highly partisan nature of the net neutrality debates still shines through with the majority of Democrats holding the opinion of net neutrality advocates and the majority of Republicans holding the opinions of net neutrality opponents. Inflamed rhetoric on both sides of any debate is a normal part of politics, but the net neutrality debate was certainly heightened during the reign of Republican President Donald Trump’s administrative occupancy. The political climate could be characterized as a partisan divide where the Trump administration sought to reverse many Democratic President Barack Obama-era rules. The politically partisan backgrounds of net

neutrality advocate and opponent actors and institutions/organizations have been and will continue to be identified throughout these debates.

Analyzing artefacts and strategies such as laws, bills, acts, legal efforts, legislations, regulations, policies, orders, and classifications will help root arguments in written fact and base legal and regulatory outcomes on precedent. Scholars have assessed a wide array of legal challenges and outcomes in court cases (Nuechterlein & Weiser, 2013; Terry & Memmel, 2020; Terry et al., 2019), Title I versus II classifications (Friedlander, 2016; Steffe, 2010), whether the FTC could replace the FCC as the regulatory authority over ISPs (Boliek, 2011; Zelnick & Zelnick, 2013), and the issue of jurisdiction (Kleinwachter, 2008; Braverman, 2010). Economides (2008, pp. 229–230) provides some of the standing issues around implementing laws and regulations in the net neutrality debates. Lawsuits can take a long time to resolve if an ISP is accused of harming consumers or competitors through the goods and services it provides. One question Congress must ask is whether it should implement non-discrimination rules by enacting law or if it should wait for antitrust suits to run their course. Since Congress itself is a monolith of slow deliberations and outcomes on issues, the FCC is turned to as the regulation authority over the BIAS (broadband Internet access service) industry, even though more regulatory oversight from the FTC was wanted under the Chairman Pai-led commission. The FCC “addresses issues more on a legislative-like basis ... under a rule-of-law model” (Weiser, 2008, p. 318), but the FCC can still enforce rights in the absence of laws (Chong, 2007, p. 152).

Legal cases and regulatory rulings about net neutrality violations have been extensively covered in the literature. There are a vast number of authors who provide excellent summaries (especially Candeub & McCartney, 2012) of the comprehensive list of legal cases and regulatory rulings, but four who stand out are Nuechterlein and Weiser (2013) and Terry and Memmel

(2020). I begin in 2002 when the FCC's *Cable Broadband Order* (cited as Declaratory Ruling) proclaimed that cable broadband service fell outside of Title II *telecommunication* services and within Title I *information* services. In 2003, the Ninth Circuit overturned the order to rule that cable broadband service is both classified under Title II and Title I. However, a 2005 landmark case in *National Cable & Telecommunications Ass'n v. Brand X Internet Services* repealed the Ninth Circuit's ruling and reinstated cable broadband services under Title I (Nuechterlein & Weiser, 2013, pp. 194–195).

An instance of net neutrality violations came in the form of an ISP blocking VoIP (voice over Internet Protocol) services in 2005. Madison River Communications blocked customer access to VoIP to “protect the lucrative access charged it earned for handling long-distance calls” made by a standard telephone call (Nuechterlein & Weiser, 2013, p. 199). Another major net neutrality violation came from when Comcast allegedly manipulated data packet headers in 2007 to block customers from accessing BitTorrent, a leading application used to upload and download files. BitTorrent and other peer-to-peer filesharing software applications and torrent-hosting websites, such as The Pirate Bay, succumbed to controversy for its ability to traffic copyright-infringing works, like films. The FCC's 2008 *Comcast Order* (cited as Formal Complaint) used Title I jurisdiction to condemn Comcast for blocking applications and deemed the act unlawful since it violated the FCC's *Broadband Policy Statement* (cited as Appropriate Framework) and the Communications Act of 1934. However, the D.C. Circuit threw out the *Comcast Order* on the basis that the FCC had no authoritative power to invoke such a ruling under the reign of Title I classification (Nuechterlein & Weiser, 2013, pp. 199–200).

In response to the *Comcast Order's* (cited as Formal Complaint) reversal, the FCC implemented its *Open Internet Order* in 2010 (hereinafter 2010 Order) to issue net neutrality

protections against harmful BIAS practices by ISPs, including no blocking of data packets. ISPs could block or degrade data packets if it was for reasonable network management purposes—an industry standard to maintain a network by considering the network architecture and technology of BIAS (Nuechterlein & Weiser, 2013, p. 200; p. 201). The 2010 Order also issued rules around transparency (i.e., publicly disclosing information about network management, performance, and commercial practices of BIAS) and non-discrimination (i.e., unreasonable discrimination of lawful data packets) (Terry & Memmel, 2020, pp. 170–171). There was one standing issue though: the 2010 Order did not reclassify ISPs under Title II classification. Verizon (2014) challenged the 2010 Order, and the D.C. Circuit found in part that the FCC’s classification of ISPs exempted them from treatment as common carriers. As well, the Communications Act of 1934 prohibited the FCC from regulating ISPs as common carriers. Two net neutrality principles in the 2010 Order (i.e., anti-discrimination and anti-blocking) rendered ISPs as common carriers, a violation of the Communications Act (Terry & Memmel, 2020, pp. 171–172).

In 2015, the FCC eventually reclassified ISPs as common carriers under Title II classification and § 706 of the Telecommunications Act of 1996. The 2015 *Open Internet* Order (hereinafter 2015 Order) was the closest form of regulation that sustained net neutrality principles the FCC ever initiated. Three bright-line rules prohibited ISPs from blocking, throttling, and prioritizing data packets. In the 2016 case, *U.S. Telecom Ass’n v. FCC*, the D.C. Circuit upheld the 2015 Order by citing how the FCC had authoritative right to pass the order and satisfied the Administrative Procedure Act’s test for validity by providing adequate notice for the public to comment on its NPRM (notice-of-proposed-rulemaking). The D.C. Circuit found that BIAS was within the FCC’s jurisdiction as an interstate service (Terry & Memmel, 2020, pp. 173–174).

The 2017 Order repealed the 2015 Order through an FCC vote of 3–2 along party lines. In December 2017, the Trump-appointed Republican Chairman of the FCC issued an order dismantling the 2015 Obama-era policy on the *Open Internet*. The 2017 Order implemented key policies, including: (i) relinquishing the FCC’s own investigative authority over ISPs’ practices and (ii) deeming BIAS an *information* service rather than a *telecommunication* service. In doing so, the 2017 Order dismantled the 2015 Order, which had prohibited blocking, throttling, and paid prioritization of data packets. The 2015 Order had partly served to reinstate investigative authority to the FCC after the 2005 U.S. Supreme Court case, *National Cable & Telecommunications Ass’n v. Brand X Internet Services*. This judgement deemed broadband an *information* service, not a *telecommunication* service. As a result of the decision, the FCC’s influence was weakened since its regulatory powers rested in the telecommunications field. The 2017 Order sought to adopt a market and technology-first approach to ISP regulation, an approach that would enable restrictions on Internet openness by large corporations and remove the FCC from micromanaging the Internet.

John Oliver from HBO’s *Last Week Tonight with John Oliver* encouraged viewers to comment on the repeal of net neutrality protections as a lead-up to and during the FCC’s call for the public to submit comments to its ECFS (Electronic Comment Filing System) between April 2017 until August 2017. Oliver told viewers to submit comments to <http://gofccyourself.com> to support net neutrality rules backed by Title II. Becker and Bode (2018, p. 617) expected that Oliver’s comedic and satirical take on net neutrality should have eased “viewers’ apprehension” to view the “technical policy proposal as less difficult to solve.” According to the FCC, this call on the public to comment by Oliver lead to an influx in site traffic, eventually crashing the FCC’s servers. The FCC blamed the crash on a DDoS attack. Of the 22 million comments

submitted at the time, 18 million were allegedly fraudulent and suspected to come from Russian IP and email addresses and bots, and with some commenters who were fabricated and some people who had their identities stolen. Journalists, data research companies, and law enforcement agencies led investigations into the ECFS fraudulent comments debacle. Net neutrality advocates Democratic New York Attorney General Eric Schneiderman and Democratic FCC Commissioner Jessica Rosenworcel made specific references to living and deceased people who had their identities stolen. Net neutrality advocates criticized the FCC for proceeding with the 2017 Order hearing with state and federal identity theft laws being ignored and for withholding its server logs from being reviewed.

Before voting to repeal the 2015 Order's net neutrality protections, Republican FCC Chairman Ajit Pai's 2017 Order hearing statement was interrupted. A U.S. Department of Homeland Security agent ordered everyone to immediately leave the premises based on a mysterious phone call about an explosive device set to detonate in 30 minutes in the room where the hearing was taking place. As additional security agents sprawled across the room, two brought in explosive detection canines to sweep for bombs.

According to an academic journal article written by Faulhaber et al. (2017), Oliver's call to action and his infusion of populism displaced economics in the FCC. Faulhaber et al. (2017, p. 1227) also compare the irrelevancy of the FCC to the Interstate Commerce Commission which "went out of business" when the Staggers Rail Act of 1980 "deregulated railroads." The authors hypothesize that the FCC is trying to avoid its irrelevancy and demise by clinging to net neutrality. A more comprehensive version of Faulhaber et al.'s (2017) article was submitted to the FCC's official docket by CALinnovates, a San Francisco, California coalition of technology leaders, start-ups, ISPs, entrepreneurs, and venture capitalists. Winseck and Pooley (2017)

reported that this version of the article was cited by the Republican FCC Chairman to support the reduction of state government oversight. State-corporate-academic collusion is pointed out, especially since Faulhaber used to be Director of Strategic Planning and Financial Management at AT&T after working as Head of Economics at Bell Laboratories, and the fact that CALinnovates received financial support from AT&T for research in the past. In other words, part of the FCC's rationale for the 2015 Order repeal was premised on an academic journal article, which was supported and submitted by a coalition of technology leaders, start-ups, ISPs, entrepreneurs, and venture capitalists who claim to educate policymakers, elected officials, and regulators about the digital economy, where both the lead author and the coalition conspired with the world's largest telecommunications company.

CALinnovates was cited five separate times throughout the 2017 Order. Net neutrality advocates questioned CALinnovates' role and influence in lobbying the FCC as a putative voice for ISPs. In fact, a lobbying disclosure showed how CALinnovates received \$100,000 from AT&T. According to Winseck and Pooley (2017, pp. 2710–2712), Faulhaber et al.'s (2017) claim that the FCC is void of economists and economics-driven decision-making is not true. On July 3, 2017, Pooley submitted his co-authored article to the FCC's ECFS and prefaced it with a letter that partly read:

Our reply reviews FCC workshops, roundtables, seminars, dockets[,] and rulings—including during the ...[2015 Order] and several mergers and acquisitions—to refute ... that economists had been sidelined in the Obama-era FCC. We also document that paper's undisclosed origins as a white paper commissioned by an advocacy group with deep ties to the telecommunications industry. We are submitting our article ... because

you and other FCC officials have cited ... [their] paper without notice of this funding background nor the weakness of its substantive claims (Pooley, 2017).

Narratives and stories such as this one that point to influence over regulatory agencies will be witnessed throughout the dissertation, especially in Chapter 5.

Overall, the net neutrality debate can be contextualized within the broader political climate of heightened political partisanship of the Trump Republican administration that sought to reverse Obama-era rules. Republican FCC Chairman Ajit Pai was appointed by Trump and the Trump Republican administration took a hardline approach to all things Californian—a known left-leaning liberal (Democratic) state. Powers and Jablonski (2015, pp. 1773–1776) argue that aligning national interests with private interests have become evident in the technology realm since ICT companies are vital to “national economies and security.” Chinese ICT firms are major drivers behind 5G and this has caused major geopolitical tensions between other countries, especially the Five Eyes (i.e., U.S., UK, Australia, New Zealand, and Canada). Trump ramped up the U.S.-China trade war in part over concerns that China is outpacing the U.S. in key technologies, including microchip processing, artificial intelligence, robotics, and 5G. This concern may explain why the U.S. took the position they did on net neutrality if they regarded that issue as part of a wider fight for U.S. technological domination.

Since the early 1990s, the Western world intended to bring other countries, like China, into channels of economic trade, starting with an invitation into the World Trade Organization. One hope was to break authoritarian regimes into more democratized partners that the U.S. could work with to commercialize goods and services through healthy trading practices (Friis & Lysne, 2021, p. 1177). The Trump Republican administration in 2018 began confronting America’s trading practices with China by questioning “trade” areas, “tariffs and industrial production,” and

“security” (p. 1177). Some of the accusations included China’s tendencies to subsidize U.S. industries, “manipulate currency, steal technology” and trade secrets, and place itself as a dominant market leader (p. 1177). The U.S. attempted (and is still attempting) to securitize China through various measures in economic sanctions and by convincing allied countries to follow suit. Chinese multinational technology corporation Huawei’s research and development investments in 5G technology was one target for the U.S. to securitize China and protect itself as a global leader in telecommunications technology.

In 2018, the U.S. aimed to prevent Chinese telecommunications equipment suppliers from building and delivering 5G infrastructure in the U.S. and in allied countries. The recurring reason why such action should be seriously considered was how Chinese telecommunications equipment could pose a “national security hazard” by opening a path to Chinese state espionage and harm “critical infrastructure” (Friis & Lysne, 2021, p. 1175). The fear was that Beijing, not Washington, will become an intelligence powerhouse that could potentially “deny Washington access to the networks that make global commerce and the projection of military power possible” (Zhang, 2021, p. 1446). 5G was thus made out to be a “geopolitical battleground” (p. 1446) under the context of a trade war. Liang and Ding (2021, p. 6) define a trade war as an economic conflict between international states who restrict the importation of goods and services “to achieve certain economic objectives.” One restriction measure could be the use of tariffs, or a state-imposed tax on imports or exports of goods. So, why target the flow of commerce to Huawei in particular?

According to Segal (2021, p. 158), Huawei spent \$15 billion on telecommunications research and development by 2018. In 2019, Huawei announced its Institute of Strategic Research, where it would invest \$300 million each year for the next five to 10 years in

technology. From 2019–2020, Huawei owned the most 5G patents in the world, was the second largest research and development investor in the world and spent more on research and development than Ericsson and Nokia combined, accounted for roughly 40 percent of global 5G infrastructure (along with Chinese company ZTE), and had over 90 commercial contracts to build 5G equipment (p. 150).

To give a high-level overview of the U.S.-China trade war, we begin in 2018 when the Trump Republican administration decided to ban the use of Huawei and ZTE telecommunications and services in the U.S. Armed Forces. This decision was primarily based on questions surrounding the influence of the Chinese Communist Party over Chinese companies, especially since the 2017 Chinese Intelligence Law requires Chinese company compliance in divulging information (Friis & Lysne, 2021, p. 1178; see also Hawes & Li, 2017 and Rühlig, 2020). However, Zhang (2021, pp. 1446) points out that Huawei has denied that it received requests from the Chinese government “to collect data from its equipment and networks.” In December 2018, Canadian officials arrested Meng Wanzhou, Huawei’s chief financial officer and daughter of Huawei’s founder Ren Zhengfei (p. 1444). Wanzhou was arrested by a request sent by the U.S. government to stand trial in the U.S. for violating U.S. sanctions on Iran with ““theft of trade secrets conspiracy, attempted theft of trade secrets, seven counts of wire fraud and one count of obstruction of justice”” (The United States Department of Justice, 2019; Zhang, 2021, pp. 1444–1445).

In 2019, the U.S. placed Huawei on its Entities List of companies not allowed to purchase U.S. products (Friis & Lysne, 2021, p. 1178). Huawei was wounded in the sense of being cut off from “critical supply chains and components” from its restrictions on exports, re-exports, and the “transfer of specific items to foreign entities” (Segal, 2021, p. 150). More specifically, the

Department of Commerce put “Huawei and 68 of its affiliates on its Bureau of Industry and Security (BIS) Entity List,” which meant that U.S. companies could not sell goods and services to Huawei unless prior approval was granted. As an example, Google removed its Android mobile operating system from Huawei’s smartphone devices (Zhang, 2021, p. 1445).

In 2020, the U.S. Department of Justice charged Huawei with conspiracy to violate the Racketeer Influenced and Corrupt Organizations (RICO) Act (see The United States Department of Justice, 2020). Moreover, Secretary of State, Mike Pompeo, committed to a ‘5G Clean Path’ system that would reroute correspondence from U.S. embassies off Chinese networks. This system developed into the ‘Clean Network’ initiative, which would protect computer security and computer-stored information from malicious actors and institutions. Some of the actions included excluding Chinese companies from applications stores, removing U.S. applications from Chinese applications stores, and barring the use of Chinese networks altogether (Friis & Lysne, 2021, p. 1178).

The net neutrality debate is a part of the U.S.-China trade war debate that is still unfolding today. In a twist of irony, as Sanger and Perlroth (2014) discuss four years before the trade war began, Edward Snowden revealed how the NSA (National Security Agency) secretly infiltrated Huawei’s servers to try to find connections with the Chinese People’s Liberation Army and tracked top executives, including Zhengfei’s personal communications. The battle for net neutrality principles aligning or misaligning with the technological possibility of 5G operations may help explain why net neutrality opponents took the position they did. Net neutrality opponents aligned their arguments to the allegiance of the Trump Republican administration’s fight against the weakening of the U.S. in the global race for technology dominance.

Law can still limit the use of technology, as we saw with the U.S.-China trade war over limiting Huawei's 5G dominance. 5G has its own Law 3.0 technological management capabilities that may violate net neutrality policies. But 5G can only operate in a vacuum because of the broader conditions fostered by the trade war. The broader conditions were fostered not only by multinational corporations but also by the multilateral Internet governance regime (i.e., the state). The state is focussed on sovereignty, security, and economic growth via laws, policies, and norms (ten Oever, 2021, p. 56). 5G device build and network infrastructure centres around national and regional norms and values (p. 57). We must take both multilateral and private regimes together to understand the transnational Internet governance regime complex. Private regimes implement "voluntary norms" and multilateral regimes implement "treaties and laws" that conflict in norms, objectives, and ways of executing (p. 57). One way to understand governing structures like the transnational Internet governance regime complex and politicized narratives and stories like the U.S.-China trade war is to conduct a narratology.

1.5 – Narratology as a Theoretical Framework

In Section 1.5, I trace how narratology can be used as a theoretical framework by distinguishing narratives from stories and defining what discourse and a content analysis consist of. Second, I stress how the Web-scraped data will be collected, coded, categorized, thematized, and narrated. Third, I examine the relationship between how power is qualified and resolved by language found in law. Fourth, I explore how socio-legal narratives can be dominant narratives and counter-narratives with the framing of discourses through discursive strategies, such as the use of analogies. Lastly, I problematize the terms *frame* and *theme* to understand how actions produce effects constructed and represented by ideas, concepts, issues, and arguments categorized under the four socio-legal themes. I also problematize the term *data* to argue that

data is socially constructed, partial, and reflecting the socio-economic and political biases of those collecting and using data-collecting technologies.

Narratology as a theoretical framework is a way to distinguish between practical, real world events and the manner they are showcased in narrative form (Brooks, 2006). The narrative is pieced together into a linear plot that points to questions, implications, and potential conclusions, whereas stories are about the way we speak about events (Brooks, 2003, p. 73; p. 95). Similarly, Baron and Epstein (1997, p. 147) distinguish between narrative and story, where the former refers to the production and reception of stories, whereas the latter refers to communicating events whose plots are intended to bring an issue to realization. I am interested in how stories are constructed, received, and reacted to; reacted to in the sense that agency, or the capacity of enacting power for change, can become operational (Brooks, 2002, p. 3).

My role as researcher will be to analyze Web-scraped discourses, or systems of thought or knowledge claims. Conley et al. (2019, p. 8) define *discourse* as discussions about issues. In one sense, discourse can represent texts, for which I will ask how television interviews, court proceedings, and ECFS (Electronic Comment Filing System) comments are organized and used in communication (p. 8). A content analysis of the data will be about my interpretation of the texts and how actors and institutions understand their intentions and actions and the intentions and actions of others (Seneviratne, 2005, p. 152). This will involve collecting information on how actors receive and construct stories housed on platforms such as YouTube (Brooks, 2006). I will identify and critically assess connections between actors and institutions who attempt to govern data packets and the Web through flows of laws, institutional and public policy, regulatory standards, and knowledge work and expertise (Barney, 2004, p. 136).

The Web-scraped data will be collected, coded, categorized, thematized, and narrated, which will be carefully detailed in Chapter 2. The thematic findings organized by economics, technology, politics, and law and regulation will be explored through a narrative framework comprised of multiple narrative and story threads to help make sense of the debates. I will attempt to partition the data by net neutrality advocates and opponents, and further clarify the actor or institution communicating or being referred to. It is crucial to understand who is communicating, who is being communicated to, and the reactions by actors and institutions to what adversaries and colleagues point to in their ideas, concepts, issues, and arguments. Furthermore, what is held to a high standard in this narrative-creation process is to illustrate *how* actors and institutions explain ideas, concepts, issues, and arguments and *how* they link their discussion points to broader thematic narratives.

So, why focus on narratives and stories entrenched in law and regulation's governance over technology? Language is used to make sense of legal and regulatory decisions through democratic consensus-building to govern the public. As Hutton (2009, p. 48) argues,

if law is a part of the social contract ..., and language is the medium for the recording of law ..., then the terms of that contract, and language in general, become the primary medium through which social order is created and maintained.

According to Farber and Sherry (1996, p. 43), narratives and stories can have great influence over how laws and norms are understood and interacted with, where the emotional parts of language can be convincing and compelling. Narratives and stories “can provide the force that moves us to do as reason commands” (Kronman, 1996, p. 56). When comprehending narratives and stories, humans have an ability to empathize and think outside preconceived

categories to connect meaning and gain an alternative or widened perspective on contested issues (see Dalton, 1996). Language is often linked to the concept of power.

One of the major contributions in Conley et al.'s (2019) seminal work is how power is qualified and resolved by language found in law. The power of law can be exercised and emulated or questioned and undermined, or both simultaneously, through language (p. 190). Deceitful or manipulative language can sometimes triumph or overrule evidence, facts, or inherent truth found in arguments and ideas (Farber & Sherry, 1996, p. 43). Thus, while part of the analysis may shed light on the motives, legitimacy, and veracity of alleged bots, for example, the analysis will be more concerned with understanding how texts provide support for rooting decisions in law and regulation.

There will be different narratives at stake in the net neutrality debates in the economics, technology, politics, and law and regulation themes. A narrative points out the significance of the arguments to the audience (Shiller, 2019, p. 36) and can help establish a perspective that can shape how decisions can be thought of and rendered into practice (p. 66). To position arguments as a dominant narrative that gets repeated across different mediums or attracts attention from a wide number of online users will be important to include. Equally important are counter narratives that help to frame conversations that do not necessarily have to be direct but rather taken for the content as a point of opposition (see Fetner, 2019). There may not be a direct response from net neutrality opponents within the same video recorded interview of an argument put forth by net neutrality advocates. However, the socio-legal narrative can still be constructed by including net neutrality opponents' arguments found in a mainstream media news article that addresses what net neutrality advocates originally argued at a different time under a different context.

Cover (1983, p. 5) eloquently describes the narratives of law as “trajectories plotted upon material reality by our imaginations.” Law and regulation can then represent a connection of (dis)agreements to an argument “of reality to an imagined alternative” (p. 9). Discourses that will be represented in the findings and analysis chapters (i.e., Chapters 3–6 and Chapter 7) will often be associated with authority through discursive strategies like analogies, historical rhetoric, and the symbolism and images of rights (see Shaw, 2013, p. 122). Discursive strategies are used by actors and institutions to help convince the audience of their arguments and that their suggestions should be followed. Discursive strategies can be used to simplify complicated arguments by walking the audience through step-by-step explanations. The focal point for all broader thematic narratives will always relate to formal laws and regulations and the discursive strategies actors and institutions use. Thus, I will identify and describe how net neutrality advocates and opponents frame discourses through discursive strategies.

Frame bridging allows the author to connect similar ideological arguments (e.g., promoting equality as it relates to closing the digital divide) between different frames (e.g., equality for both racialized and low-income neighbourhoods) (see McCammon et al., 2018, p. 61). The concept of framing can be attributed to Goffman (1974, p. 21), who argued that framing is a series of interpretations and understandings that can help actors “locate, perceive, identify, and label” events and arguments. With framing, there is an emphasis on explaining why actors perform the way they do. Agency, or the ability to enact change through action, is a key trait of framing something a particular way. Some frameworks are more salient than other frameworks. Benford and Snow (2000, p. 623) argue that frame amplification is a highlighting of particular “issues, events, or beliefs” that come to act as a “synecdoche” where parts of frames come to represent the whole frame. In addition, Snow et al. (1986, p. 477) note that frame amplification

can become weakened when one side fails to defend issues, events, or beliefs. Or if an issue, event, or belief “loses its saliency” or “is popularly refuted,” frames that are tied to that frame may become weakened (p. 477).

Yet, throughout Chapters 3–6, I sometimes use a different terminology than *frame* to describe what framing does. I sometimes use the term *theme* to describe the narrative themes that emerge across the net neutrality debates and that connect to the socio-legal themes (i.e., economics, technology, politics, and law and regulation). My focus does not revolve around understanding why actors perform the way that they do. Rather, my focus revolves around how actions produce effects, where these effects are constructed and represented by ideas, concepts, issues, and arguments categorized under the four socio-legal themes. A theme is the result of the data collection, coding, and categorization and assessment by the researcher on patterns in the data (Goodrick & Rogers, 2015, p. 564). Themes are the highest level of abstraction.

Narratives found in the themes of economics, technology, and law and regulation present data as given, whereas the theme of politics presents the social nature of data. Conscious human choice is often an element that is left out of the understanding of how data becomes observable and interpreted. Data is not a pre-existing ancient artefact, like a fully realized sculpture that can be uncovered or rediscovered at a highly controlled archaeological dig site. Data is a sculpture that begins as a slab of marble that is chiselled, etched, polished, and interpreted for the subjective work of art it is. Rigorous methods used to collect data and technologies used to render results are certainly needed, but the sociality of data must not be undermined. Data is generated under the pretense of social values and desires and relations (Kitchin, 2021, p. 5). Data is socially constructed, partial, and reflecting the socio-economic and political biases of those collecting and using data-collecting technologies.

The media, especially popular commentators, can bring attention and life to ideas which can often generate different meanings and understandings to a debate. What this dissertation does not do is trace how a theme and its socio-legal narratives and the arguments by net neutrality advocates and opponents that reside therein becomes morphed in court proceedings versus mainstream media. Instead, this dissertation focuses on the construction and representation of the ideas, concepts, issues, and arguments regardless of what medium it was produced in. Tracing consistencies or inconsistencies in arguments between law documents and mainstream media news articles is not the intent (cf. Stein, 2010). By contrast, questions should be formulated around how actors and institutions thematize narratives. We will now turn to the dissertation's research questions and contribution to the advancement of knowledge as we keep the narratology theoretical framework in mind.

1.6 – Research Questions & Contribution to the Advancement of Knowledge

Section 1.6 briefly summarizes the dissertation's context and methodology before revisiting the three research aims and three research questions. I preview (i) how net neutrality advocates and opponents relied on discursive strategies; (ii) the nature and effectiveness of formal law and regulation versus non-normative frameworks; and (iii) how net neutrality advocates and opponents argued how U.S. norms, values, and rights metastasize U.S. economic power. Moreover, I reiterate the contribution the dissertation makes to the scholarship on socio-legal narratives, law and regulation, and net neutrality in the U.S. I underscore that what is at stake is the access to, consumption of, and sharing of ideas over the Web.

Net neutrality advocates and opponents defend and protect access to, consumption of, and sharing of ideas over the Web. I will examine the 2017–2020 period since the proposal to repeal net neutrality was considered an abrupt shift in policy from efforts by previous FCCs to sustain

net neutrality principles. I will conduct a qualitative content analysis by collecting, coding, categorizing, and thematizing five data sources in NVivo (qualitative data analysis software) to draw out socio-legal narratives and stories. The five data sources include the 2017 Order itself, the FCC's Electronic Comment Filing System (ECFS) attachment files, videos from YouTube, media reports, and law documents. A qualitative content analysis of the data will consist of my interpretation of the texts and how actors and institutions understand their own and others' intentions and actions.

In this dissertation, I will address three research aims. First, I will identify and describe the contested concept of net neutrality in light of socio-legal narratives and stories. I will focus on the construction and representation of ideas, concepts, issues, and arguments related to the governance of data packets and the Web. A narratology will bring focus to the production and reception of stories and communicating events whose plots are intended to bring arguments for and against net neutrality to realization. Within each of the four net neutrality themes of economics, technology, politics, and law and regulation, I will identify and describe how net neutrality advocates and opponents frame discourses through discursive strategies. Discursive strategies, such as connections made to U.S. social norms, values, and rights, or comparative similarities and differences made through metaphors and analogies, are used to convince the audience to believe in discourses. Second, I will focus on examining how formal law and regulation frameworks (i.e., empirical and normative – 'according to law and regulation as they are and ought to be') and non-normative frameworks (i.e., technological management and solutions – 'according to what law and regulation can and cannot do') govern data packets and the Web. Brownsword's (2012, 2016, 2019, 2020) Law 1.0 (coherentists), Law 2.0 (regulatory-instrumentalists), and Law 3.0 (technocrats) frameworks will help understand whether and to

what extent formal law and regulation frameworks or non-normative frameworks are more dominant over the other or if both can be combined. The formal law and regulation framework, which encompasses Law 1.0 and Law 2.0, signals what acts are “prohibited, permitted, or required” by empirical and normative judgements (Brownsword, 2016, p. 102). The non-normative framework, which includes Law 3.0, indicates what acts are possible and impossible and what can and cannot be done through technological management and solutions. Third, as a way to merge the first two research aims together, I will explore how formal law and regulation frameworks and non-normative frameworks, or Internet governance more broadly, reflect the discursive strategies of U.S. norms, values, and rights to support U.S. economic power.

Based on the above three research aims, the dissertation’s three research questions can be expressed in the following ways that address the 2017–2020 net neutrality debates:

1. How do net neutrality advocates and opponents frame their discursive strategies?
2. In what ways do formal law and regulation frameworks (empirical and normative – ‘according to law and regulation as they are and ought to be’) govern data packets and the Web? In what ways do non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web?
3. How does Internet governance reflect U.S. norms, values, and rights in ways that support the expansion of U.S. economic power?

I will answer the above three main research questions by the end of this dissertation. In the first instance, I will conclude that net neutrality advocates and opponents relied on discursive strategies to:

- Prove what is true and historic fact.
- Expose logical leaps and incite negative emotions.
- Detest political influence and control.
- Promote economic freedoms.
- Disclose how the FCC is a useless or essential regulator.
- Establish criteria for people to upgrade technologies to harness digital skills and human development.

In the second instance, I will conclude that the nature and effectiveness of formal law and regulation versus non-normative frameworks identified the:

- Interpretation of laws and regulations and contesting of state versus federal jurisdictions through exceptions, U.S. Codes, and acts.
- Offering of a space for industry experts to debate and counsel the FCC and politicians on whether and to what extent Title II should be repealed.
- Proposing of a centrist solution where ISPs offer and charge for enhanced or tiered services and regulators provide regulatory and legal checks. The FCC and the FTC could unite to pre-empt and react to harmful ISP practices.
- Failure of laws and regulations to adapt and align with data packet management logistics.
- Slow alignment of laws and regulations and forgetful embrace of humanistic protections by technological management and solutions. Law works best as a blanketed legacy of standards. Regulation works best at addressing societal concerns to alter behaviours and mitigate harms. Technological management and solutions work best at becoming more adaptive, efficient, secure, convenient, recyclable, affordable, and faster across time for humans.
- Law and regulation should direct and adapt to technological management and solutions, where regulation can combine local to supranational public governance with actor and institution non-state private governance.

In the third instance, I will conclude that net neutrality advocates and opponents argued how U.S. norms, values, and rights metastasize U.S. economic power through:

- Gatekeeping access and interaction with content and applications and exclusion of consumers and competitors.
- Monopolistic control.
- ISP-projected and reported infrastructure and financial investment numbers.

The dissertation contributes to the scholarship on socio-legal narratives, law and regulation, and net neutrality in the U.S. Since 2003, the net neutrality literature has focused on debates between proprietary infrastructure versus content commodification; surveillance capabilities; price discrimination versus price differentiation; two-sided market theory; and market innovation. The dominant approaches centred on debates between the economic and technological themes to net neutrality without detailed attention paid to the socio-legal narratives of the debates that also included politics and law and regulation. To the best of my knowledge, to

date, no other academic works have surveyed the mass amounts of data sources proposed to be Web-scraped within this 2017–2020 period. This dissertation makes a substantive research contribution to this field, which can be used for future research and policy analyses. From data collection to data narration, social science scholars might appreciate more how online content on a mass scale can be harnessed as data. Web scraping enables the creation of extensive datasets, allowing researchers to examine vast amounts of information.

In the ongoing efforts of net neutrality advocates and opponents to regulate data packets and the Web through debates, my dissertation will illuminate the narratives and stories embedded in this history of net neutrality. Fear and anxiety about dire outcomes will form the foundation of most debates. It is only through expository narrative analysis that we can observe this. A narrative analysis will allow us to observe how net neutrality advocates and opponents relied on discursive strategies, the contention between the formal law and regulation versus non-normative frameworks, and how U.S. norms, values, and rights expand U.S. economic power. Additionally, policy recommendations will address the digital divide and a proposal to assign the FCC to coordinate a session for expert witness testimony and extended debate. Scholarly conceptual contributions will explore the potential resolution of parts of the net neutrality debate through a centrist solution that incorporates both pre-emptive and reactive measures. Lastly, I argue that in the emergence of a narrowed world created by technological management and solutions, the ongoing relevance of law and regulation persists. There is alignment between state and non-state actors and institutions to uphold U.S. economic power.

Why care about how oil is produced and transported through shipping channels, so long as consumers get a fair and relatively cheap price that is widely accessible? People care about the end product and what the product means for their bottom line each time they fill their vehicles

with gas. Most do not appreciate the complexities of the production that goes into locating and extracting oil reserves, shipping and distribution costs, jurisdiction, taxes, points of sale, wars, and environmental safeguards, to name a few implications. This dissertation's aim is to detail the complexity of transmitting and receiving data packets as it is understood through the perspectives of net neutrality advocates and opponents. Why care about how data is transmitted through the six layers of the Internet, so long as consumers get a fair and relatively cheap price that is widely accessible where consumers have several choices in BIAS (broadband Internet access service)? Why care about the internal workings of governing data packets and the Web? The access to, consumption of, and sharing of ideas over the Web is what is at stake. My dissertation is another episode in the U.S. transnational Internet governance regime complex. As net neutrality advocates and opponents vie for control over how to govern data packets and the Web in attempts to move the needle in the net neutrality saga, I will recount and analyze the narratives and stories that have transpired over the three-year period. These intentions will be my contribution to the advancement of knowledge.

One important question that Silbey (2013, p. 24) draws attention to is about law and regulation's resiliency to continue attempts to govern orderliness: "if law failed to meet its public aspirations, how did it retain support among the people, how did it achieve the general sense of consistency, accessibility, fairness, legitimacy?" The title of this chapter is "Jailbreaking the FCC: Removing Restricted Modes of Operation." *Jailbreaking* can have multiple meanings. The way in which I reference the term refers to wordplay for attempting to remove restricted modes of operation that the FCC assumes it has over the BIAS industry. The FCC's 'OS' (operating system) can be altered, and new 'software,' 'extensions,' and 'applications' not approved by the FCC can be 'installed.' It frees actors and institutions to customize their networks and equipment

(or devices, like an iPhone) to open and work on the FCC's 'OS' (or Apple's OS) to fit their intentions and actions.

1.7 – Plan for the Dissertation

This last section of Chapter 1 will briefly outline a plan of action for how the dissertation will look and give a preview of each chapter's substantive topics. In the methodology chapter (Chapter 2), I document the step-by-step techniques and operations for accessing, retrieving, and rendering texts for analysis, showing how all results were produced and enabling researchers to take on similar research using these methods as a template. Five datasets offer access-points into socio-legal ideas, concepts, issues, and arguments made by experts and influencers in texts. The 2017 Order, the FCC's ECFS (Electronic Comment Filing System) attachment files, videos from YouTube, media news reports, and law documents were the five datasets chosen and created to be collected, coded, categorized, thematized, and narrated. I will detail the components of a content analysis and draw on strategies to render meaning and interpretations from texts. Using online content from the Web as an object and field of study will help explain the Web-scraping techniques used to access and retrieve the textual data. Furthermore, I will explore the research procedures for data collection and organization strategies by describing the NVivo datasets, data coding, data categorization with word frequency and matrix categorization query results, intra-coder reliability and results, thematization of data, and narration of data. I end this chapter by outlining the drawbacks and critiques of the methodology and research procedures employed.

In the economics theme chapter (Chapter 3), I will examine defending the role of the Web in the Internet market economy, infrastructure investments, paid prioritization, and antitrust and consumer protection laws. The economics theme reflects common ground between net neutrality advocates and opponents by citing evidence of defending the role of the Internet in the

market economy at all costs; most arguments are rooted in what is best for the economy. Tensions rise when net neutrality advocates and opponents present conflicting broadband infrastructure investment numbers. Paid prioritization (i.e., the partitioning of data traffic to evade traffic congestion, usually in exchange for higher monetary payments by users, to optimize content, applications, platforms, services, and/or devices) is then questioned with regards to advantages and disadvantages concerning investments, data congestion, and innovation. The economics theme ends by assessing whether and how antitrust and consumer protection laws could address harms to competitors and/or users in the form of blocking, throttling, and paid prioritization of data.

In the technology theme chapter (Chapter 4), I will examine state jurisdiction and interconnectivity, problematizing data packets and walled gardens, and the future of 5G and its reliance on paid prioritization. The technology theme assesses the unreliability of law to protect consumers and businesses prompted by state and local jurisdictions who respond to federal net neutrality regulations with statewide broadband access bills. Problematicizing the partitioning of data transmission with jurisdiction raises a related issue of problematizing data packet (deep packet inspection) and content (walled gardens) differentiation and discrimination. Alas, net neutrality advocates arrive at a crossroads in the future of 5G: the built-in-by-design network slicing and prioritization features are antithetical to net neutrality principles.

In the politics theme chapter (Chapter 5), I will examine the Verizon-Mendocino Complex Fire tragedy, political debating between Democratic and Republican Party members and social justice talking points, the 2017 Order hearing and CALinnovates' (a San Francisco, California coalition of technology leaders, start-ups, ISPs, entrepreneurs, and venture capitalists) influence on shaping the order, two negative reactions and two positive defences to repealing net

neutrality, and the FCC's ECFS fraudulent comments debacle. The politics theme explores how Verizon's data throttling practice during the Mendocino Complex Fire tragedy triggered criticisms about acting out of economic interest instead of public safety. The political debating between Democratic and Republican Party members shows some common ground on crafting Congressional legislation, but primarily exudes division on social justice issues, conflicts of interest, and regulatory tools to reinstate 2015 Order-style net neutrality protections. The 2017 Order hearing is another space that shows the divisiveness on net neutrality principles between the four (two Democratic and two Republican) FCC Commissioners and (one Republican) FCC Chairman, and how much of an impact CALinnovates has on shaping telecommunications policy and its questionable link to industry. Next, across 2017–2020, two negative reactions and two positive defences to repealing net neutrality reveals how actors and ISPs were impacted. The politics theme ends by describing the FCC's ECFS fraudulent comments debacle, starting with John Oliver's call to comment on the site. I will detail allegations of fraudulent comments from users with Russian IP (Internet Protocol) and email addresses and from bots. Here, some commenters were fabricated and some actors had their identities stolen. Basic questioning of ECFS procedures, purposes, and impacts will be outlined, along with Freedom of Information Act (FOIA) requests that challenge the FCC's withholding of records.

In the law and regulation theme chapter (Chapter 6), I will examine FOIA legal challenges, Title I and II classifications, the FTC as a regulatory authority, and interstate versus intrastate jurisdiction. The law and regulation theme investigates a third FOIA legal challenge, *Collier v. FCC* (2017), to question the inner-workings of the FCC's ECFS. Common carriage versus public utility and Title I and II classifications discussions help discern how and to what extent federal commissions can or cannot apply authority. Assessing the significance of antitrust

law (and its seeming irrelevance to today's corporate mergers and monopolies) and questioning the effectiveness of the FTC's regulatory framework exposes the weaknesses of legal and regulatory authority over ISPs, data packets, and the Web. In the end, definitional and classificatory debates about interstate versus intrastate jurisdictional laws and regulations points to the *legal* and *regulatory limbo* net neutrality is still in.

Chapter 7 is a three-part analysis organized into five sections that explores (i) how net neutrality advocates and opponents frame discursive strategies, (ii) in what ways formal law and regulation frameworks and non-normative frameworks govern data packets and the Web, and (iii) how Internet governance reflects U.S. norms, values, and rights in support of expanding U.S. economic power. First, I will examine how net neutrality advocates and opponents mischaracterize history, use analogies and popular cultural references to convince their audiences in arguments, and clash with rights-based language. Second, I will explore how net neutrality advocates and opponents evaluate antitrust laws, understand the relationship between data packets and jurisdiction, and make sense of the FCC's ECFS process. Third, I will assess how net neutrality advocates and opponents debate over whether the FCC or the FTC are the more effective governors of data packets and the Web and whether regulation is necessary for the functioning of data packets and the Web. Fourth, I will evaluate how net neutrality advocates and opponents contest how data packets control networks, how data packets and jurisdiction (mis)align, how Titles I and II define what is possible in governing data packets and the Web, and how terms of service agreements attempt to secure law and regulatory coverage. Fifth, I will consider how net neutrality advocates and opponents question the degree to which state governments should intervene in the corporate pursuit of profits and how walled gardens govern data packets and the Web.

Chapter 8 draws conclusions inside the net neutrality saga by presenting my contributions theoretically and empirically and highlighting socio-legal implications of the U.S. net neutrality debates across the economics, technology, politics, and law and regulation themes. I begin by considering what the net neutrality debates told us about governing data packets and the Web. I then discuss how net neutrality advocates and opponents relied on discursive strategies, the nature and effectiveness of formal law and regulation versus non-normative frameworks, and how U.S. norms, values, and rights metastasize U.S. economic power. I offer an afterword to bring some closure to strings of narratives, actors, and institutions presented in the dissertation by giving a brief update beyond March 13, 2020.

Chapter 2 – From Data Collection to Data Narration: A Qualitative Content Analysis

Approach

2.1 – Chapter Overview

Chapter 2 documents the step-by-step techniques and operations for accessing, retrieving, and rendering texts for analysis, showing how all results were produced and enabling other researchers to take on similar research using these methods as a template. Five datasets offer access-points into socio-legal ideas, concepts, issues, and arguments made by experts and influencers in texts. The 2017 Order, the FCC's ECFS (Electronic Comment Filing System) attachment files, videos from YouTube, media news reports, and law documents were the five datasets chosen and created to be collected, coded, categorized, thematized, and narrated. The purpose of choosing an eclectic range of mediums was to offer social and legal visages to the net neutrality debates. The social visage can be a constellation of conditions, like inequality and exclusion, for making connections to how knowledge informs the way law and regulation impacts the net neutrality debates.

Readers are encouraged to better understand some of the nuances in Chapter 2 about how methodological procedures were completed and their results by reading the appendices.

Appendix A details ethical considerations. In Appendix B, the procedures for signing up for an API (Application Programming Interface) key on data.gov and fetching and extracting the FCC's ECFS-submitted comments are outlined. Procedures for fetching and extracting all YouTube videos are described in Appendix B, along with listing all YouTube video URLs (Uniform Resource Locator) in descending order by date in Appendix C. Appendix B also describes procedures for fetching and extracting mainstream media news articles through three databases and law documents through six databases. Appendix D details the organic, data-driven socio-

legal codebook with the steps taken to perform an NVivo word frequency query. Procedures for generating the categorizations of the advocate, opponent, and actor/institution classes and their clusters are explored. Procedures for generating a project map, the textual results in each class and cluster, the word frequency queries for the various class and cluster categorizations and by dataset, a word cloud, and matrix categorization queries are described. Moreover, calculations for the Kappa Coefficient, the re-categorization of the sample data, and the results for percentage agreements and disagreements and Kappa Coefficients are also defined in Appendix D.

Appendix E showcases the numbers of cluster references and numbers of datasets referenced for two-cluster comparisons, while Appendix F showcases the numbers of dataset references for the two-cluster comparisons. Lastly, Appendix G illustrates the percentage agreements and disagreements and Kappa Coefficients across the five datasets. Appendices A–G are integral for readers to appreciate the nuances in the methodologies discussed below.

In this chapter, the trail of publicly-accessible texts and the employment of a content analysis will be documented. Section 2.2 will begin by detailing the components of a content analysis and draw on strategies to render meaning and interpretations from texts. Using online content from the Web as an object and field of study will help explain the Web-scraping techniques used to access and retrieve the textual data. Section 2.3 explores the research procedures for data collection and organization strategies by describing the datasets, data coding, data categorization with word frequency and matrix categorization query results, intra-coder reliability, thematization of data, and narration of data. Section 2.4 then acknowledges the drawbacks and critiques of the methodology and research procedures described throughout.

2.2 – Utilizing Qualitative Methods via the Web

Section 2.2 describes the use of qualitative methodology via the Web. I will define key concepts and discuss how to properly engage with texts to access meaning and interpretation and also consider the online content on the Web as an object and a field of study, especially around Web-scraping techniques to access and retrieve data.

2.2.1 – A Content Analysis

In section 2.2.1, I begin by defining *discourse*, *texts*, and *validity* in relation to the roles of audiences and communicators. In reference to Seneviratne (2005, p. 152), I argue that a content analysis will be my interpretation of the texts and the exploration of how experts and influencers understand their own intentions and actions and the intentions and actions of others. Moreover, I underscore how the context, the subtext, the underlying meaning, and the background, roles, responsibilities, and motives behind some of the key actors and institutions and their arguments will be critically assessed. Lastly, I discuss the components that make up a *qualitative content analysis* to document how actors and institutions' arguments and concepts are formulated, explained, and used to convince others of their positions and substantiate formal law and regulation mandates to govern data packets and the Web.

Part of my role as researcher is to analyze Web-scraped discourses. Conley et al. (2019, p. 8) define *discourse* as the range of discussion about issues, sometimes referred to as *macrodiscourse*. Wodak and Meyer (2009, pp. 2–3) relate discourse to things with centralized themes and topics, like a historical monument or a political strategy. Discourse embodies a thing that connects back to the root of language for shared understanding. By *thing*, I am referring to a matter of concern, an affair, an event, a circumstance, or a given context. Whether the thing being represented is contested or accepted is another matter considered below. Discourse is a

form of communication that transmits language for understanding a thing inside the minds of an actor or group of actors.

In one sense, discourse can represent texts. I define *texts* as an expression of written or spoken words, illustrated pictures or moving pictures, and/or displayed numerical graphics to an audience by communicators. The audience can be an actively engaged receptor and reciprocator of texts. The audience can give a written, spoken, and/or physical response to the information presented. The audience can also be a passively engaged receptor of texts. The audience can internally wrestle with thoughts and emotions instead of communicating outward responses. The audience can be an actor or a group of actors. The audience can be readers, listeners, viewers, judges, a jury of the people. Moreover, the communicator can be one actor, or an actor who represents a larger group, or a group of actors. The communicator formulates and introduces ideas, concepts, issues, and arguments and explains them through definitions, statistics, anecdotes, or other evidentiary tactics by referencing information. The communicator then uses the ideas, concepts, issues, and arguments and their evidentiary tactics to advance or defend a set of principles they believe are important. In the context of this dissertation, the communicator usually tries to (a) convince their adversaries or indifferent spectators that their perspective is *correct* and/or (b) justify and rationalize through evidence why and how a set of governing tactics will be used to achieve some regulation or law. The communicator vessel can come in the form of author, lecturer, interviewer and interviewee, politician, video or podcast content creator, lawyer, journalist, popular television show host, state representative, concerned citizen. The communicator may reference, or be represented themselves in, various types of text formats.

I will ask how interview conversations, graphs, spreadsheets, video tutorials, formal law documents, policies, among other texts, are organized and used in communication (Conley et al.,

2019, p. 8). These types of texts should not be regarded as storage units of information to help separate words, pictures, and numerical graphics. How texts can influence the ways in which tactics, strategies, procedures promote ideas, concepts, issues, and arguments is key in a content analysis. A content analysis of the text data will be my own interpretation of the texts and the exploration of how experts and influencers understand their own intentions and actions and the intentions and actions of others (Seneviratne, 2005, p. 152).

People interpret texts. To take the static sentence, the dormant video clip, the fixed set of numbers and render these significant, re-readable, re-playable, re-calculable will be up to me, the researcher. What might the communicator mean by what they are saying and how they are saying it? How does the audience receive and transmit a response back to what has been argued? What lines of arguments by adversaries are dealt with head-on or are flatly ignored? What makes their arguments and the ways in which they understand arguments valid? *Validity* as it relates to accepting or discrediting data as it relates to understanding *reality* will be discussed in section 2.4. For now, *validity* refers to measurements, results, or theories substantiated by evidence actors and institutions use to make informed decisions (Krippendorff, 2009, p. 356). These types of questions will attempt to draw out the net neutrality debates beyond a simple reading of the text as a piece of text. As Krippendorff (2013, p. 22) mentions, readers and observers must be present for textual data to enter public consciousness. Texts are “produce[d], read[], and interpret[ed]” and can eventually “construct[], maintain[], or undo[] social realities” (p. 332).

The context, the subtext, the underlying meaning, and the background, roles, responsibilities, and motives behind some of the key actors and institutions and their arguments will be critically assessed. My methodology does not fully adopt a textual analysis centred upon grammar, syntax, inflection identification, among other requirements, for assessing linguistics.

That being said, I still recognize the use of analogies to compare and explain a complex concept, argumentative tactics (e.g., belittling or berating adversary political party members and their ideologies), assumptions not rooted in facts, and purposeful omission of facts (see Fürsich, 2009, p. 241). The primary focus for the methodology is still centred upon assessing the reliability and validity of textual inferences to the contexts of its use under the scope of a content analysis (Krippendorff, 2013, p. 24).

Hsieh and Shannon (2005, p. 1278) define *qualitative content analysis* as the “subjective interpretation of the content of text data through ... coding and identifying themes and patterns.” A content analysis involves collecting information and making sense of how experts and influencers receive and construct stories given the available facts at the time (Brooks, 2006). The presentation of evidence by actors and institutions, and how other actors and institutions receive that evidence, will be key to understanding the net neutrality debates. A content analysis will capture contested points held by actors and institutions who advocate for or oppose net neutrality within the context of economic, technology, political, and law and regulation-based disputes and outcomes. I am interested in exploring how text-based documents can potentially shape how actors and institutions interact and organize thoughts about how governance of data packets and the Web are debated. Moreover, I am interested in how economic, technology, political, and law and regulation narratives provide insight for how users, content and application developers, network managers, and ISPs (Internet Service Providers) interact with flows of Web data transmissions (Prior, 2008, p. 822).

Furthermore, I will question how truth proclamations become produced (Jørgensen & Phillips, 2002, p. 14). This is not to say that I will be searching for precise answers to questions to arrive at some objective truth; rather, I wish to document how actors and institutions’

arguments and concepts are formulated, explained, and used to convince others of their positions and substantiate formal law and regulation mandates to govern data packets and the Web. Texts and language help to arrange how social realities are perceived. In turn, meanings are attributed and attached to language to personify social realities (pp. 8–9; Ifversen, 2003, p. 68). To be clear, the datasets do not reflect objective truths. Researchers define and infer meaning from widely-accessible texts. The datasets are not defined by the set of files it hosts—conversations, graphs, spreadsheets, videos, law documents, policies, news articles, bills—but by trying to make sense of the entropy associated with conflicting evidence, hostile reactions, landmark cases that set precedence, numbers of eyeballs and ears fixated on a 20-minute video. The datasets were created, added to, and edited through Web-based applications, sites, and platforms. The online content on the Web as an object and method of study helps frame some semblance of negentropy. Some semblance of order is contrived through Web-scraping to fetch and extract preformatted data.

2.2.2 – Online Content as an Object & Method of Study

In section 2.2.2, I identify the Web-scraping techniques (i.e., *fetching* and *extracting*) used to conduct a gathering of online source materials. I explain how I Web-scraped the five sources: (i) the complete 2017 Order; (ii) the FCC’s filed comments, including attachments, to its Electronic Comment Filing System (ECFS); (iii) videos, but not attached comments, from YouTube; (iv) news articles from U.S. major media outlets; and (v) U.S.-based law documents. Lastly, I outline the numbers of files searched, downloaded, reformatted, and saved, and numbers of hours it took to complete these tasks, along with showing the sharp increase in Web application, platform, and program dependence due to COVID-19. I argue how important online content is to the social sciences as an object and method of study.

Marres (2017, p. 30) argues that Web-based platforms can be a topic or theme and a reservoir of social exchanges and debates. Web-based applications, website access points, and university proxy-accessed databases allowed me to scrape online data. To harvest mass volumes of data to be ordered and readable could have only been done with relative ease with such an invention as the Web. Schneider and Foot (2003, p. 158) call resources that extend across websites that are rendered useful to research themes a *Web sphere analysis*, and that data collection boundaries lie in setting parameters like time or numbers of sources. The Web is a knowledge economy that is largely publicly accessible, manageable, and consumable to the average everyday user (Lupton, 2015, p. 189). Web-scraping helps to gather and partition data from the Web knowledge economy.

Web-scraping is the technique used to conduct a gathering of online source materials. Web-scraping is the programmed collection of data, and scrapers are bits of code that downloads Web data (Marres & Weltevrede, 2013, p. 313). Web-scraping was performed manually to empirically identify and collate data on websites through a Web browser. In other instances, Web-scraping was performed with JSON (JavaScript Object Notation), a data interchange format that transmits and stores a collection of name and value pairs and ordered lists of values (JSON, n.d.). JSON communicates to the Web server to parse a collection of data values, search through an entire dataset to find content the researcher is after, and/or reformat the data into a format preferred to analyze and visualize. Furthermore, *fetching* and *extracting* are the two primary functions of Web-scraping. Fetching is the downloading of a Webpage and extracting is the search for specific content to be placed (pasted) into a centralized database. Fetching is based on user-set parameters, like date and time, keywords, subject matter, type, authors. A detailed, step-by-step procedure of these functions will be described in section 2.3.1.

The online source material Web-scraped includes (1) the complete 2017 Order; (2) the FCC’s filed comments, including attachments, to its ECFS; (3) videos, but not attached comments, from YouTube; (4) news articles from U.S. major media outlets; and (5) U.S.-based law documents. First, the 2017 *Restoring Internet Freedom* Order was downloaded from the FCC’s website (<https://www.fcc.gov/document/fcc-releases-restoring-internet-freedom-order>). The total number of pages, minus the appendix of Commissioner Clyburn’s dissenting statement, was 231. Second, the total number of filed comments, including attachments, to the FCC’s ECFS scraped was 23,956,307. 10,068 attachment files were scraped to be analyzed in the first round of data collection. In the second round of manually combing through each attachment file, 954 were kept, which was further consolidated to 936 after discarding duplicate attachment files or files that were not submitted by verified *experts* and *influencers*. The criteria for what constitutes an expert and influencer is explained in section 2.3. Third, the total number of YouTube videos initially saved was 460, which was consolidated to 244, and was further consolidated to 54 after discarding duplicate videos, videos that were uninformative towards understanding any real basis for claims made for or against net neutrality, or videos that were not presented by experts and influencers. Fourth, the total number of mainstream media news articles collected was 60,216. 21,642 were collected from Factiva’s database, 2,761 from PressReader’s database, and 35,813 from Nexis Uni’s database. The final total number is unknown since I sampled a collection of the articles from that 60,216 total, with sometimes 90–100 articles being captured in one single file. This sampling method technique is explained in section 2.3.1, along with how and why it did not matter that duplicate stories were included in the qualitative content analysis. Fifth, the total number of original files saved and final number of files saved after consolidation of the various types of law documents are depicted in Table 1.

Table 1

Number of Law Documents Saved from Six Online Databases

Type of Law Documents	Original Number of Files Saved	Final Number of Files Saved
U.S. Congressional Documents	27	6
U.S. Cases	10	2
U.S. Statutes and Legislation	468	318
U.S. Administrative Materials	126	73
U.S. Briefs, Pleadings, and Motions	410	112
U.S. Administrative Codes and Regulations	59	16
Cases; U.S. Federal	6	4
Cases; States & Territories Cases & Codes	2	0
Congressional Publications	8	1
Case Law	22	0
Collections: GPO OR BUDGET OR CZIC OR CFR OR CPD OR BILLS OR CCAL OR CPRT OR CDIR OR CDOC OR CHRGE OR CREC OR CRECB OR CRI OR CRPT OR ECONI OR ERP OR ERIC OR FR OR GAOREPORTS OR HOB OR HMAN OR HJOURNAL OR LSA OR GOVPUB OR PAI OR PPP OR PLAW OR SMAN OR COMPS OR STATUTE OR USCODE OR USCOURTS OR GOVMAN	489	125

Before consolidating all files in each database, the total time it took to Web-scrape each dataset was: 3-seconds to scrape the 2017 Order; 53-hours to scrape the FCC's ECFS comments and 160-hours to search, download, and save the attachment files; 12-hours to scrape all YouTube videos and some printed transcripts; 43-hours to scrape all mainstream media news articles; and 11-hours to scrape all law documents within all six law document databases.

The evidence will be derived from documentary research, starting with the implementation date of the 2017 Order on December 14, 2017. The 2017 Order aimed to implement a regulatory approach centred on market dynamics and technology for ISPs, allowing for limitations on Internet openness and the elimination of FCC oversight of the Internet. Before the 2017 Order, the FCC required ISPs to operate neutrally, ensuring that all users on the Web and the Internet were treated fairly and equitably. Earlier FCCs endeavored to uphold principles of net neutrality, while the 2017 Order sought to undermine these initiatives. The proposition to revoke net neutrality principles and delegate complete decision-making authority over Internet access, cost, and usage to private ISPs marked a sudden policy shift.

The rest of the source material evidence spans until March 13, 2020, the day that Republican President Trump declared a national state of emergency due to the COVID-19 pandemic. People worldwide had to acquire and adjust to using the Web and the Internet out of necessity, causing the attention and discussion on net neutrality between 2017 and 2020 to diminish. The selection of March 13, 2020 as the end date was influenced by the recognition of COVID-19 as a global health threat, leading to a notable transition from in-person social and work interactions to exclusively online activities. While there is no inherent relationship between the COVID-19 pandemic and net neutrality, the pandemic led to relying on the Web and Internet infrastructure for essential online interactions in remote work, education, healthcare, entertainment, and communication. For example, remote virtual meetings, virtual classrooms, virtual waiting rooms, e-commerce shopping and streaming services, and social networking occurred more frequently on video calling, social media, and personal messaging applications. I will examine the period from 2017 to 2020, as the proposal to repeal net neutrality was perceived as a sharp policy shift from the endeavors of previous FCCs to uphold net neutrality principles. The period from 2017 to 2020 was the most intensely debated phase in the net neutrality saga across various mediums.

Overall, this research examines the net neutrality debates when the debates happen rather than when the debates are not happening. The debates are captured in publicly-accessible texts that document recorded progress in the form of a rulemaking order, ECFS attachment files from the public, YouTube videos, mainstream media news articles, and law documents. When debates are excised on online platforms or not publicized for online public consumption, these silences are not accounted for. Exclusive insider interviews or submitting Freedom of Information Act requests to gain guarded knowledge to unearth ideas, concepts, issues, and arguments never

uttered outside the public light was not a research aim. A qualitative content analysis that involved collecting, coding, categorizing, and thematizing the data sources in NVivo (qualitative data analysis software) to draw out socio-legal narratives was the research aim.

The purpose of showing a bird's eye view of the dissertation's statistics in numbers of files searched, downloaded, reformatted, and saved, and numbers of hours it took to complete these tasks, along with showing the sharp increase in Web application, platform, and program dependence due to COVID-19, was to stress how integral the online content is to the social sciences, and the work required to benefit from this space, as an object and method of study. Web-scraping as a technique has allowed researchers to generate larger datasets and sift through more information through greater precision with formatting. No research was conducted with human subjects since all materials and texts were publicly accessible (see Appendix A for a brief note on ethical considerations). Section 2.3 will show how the data collection and organization, data coding, data categorization, intra-coder reliability, organization of socio-legal themes, and data narration were completed.

2.3 – Research Design

Section 2.3 and its subsections address data collection and organization strategies, the data coding schematic settled on, the categorization of textual passages in NVivo (<https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home>), usage of intra-coder reliability, thematizing the data, and narrating the data. The research procedures for a content analysis consist of defining all possible units and generating a sample to create a representative subset of all units (Krippendorff, 2013, p. 84; McMillan, 2009, p. 64). A unit is an identifiable text that signifies some sample population that could potentially be coded and categorized (Nuendorf, 2002, p. 71). Next, transforming raw, unedited texts (e.g., transcribing

YouTube videos) into written word through recording, coding, and reducing duplications found in samples allow data to become more easily understood through the practice of inference (Krippendorff, 2013, p. 85). Inference will force me to move beyond the datasets by asking what the texts “mean, refer to, entail, provoke, or cause” (pp. 85–86) when the analysis of themes comes to focus. Lastly, a narration by the author’s voice sheds light on the significance and critical connections to be made that goes beyond the text at face value (p. 86).

Before narrating the data can occur, the steps for any sound qualitative content analysis motions from data collection to coding, to categorization, and to thematizing. In the data collection and organization step, the datasets were created, added to, and edited through Web-based applications (e.g., JSON (JavaScript Object Notation)), sites (e.g., Nexis Uni), and platforms (e.g., Postman), where Web-based applications, websites, and university proxy-accessed databases allowed me to scrape data. Setting parameters to fetch data, like date and time, keywords, subject matter, and type, allowed the data to be directly related to net neutrality. Unitizing the data through parameters created mass results to be eventually sampled, coded, categorized, thematized, and narrated. Web-scraping was performed manually to detect and gather data on websites, usually through a Web browser. In other cases, Web-scraping was performed with JSON to parse data, search through entire sets of data, and reformat the data into human-readable texts or formats from Web servers. Once fetching (downloading) a Webpage occurred, extracting (mining) for specific content got placed and saved into a centralized database.

The second step, coding, attempted to help describe data fragments (Goodrick & Rogers, 2015, p. 564). In this dissertation, a code represents a word or phrase that captures law and regulation in its context or through specific reference. Coding was the transcribing and recording

of data units to be later categorized into classes and clusters, into even higher levels of organization (Krippendorff, 2004, p. 220). Here, root words that related to law and regulation were generated by a word frequency query performed in NVivo, first with the mainstream media news database since it had the most sources and words compared to the 2017 Order, attachment files, videos, and law documents. A total of 423 codes were settled on after omission of codes that did not relate to law and regulation in all of its meanings, synonyms, direct references. All of the “B’s,” for instance, consisted of “billnumber,” “billpassed,” “bloglaw,” and “bylaws” since these words or phrases referred to law and regulation in some fashion. Other more generic terms were also included that could be related to law and regulation, such as “challenging” and “collusive.” Thus, all words or phrases that could be considered relatable to law and regulation were included. Section 2.3.2 outlines the procedures taken to arrive at the data coding schematic.

Step three, categorization, attempted to take the codes that had been generated from the word frequency query to consolidate into higher-level classifications to capture the essence of words or phrases. A cluster of codes made up a category. A cluster of codes related to similar ideas, concepts, issues, and/or arguments in the data (Goodrick & Rogers, 2015, p. 564). The codes could then be further categorized into separate classes, such as *advocates* or *opponents*, and by type, such as *actors/institutions* communicating the ideas, concepts, issues, and arguments. The 57 clusters and three class categories emerged after examining the codes. Section 2.3.3 explains the categorization step in detail.

I will return to steps four and five shortly. At this point, it is worth discussing what criteria helped focus on what experts and influencers had to say about the net neutrality debates. The informed opinions held by actors and institutions were deferred to since they were considered experts or iconic figures (influencers) in their respective fields. Some expert actors

and institutions had been elected to a position that required them to communicate an informed opinion based on evidence brought before them or evidence they collected. Other expert actors and institutions were hired and paid money to conduct research to assess facts and numbers around phenomena. Several influencers were widely cast as popular commentators whose informed opinions, by the sheer number of viewers, readers, and listeners, mattered to a broader audience to help digest complex materials. And a few experts and influencers were licensed representatives of the state, role-players in companies or firms, and some journalists. An investigative reporter who is focussed on the technology development field might be considered an expert, but not necessarily. Even though John Oliver and his team of producers and subject matter researchers fact check and develop evidence for the show, Oliver is considered a popularizer and entertainment content producer.

It was impossible to measure the level of trustworthiness of an expert and influencer. To access and understand information and knowledge, there was usually a community of expert actors and institutions and influencers that pushed the boundaries of what was true and verifiable through structured debates; for instance, in Congressional hearings and roundtable interview forums. The scope of this dissertation was to make sense of the debates presented by expert and influencer defenders and challengers of net neutrality. The power of persuasion from the time spent on thinking, researching, and presenting facts and numbers was more of the focus, not conspiratorial, half-formulated, uninformed opinions from unverifiable actors and institutions. So, who was considered a verifiable expert and influencer?

Expert actors and institutions were considered to have roles as: academics and scholars in the fields of law, economics, politics, and/or technology; elected/appointed officials, such as judges, municipal, state, and federal politicians, including FTC and FCC members; economists

and other paid researchers; lawyers; telecommunications companies, including ISPs (Internet Service Providers); and technology entrepreneurs and firms, including content and applications providers, and small, medium, and large-scale businesses affected by the repeal of Title II. Influencers were considered to have roles as: investigative and news journalists, television show hosts, podcasters, and YouTubers. Thus, the universe of actors and institutions in the net neutrality debates could be divided into experts and influencers. However, placing actors and institutions into one of two camps was not so straightforward. When do influencers become considered experts on subject matter? If a podcaster hosts a forum of debate once a week to provide newsworthy updates on subject matter, they can be considered an influencer since they are providing a summary of topical information. But if that same podcaster began to immerse the listener into evidence-based practices by accessing Congressional records and pointing to academic literature that supported evidentiary claims, could they be considered an expert? Suffice it to say that I was eager to include as many experts and influencers as possible, who both contributed to the net neutrality debates through dominant and counter narratives, including discursive strategies to convince the audience of their arguments.

The criteria for discerning who was an expert required secondary research on my part to confirm or deny their title status, roles, and responsibilities. Some expert actors and institutions held titles that pointed to the obvious that they were indeed who they said they were or were addressed as (e.g., as ‘judge’ or as ‘senator’). For actors and institutions unknown by name and/or role to me, I searched them on Google Search, LinkedIn, YouTube, Wikipedia, and corporate webpages to learn about their credentials and their backgrounds on knowledge surrounding informed opinions on net neutrality. If their title status, roles, and responsibilities in a respective field or in an accredited company or firm could be confirmed, they were considered

an expert. A second criterion that confirmed someone was an expert or an influencer was how they were listened to and followed or abided by because of the degree of power they possessed in their decision-making capabilities. The degree of influence was difficult to measure, but number of view counts (popularity), the limited number of roles available, and impact by sheer decisions being made provided some measure of the effect of power. A third criterion that confirmed someone was an expert or an influencer was the ability to meaningfully contribute to the net neutrality debates. More precisely, this meant to contribute to the debates in an informed way by substantiating real ideas, concepts, issues, and arguments rooted in numbers and/or facts in one or more of the themes of economics, technology, politics, and law and regulation.

Length of time could render one an expert, like Sir Tim Berners-Lee as being one of the original figures who designed the World Wide Web. As well, scarcity of roles and degrees of importance in positions could render one an expert. There were only so many judges, so many Mozillas, so many politicians that represented each of the 50 states, so many print media news conglomerates. Popularity also influenced and shaped actors' perceptions on the net neutrality debates through reiteration of other experts' claims or perhaps making their own informed claims based on researched information.

I always used a brief parenthetical explanation or a short standalone sentence to outline the background, mission statement, or objectives of actors and institutions. Any time the same actor or institution returned in a given narrative and theme, I restated their/its background, mission statement, or objective, and whether they were a net neutrality advocate or opponent, to remind the reader of their/its role and position in the net neutrality debates. A haphazard Google Search led me to LinkedIn profiles, Wikipedia pages, YouTube videos, and corporate webpages (i.e., links to About Us or Our History) to give a snapshot of the role of the actor or institution.

But a snapshot was all it was. The snapshots gave little insight into the profile of each actor or institution since there were simply too many to address. The parenthetical explanation or short description of the actor or institution's title status, role, and responsibility was more for validation of their/its expertise.

The risk of simplifying the debates between two partisan sides was always in the back of my mind. Just because there was not a direct response by one side to the other did not mean the other side conceded to a specific argument. I tried to capture disagreements within each side to show that complexity in the arguments existed. What I did not do was evaluate whether and to what extent experts and influencers were convinced or skeptical of arguments by other experts and influencers. Even to evaluate the degree of power an idea, concept, issue, and argument had on turning the narrative on its head completely or moving the narrative needle by one needle notch was impossible. Furthermore, comparing experts by merit to rank the impact of each idea, concept, issue, and argument was not calculated. A policy expert from a non-profit think tank organization's input on a given concept was not superseded by a law professor's input. I did not attribute rank order values based on an expert's background and generate a tally score to observe whose arguments were more credible and impactful. The results from the data collected were not organized into a plebiscite to determine who was right or wrong. There were no winners and losers in the narrative debates declared by me as some impassioned arbiter of net neutrality.

The unsampled data not collected could have produced a neatly compartmentalized response, a perfect counterargument that could have trapped the other side from speaking further out of fear their response would be inferior. Except it did not. This was equivalent to a police detective's nightmare: not capturing the full numbered display (statistics) of crime rates due to the *dark figure of crime*. Unreported and undetected crimes raise the question of the accurate

number of crimes depicted. Questions are also raised about the extent of the type of crime being committed and the verdict (i.e., the motive, how it was committed, the investigation, the prosecution, and the sentence). Similarly, the unsampled data that was never Web-scraped, coded, and categorized was never thematized and narrated. This dissertation would have looked different in the narratives produced by experts and influencers if I had sampled 50% instead of 25% of the mainstream media news dataset to create the initial codebook.

The investigative journalists and news reporters, some of whom were anonymous in publishing their articles online, were considered influencers since they immersed themselves in researching numbers and facts. Exclusive interviews or reusable quotes from other experts could be found in online written newspaper pieces, which also made them sources of expertise to draw from. Some YouTubers could also not be considered experts since many of the channels on YouTube are ubiquitous as anyone could create a channel. But their abilities to forward ideas by immersing themselves in the research process, like journalists do, and have leading experts on their programs to moderate and ask questions, like journalists do, made them sources of expertise to draw from. However, professional journalists are subject to editorial and fact-checking standards and are highly scrutinized by editors when publishing their work, unlike most YouTubers. The range of YouTube videos and mainstream media news articles to choose from was nearly endless. The popularity of the videos and articles that built a reputation or that appeared on a high position in search results were Web-scraped. I now return to the fourth and fifth step of a qualitative content analysis.

The fourth step, thematizing data, is what I refer to as the surface-level narrative themes that emerged across the net neutrality debates and that connected to the surface-level socio-legal themes. The four themes were: economics, technology, politics, and law and regulation. The

themes were the result of the data collection, coding, and categorization and assessment by the researcher on patterns in the data (Goodrick & Rogers, 2015, p. 564). Themes were the highest level of abstraction that went beyond what any actor or institution specifically said. The themes in and of themselves were too vague to understand in depicting the net neutrality debates without specificity in referencing the units of data. And the units of data were too vast in number and unorganized to seriously understand without the negentropy stemmed from coding and categorization.

The four themes stemmed from Powers and Jablonski's (2015, p. 590) examination of political state government efforts to control ICTs (information and communications technologies) through laws and regulations, social norm development, and technology innovation, and how the private industry aims to financially benefit from the "normalization of [I]nternet-freedom ideologies," such as light-touch regulations. Powers and Jablonski's work is where I drew influence to organize the socio-legal themes. In addition, the wider scholarship explored in Chapter 1 points to these four themes as focal points to the net neutrality debates. In Chapter 1, I asked whether society could and should shape technology. Carr (2016, p. 34) asks, "if technology can promote or express positive or negative norms and values, to what extent is society able to navigate and direct them?" Understanding the social construction of technology is important for learning how technology engages with economics, politics, and laws and regulations. Thus, the net neutrality debates centre on how ICTs are governed by economic theory, political (in)action, and carefully crafted laws and regulations to sustain or dismantle net neutrality principles. Organizing the socio-legal themes will be detailed in section 2.3.5.

The fifth step, data narration, is the written result of the previous four steps and portrays how actors and institutions construct and represent ideas, concepts, issues, and arguments rooted

under the four themes. Data narration is an art since human subjectivity and interpretation is paired with rigorous procedures in measuring social phenomena. The narrative is written into a linear plot that points to questions, implications, and conclusions, whereas stories are about the way we speak about events (Brooks, 2003, p. 73; p. 95). In dominant and counter narratives, attention will be paid to discursive strategies to convince the audience of their arguments. The dominant and counter narratives will speak to the three research questions.

The matrix categorization query function helped organize the two-cluster comparison results required for the narrative analysis by positioning clusters by dividing net neutrality advocates from opponents. As well, the query function produced patterns to see how matching comparisons between clusters either existed or ceased to exist. Manually highlighting full and parts of passages in each of the 1,499 total files under the themes was the final step in prepping for the narrative analysis. The socio-legal narratives born out of the data collected, coded, and categorized found in the four themes of economics, technology, politics, and law and regulation will be listed. The data narration step will be explained further in section 2.3.6.

The research design sections that follow, 2.3.1–2.3.6, walks the reader through every step of the data collection and organization strategies exercised, the data coding schematic inductively drawn up, the coding analysis performed and the categories generated, considerations for intra-coder reliability, thematizing the data, and narrating the data. Figure 3 depicts the entire qualitative content analysis evolutionary steps taken and will be referenced at the beginning of each section to indicate the current step being discussed:

Figure 3

The Five Evolutionary Steps to a Content Analysis

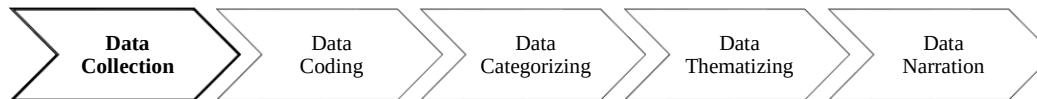


Variations of Figure 3 will be re-introduced at the beginning of each of the sections (except section 2.3.4) with the respective step bolded to indicate the stage of the qualitative content analysis process. The bolded arrows will be further deduced into sub arrows to highlight what is taking place inside each step.

2.3.1 – Data Collection & Organization Strategies

Figure 4

The Five Evolutionary Steps to a Content Analysis: Data Collection



- Data is collected and extracted to be stored and referenced using mundane and complex Web-scraping tools and techniques to build datasets
- Dataset #1: 2017 Order (website URL search)
- Dataset #2: ECFS comments (API key > JSON response extract using Postman) and attachments (website URL search)
- Dataset #3: YouTube videos (website keyword search)
- Dataset #4: Mainstream media news articles (three paid subscription proxy access databases keyword search)
- Dataset #5: Law documents (six paid subscription proxy access databases keyword search)
- Dataset #1 stays unaltered; Datasets #2, #3, and #5 are consolidated; and Dataset #4 is sampled

So far, I have been using the word *data* to describe the objects being collected and formatted to help produce results, when this is technically incorrect. In Latin, *data* means ‘to give,’ whereas *capta* means ‘to take’ (see Kitchin, 2014). *Data* derives from the Latin word *dare*, which means ‘to give.’ Today, we understand data as units that are taken. The Latin word *capta* means ‘to take’ as units “that have been selected and harvested from the sum of all potential” units (Kitchin, 2021, pp. 25–26). *Data* has become common nomenclature to refer to “information, especially facts or numbers, collected to be examined and considered and used to

help decision-making, or information in an electronic form that can be stored and used by a computer” (Cambridge Dictionary, 2021a). *Data* is the plural form of *datum*, which refers to a single fact, but data is now used in the singular, too. Data can be facts or numbers and letters, symbols, monikers or labels, addresses, and any other unit of study deemed collectable, organizable, and formattable. I follow suit in using *data* as a collection and extraction of information to be stored, referenced, and critically examined.

In critical data studies, data is understood to be socially constructed, partial, and reflecting the socio-economic and political biases of those collecting and/or using data collecting technologies. Kitchin (2021, p. 5) argues that data is not generated in a vacuum. Data is also not some raw unit that is ‘out there’ in the world waiting to be selected and harvested. Data are generated in the social world, data are actively produced. Data can certainly transform and become something entirely different than what might have been envisioned. To be clear, data are not some “benign, neutral measures that reflect the world as it is, within technical constraints” (p. 5). Humans decide how to generate, store, and render data. Decisions are thus influenced by “intended outcomes, theories and concepts, research designs, procedures, protocols, standards, resources and finance, regulations and laws, organizational processes, ethics reviews, [and] political context” (p. 5; pp. 24–25). Methodologies to collect data and technologies to produce outputs are required, but the sociality of data must not be taken for granted. Data is generated under the pretense of social values and desires and relations (p. 5).

In this section, I will review how data was collected and extracted to be stored and referenced using mundane and complex Web-scraping tools and techniques to build the datasets of the 2017 Order, the ECFS (Electronic Comment Filing System) attachments (and comments), YouTube videos, mainstream media news articles, and law documents. To begin, the 2017

Restoring Internet Freedom Order was manually downloaded from the FCC's website (<https://www.fcc.gov/document/fcc-releases-restoring-internet-freedom-order>) to comprise the first dataset.

The second dataset, the FCC's ECFS comments and attachment files, were scraped next. The purpose for Web-scraping the FCC's ECFS comments was to confirm and show how a portion of the submissions were fraudulent in narrating the data. My research focus was solely cast on the attachment files for the coding, categorization, thematizing, and narration of the FCC's ECFS data. However, I still Web-scraped the millions of comments to see for myself the fraudulent comments posted, even though no coding or categorization of the comments occurred. By accessing https://www.fcc.gov/ecfs/search/filings?proceedings_name=17-108&sort=date_disseminated,DESC, one will find every comment ever filed for Docket 17-108. For the date ranges, 04/26/17 was entered, when the applicant submission date was first created, until 03/13/20, when Republican President Trump declared a national state of emergency due to the COVID-19 pandemic. The result of the total number of comments filed in this date range was: 23,956,307. The dataset was too large to download as one file, so Web-scraping the dataset into more manageable chunks had to take place. GET was used to request defined data from the FCC's server. GET is one type of API (Application Programming Interface) function used to fetch and extract comments using an API key on the ECFS Public API Documentation website. By using the Postman platform to perform a JSON (JavaScript Object Notation) response extract, I was able to successfully scrape all comments. A total of 209 files housed all comments. A detailed set of procedures for signing up for an API key on data.gov and fetching and extracting the FCC's ECFS-submitted comments through JSON response extracts on Postman can be found in Table B1 in Appendix B.

It was much more meaningful and impactful to code, categorize, thematize, and narrate the ECFS attachment files (“Link(s) to Attachment(s)”) since experts and influencers could be identified, the power they pulled from their decisions could be pointed to, and their ideas, concepts, issues, and arguments rooted in numbers and/or facts in the economics, technology, politics, and law and regulation themes could be expanded on. In the 209 files produced, I manually went through each to search and note the attachment URL (Uniform Resource Locator). In one given document, a document-wide search (‘Ctrl’ + ‘F’) was performed by typing in “refer to attachment(s)” to then copy and paste each URL associated with each attachment into my Web browser to download the attachment file. In document “1,” for example, 812 results appeared. After copying and pasting the URL, the various files were downloaded and saved into a folder. If the file was a .txt or .text file extension, I NCaptured the result directly into NVivo. NCapture is a Web browser extension that allowed me to gather content to import to NVivo (see NVivo, n.d.-a). Table 2 depicts the types and numbers of files downloaded and saved.

Table 2

Types of Files Saved in the ECFS Attachment Files Database

Type of Attachment File	Number of Attachments
Blogs and opinion pieces	11
FOIA requests	1
From the FCC themselves	35
Individual posts to the FCC site	62
Legal resolutions	2
Letters to the FCC and specific members	147
Notice of Ex Parte	312
Petitions	10
Reports and essays	28
Warrant of Commitment Dockets	328

A total of 10,068 attachment files were scraped, consolidated to 954, and further consolidated to 936, as reflected in Table 2.

YouTube videos were fetched and extracted to explore the visual and audio side of the debates. This dataset differed from the pure word texts found in the other datasets to round the narratives through observations of facial expressions and body language. The visual and audio cues produced another layer of observable textual evidence for understanding the nature of the debates. For a detailed set of procedures for fetching and extracting all YouTube videos, please see Table B2 in Appendix B. Moreover, the reader will find the initial list of all YouTube video URLs in descending order by date in Appendix C.

To consolidate the total number of videos to be eventually coded, categorized, thematized, and narrated, each video was opened, one-by-one, to consider whether its uploaders and content fit my criteria of either: (a) the actor(s) or institution(s) talking or presenting had title status(es), roles, and responsibilities that could be confirmed through secondary research, (b) they were revered because of the prominence of power their decisions had on society, and (c) their contributions to the net neutrality debates were informed by one or more issues identified in the economics, technology, politics, and law and regulation themes. Videos were kept that had showcased expert and influencer opinions on net neutrality literary themes and that had large view counts that could potentially sway public opinions. Duplicate videos were discarded. The final count of videos was consolidated from 460, to 244, to 54 and encompassed mainstream media news segments, interviews with telecommunication titans, recorded U.S. Congressional debates, and explanatory videos. The total number of hours for all 54 videos was 65.5 hours.

Out of the five datasets, the mainstream media news dataset had the highest number of references fetched and extracted. Three mainstream media news databases were accessed through York University's paid subscription proxy access databases to scrape all possible English-speaking, U.S.-based written news articles on net neutrality. The three databases were

Dow Jones Factiva, PressReader, and Nexis Uni (formally Lexis Nexis Academic). The search dates were set between January 20, 2017 (the date Ajit Pai was appointed FCC Chairman by President Trump) – March 13, 2020. A detailed set of procedures for fetching and extracting the mainstream media news articles through the Factiva, PressReader, and Nexis Uni databases can be found in Table B3 in Appendix B.

All news articles that fell within the date of publication range, were U.S.-based and written in English, and contained any searchable “Net Neutrality” term in the title or main body of the text were included for potential coding, categorization, thematization, and narration. The reason for these parameters was to be able to generate as many codes as possible because of its high volume of data to code from. The highest number of all possible word or phrase associations to law and regulation was thus maximized. 21,642 news articles were collected from Factiva, 2,761 from PressReader, and 35,813 from Nexis Uni, for a total of 60,216.

Unlike the ECFS attachment files data and YouTube videos data, the mainstream media news data were not consolidated by searching through all 60,216 news articles. Instead, a sampling of all mainstream media news data occurred to deem whether the actors and institutions writing or being written about had title status(es), roles, and responsibilities that could be confirmed, were listened to and abided by because of the prominence of power their decisions had on society, and were informed by one or more issues in the socio-legal themes of economics, technology, politics, and law and regulation. 25% of the entire mainstream media news dataset was sampled to be potentially coded, categorized, thematized, and narrated.

The final number of news articles included in the qualitative content analysis is unknown since I sampled a collection of the articles from that 60,216 total, with sometimes 90–100 articles being captured in one single file. One single file held 100 or less news articles per download,

which was the maximum amount of news articles one could download into a file format at once. It is impossible to say how many mainstream media articles are included in the actual qualitative content analysis, after sampling and eliminating irrelevant material from the initial collection of news articles. For example, the way Factiva saves stories for export is as a PDF, which contains up to 100 stories retrieved during a search. This does not allow the software to distinguish individual stories, it only knows that somewhere in that collection of stories there is or is not relevant material based on the keyword search. As a result, it is not a specific news article that is screened as relevant or irrelevant, but a file containing as many as 100 stories that are either included or excluded. The same issue was found when searching and downloading news articles in Nexis Uni. I was only allowed to download the top 1,000 results if downloading 100 articles at a time. To get around this restriction, I had to download nine batches of 10 articles per batch (90 total) to be able to eventually scrape all 35,813 news articles. By contrast, in PressReader, I was able to download each of the 2,761 news articles one at a time.

The search strategy for mainstream media news was to browse Factiva, PressReader, and Nexis Uni without toggling the switch to eliminate duplicate copies of news stories. This was partly why there was a high return of results. I did not specify titles I wished to search. Some news stories from *The New York Times* may be archived in more than one database and could be found in subsidiary news publishers. News stories could have been released by subsidiary news publishers where their stories were exact copies of the original publication by parent news publishers. I would eliminate these exact duplicate copies if they were returned in the sampled dataset. Other times, subsidiary news publishers could have expanded on news stories compared to the original stories written by their parent news publishers. These types of edited stories were kept in the sampled dataset since updated information could have furthered how actors

communicate events whose plots are intended to bring an issue to realization (Baron & Epstein, 1997, p. 147). This search strategy did not impact the qualitative content analysis since the 25% sampled dataset comprised of these ‘expanded’ stories that could have added more to the original narrative. The ‘expanded’ stories could have pieced together a linear plot that pointed to questions, implications, and conclusions (Brooks, 2003, p. 73). Thus, these ‘expanded’ stories could have only been found if the toggle switch to omit duplicate stories from the initial search in databases remained turned off.

The fifth and final dataset comprised of law documents that formed a database to assess all possible English-written U.S.-based law documents collected from six databases. The type of law documents scraped included: Congressional documents and publications; Federal and States/Territories cases and codes; statutes and legislation; administrative materials; briefs, pleadings, and motions; administrative codes and regulations; and various collections, such as Congressional Hearings, Congressional Record, Federal Register, Congressional Bills, Congressional Reports, United States Code, United States Courts Opinions, Code of Federal Regulations, Budget of the United States Government, Public and Private Laws, Congressional Committee Prints, Congressional Documents, Compilation of Presidential Documents, History of Bills, Senate Manuals, and “Other.” The databases accessed to fetch and retrieve the law documents included HeinOnline, Lexis Advance Quicklaw, Lexis Uni, ProQuest Congressional, Google Scholar, and U.S. Government Publishing Office. Procedures for fetching and extracting the law documents through the six databases can be found in Table B4 in Appendix B.

After a mass Web-scraping of all iterations of law documents, a consolidation of the texts occurred, as depicted in Table 1. Some of the law documents, especially cases, briefs and pleadings, administrative materials, and Congressional publications, went through different

levels of time and versions. Thus, different levels of court where texts or debate proceedings commenced, or different iterations of the text that were written and/or re-written, or additional materials added to or stricken from the law record were marked by time. There were two methodological procedures at play: (1) collecting all possible data from databases to potentially code and categorize through word frequency queries and matrix categorization queries in NVivo and (2) thematizing and narrating specific time and version-marked texts with an eye for discussing the most impactful materials for understanding the debates. In the findings chapters, a sequential timeline of key events from the law documents will pinpoint the *when* of ideas, concepts, issues, and arguments. However, this ordering of time and version-marked law documents draws the issue of unequal weighting. Each type of law document will have varying impacts to the decision-making process and outcomes for how net neutrality principles should be upheld or repealed. Some law documents will be debates that are still unfolding with no final decision yet given. Other law documents were simple summaries of complex case law. It is outside the scope of this research to assign a statistical weight to each text unit to assess the pre-measured impact of law and regulatory outcomes. In addition, analyzing the law documents as document objects is outside the scope of this research. Analyzing the origin of the document as an entity, the version and the time it took to produce the document as a published entity, the number of pages or lines written, and the word-stock and language usage as objects were not points of focus.

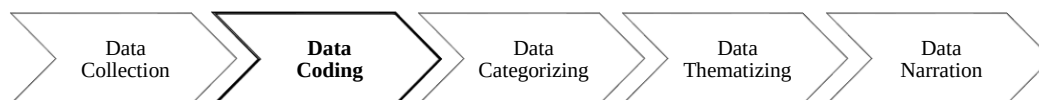
Eliminating duplicates under three provisos took place to create the law documents database. As expected, there were many duplicate law documents initially collected, so manually wading through each file and conducting a folder search of the same file contents commenced. In the folder housing all law documents, document identifiers in the search field (e.g., case

numbers, section numbers) were searched to find, verify, and discard duplicates. In addition, only the most recent drafts of files were kept. For example, the Congressional Research Service released multiple document versions with the same title with additional materials being added to its report under “Administrative Material.” Under the title of each report, it would say a date like, “Updated March 21, 2019.” So, that version was kept since it was the most recently released copy. Moreover, texts that were more formalities and organization measures, such as bill trackings, were discarded. These types of texts did not add any substantive value to regulatory arguments and debates and did not need to be included. Other than these three provisos, all remaining single-file, recent, and types of law documents were kept for coding, categorization, thematization, and narration. Some cases, like federal court challenges in the AT&T-Time Warner \$85 billion company merger, did not centre on the net neutrality debates *per se*, but cited parts of net neutrality findings and debates. These law documents were kept. The final count of law documents, as shown in Table 1, was consolidated from 1,627 to 657. In the next section, I will review how the collected data in the datasets became coded.

2.3.2 – Data Coding Schematic

Figure 5

The Five Evolutionary Steps to a Content Analysis: Data Coding



- Data coding balances net neutrality debate materials on one side and law and regulation in all of its contexts, subtexts, uses, meanings, and synonyms on the other side. Coding captures what is being expressed by word and phrase attribution
- 423 codes are produced from a word frequency query performed in NVivo (qualitative data analysis software) with the mainstream media news dataset. The codes are law and regulation-based and connected to the economics, technology, politics, and law and regulation themes
- The 423 codes chart is referenced with its coded numbers to actively searching out the same word or phrase in the YouTube transcripts and manually written notes made by me for videos that did not have transcripts, the ECFS attachment files, and the law documents datasets to ensure consistency

- The 2017 Order is manually coded by reading the entire document

Coding schematics can be “a translation device” that underscore words and phrases from written passages and entire written works for the eventual categorization, thematization, and narration of data (Poole & Folger, 2009, p. 367). Data coding is the fulcrum that balances all collections of net neutrality debate materials on one side and law and regulation in all of its contexts, subtexts, (intended) uses, meanings, and synonyms on the other side. Data coding is the lynchpin that allows for an exploration and critical analysis of socio-legal narratives. Socio-legal narratives begin with capturing the essence of law and regulation through specific reference or perspectives and understandings attributed to law and regulation. A code describes data fragments (Goodrick & Rogers, 2015, p. 564) and coding is the transcribing and recording of data fragments (Krippendorff, 2004, p. 220). The intention of coding is to capture what is being expressed by word or phrase attribution. Coding is another level of “data reduction” to eventually tag data into “more refined” categories (Goodrick & Rogers, 2015, p. 577).

Table 3 represents the 423 codes produced from a word frequency query performed in NVivo with the mainstream media news dataset. This dataset was chosen over the other four because of its high volume of data, and hence sources and words, to maximize the greatest number of all possible word or phrase associations to law and regulation. Again, the mainstream media news articles were not consolidated after Web-scraping the Factiva, PressReader, and Nexis Uni online databases. Unlike manually searching through the 2017 Order, YouTube videos, ECFS (Electronic Comment Filing System) attachment files, and law documents, there were far too many news articles (60,216) to manually search through as one lone researcher to consider whether someone could be considered an expert and influencer. Therefore, a word frequency query was not performed across the datasets at once.

Browsing Table 3, certain words may not seem relatable to law and regulation at first glance, such as “renegotiations” or “illegible.” But these words or phrases were included in the off chance that there was an association to the essence of law and regulation. To be safe, all words or phrases that could potentially speak to and reference the essence of law and regulation were included in the coding. The 423 codes in Table 3 were law and regulation-based and connected to the economics, technology, politics, and law and regulation themes. Even if two-sided market theory was being explained by an economist in a report written by a newspaper journalist, the essence of law and regulation in that written passage had to contain one or more of the words or phrases produced from NVivo’s word frequency query to be considered for further categorization, thematization, and narration.

Table 3

The 423 Codes Produced from NVivo’s Word Frequency Query

Word/Phrase	Files	References	Word/Phrase	Files	References
11judge	1	1	offence	73	467
abating	79	119	offenders	282	753
abolition	90	179	offregulation	1	1
abovethelaw	16	465	oflawsuits	1	1
acquit	52	75	oflegislation	1	1
acquittal	30	71	onlawmakers	1	1
act’	1611	62053	ordera	1	1
act21	1	2	orderabout	1	1
act43	1	1	orderafter	1	1
act52	1	2	orderare	1	1
actionoriented	1	3	orderbased	1	2
actions133	1	2	orderbook	1	1
actionsafter	1	1	orderbot	2	2
actionstate	1	1	orderdisplaced	1	1
activitybased	4	11	orderending	1	1
actpassed	1	1	orderfinds	1	1
adjudication	163	370	orderin	4	4
adjudicatory	20	36	orderincluding	1	1
adjourns	141	379	orderincreasesthe	1	1
adjournstoday	1	1	orderinvestigationof	1	1
advisedthat	1	1	orderits	1	1
affidavit	64	172	ordermore	1	1
amendme	3	118	orderor	1	1
amendmentthat	1	1	orderpermits	1	1
amendmentwhich	1	1	orderrelease	2	2
antiregulation	6	8	orderrequires	2	2
antiregulatory	13	18	ordershas	1	1

antitrust	513	10650	ordersin	1	1
anyregulatory	1	1	ordersof	1	1
appeals'	606	17906	ordersoon	1	1
appels	321	2019	order'sreclassification	1	1
appended	57	88	ordersremains	1	1
attorneys'	563	20817	order'srules	1	1
attorneyssaid	1	1	orderssupports	1	1
attorneywith	1	1	ordertakes	2	2
arguments	577	10530	ordertech	2	2
argumentsthey	1	3	orderthat	1	1
authoritativeness	82	159	orderthe	5	8
authoritiesor	2	2	orderto	1	2
billnumber	18	130	orderus	1	1
billpassed	1	2	orderwashington	1	1
bloglaw	1	43	orderwith	3	3
bylaws	37	71	outlaws	157	288
californiabased	3	5	overcriminalization	3	6
calinnovates	38	167	overregulation'	132	423
calinnovatescalinnovates	1	1	overruling	221	672
challenging	612	27793	paralegals	3	6
charges	50	105	penalizing	237	512
claimant	46	123	policiesand	1	1
claimingbest	23	29	policiesconcerned	1	1
colluding	165	278	policiesfor	1	2
collusive	273	934	policiespresident	2	2
committeehearing	12	26	policiesreliable	1	1
commlawmonitor	14	83	policiesthat	1	1
compliant	190	370	policieswhich	1	2
complicit	90	189	policywise	1	2
conjecture	31	52	policyacross	2	2
constitutes	16	18	policyalso	2	2
constitutiona	1	1	policyand	1	1
constitutionalist	8	12	policybot	2	6
constitutionallyprotected	2	3	policycompliant	1	3
contractual	198	539	policyfirst	1	2
counterargument	25	35	policyhad	1	1
countersuit	6	22	policyholders	12	27
court'	1384	64830	policyhousing	1	2
courthouses	84	181	policyideas	1	1
courtorders	9	21	polycymakerson	1	1
courtroom	139	414	polycymaning	1	1
courtselection	1	1	polycynational	1	1
courtship	31	42	polycynever	1	2
creatorslegislation	1	1	polycypresident	1	1
crimes'	570	5778	polycyrelated	1	1
criminalisation	16	19	polycythis	1	1
criminals	492	5632	polycyto	1	1
cybercrimes	247	1828	politico	1	1
cybercriminals'	45	85	politicalaccountability	1	1
cyberlaw	52	97	politicaldata	1	1
cyberlawradio	10	19	politicaldebates	1	1
debateproponents	1	1	politicallycharged	1	1
debatethe	1	1	politicallymotivated	3	3
debatethis	2	2	politicalorganizing	1	1
decriminalise	6	9	politicalright	1	2
decriminalizing	39	75	politicised	15	18

deregulators	541	4327	politicizing	210	458
deregulatory	353	1578	politicsif	1	1
disprove	56	75	politicsin	1	1
disproven	24	31	powerless	115	190
distributionregulations	1	1	preorder	22	60
egulators	4	7	privacya	1	2
egulatory	1	2	privacyinvasive	1	1
enforcementthe	1	1	privacynot	1	3
eregulations	1	3	privacyoffending	1	4
extralegal	8	9	privacyon	1	2
extrajudicially	11	13	privacyprotections	12	14
fccrepeals	6	9	privacysensitive	1	2
federalcourt	1	2	privacyshould	1	1
findlaw	10	26	privacywhen	1	1
fundamentalrights	1	1	proregulatory	2	2
government	85	188	prosecutions	373	1593
governmentmandated	2	3	prosecutorial	32	79
guidelineshas	1	1	prosecutors'	376	2485
guidelinesso	1	1	prosecutorsand	1	2
illegali	3	3	prosecutorsseeking	1	1
illegible	544	6378	protectionregulation	2	2
increasedregulations	1	1	recommendationboth	1	1
indefensible	42	87	recommendationfrom	1	1
injunctionin	2	2	recommendationsasked	1	1
injunctive	223	933	recommendationsin	1	1
injustices	161	296	recommendationson	1	2
investigat	3	4	recommendationssome	1	1
investigatory	46	78	recommendatory	4	4
itechlaw	2	23	redress'	179	444
judgeship	54	121	regulatecommerce	1	2
judging	778	19160	regulateda	1	1
judgments	378	1884	regulatedin	1	1
judgements	107	179	regulates	10	35
judiciousness	474	3966	regulateinterstatecommunications	1	1
jurisdictionalize	2	4	regulationacross	1	1
jurisdictions	554	5698	regulationare	1	2
jurisprudence	113	306	regulationaverse	1	1
jurisprudential	13	20	regulationbut	1	1
jurists	110	264	regulationcontinue	1	1
justices'	570	19953	regulationimportant	1	1
justicesued	1	1	regulationslastly	1	1
law'	1930	112712	regulationslicensees	1	1
lawa	3	4	regulationsprohibiting	1	1
lawabiding	5	7	regulationsprovided	1	1
lawalso	1	1	regulationsrepublicans	1	1
lawandcrime	8	24	regulationswhen	1	1
lawbased	1	1	regulationthat	2	2
lawbreaking	23	39	regulationthe	2	2
lawbytes	5	95	regulationto	1	1
lawconcerning	1	1	regulatorcomreg	1	1
lawdespite	1	1	regulatorily	3	3
lawenforcement	5	6	regulatorincorporate	1	1
lawfare	25	30	regulatorsbannedfacebook	1	1
lawin	2	3	regulatorsscanpunish	1	1
lawler	50	62	regulatory'catch	1	1
lawless	78	152	renegotiations	187	594

lawmakersare	1	3	repealthrough	1	1
lawmakerselsewhere	1	1	repealttitle	1	1
lawmakersin	1	1	repealwashington	1	1
lawmakerstried	1	1	republicanlawmakers	1	1
lawmakerstwitter	1	1	reregulation	14	49
lawmaking	576	12638	rightsand	3	4
lawman	3	7	rightsbased	2	3
lawmakers'	1	1	rightsbefore	1	2
lawmen	2	2	rightsby	1	1
lawnewz	10	26	rightsdefenders	1	1
lawofficially	2	2	rightsof	2	3
lawprohibits	1	1	rightsthroughout	1	2
lawslike	2	2	ruleknown	4	4
lawsmake	1	1	rulemakinglike	1	2
lawson	37	80	rukenew	1	1
lawsrequiring	1	1	rulers'	49	96
lawstate	3	5	rulesare	1	1
lawsthat	2	2	rulesbased	1	4
lawstime	2	2	rulesbecoming	2	2
lawsuilt	1	1	rulesbut	1	1
lawsuitclaiming	1	1	rulescommittee	1	1
lawsuitfor	1	1	rulescongressman	1	1
lawsto	1	1	rulesdemocrats	1	1
lawsuiton	1	1	rulesfor	2	2
lawsuits	549	10229	rulesgive	1	1
lawsuitsbut	2	2	rulesgovernment	2	3
lawsuitthe	2	2	rulesin	2	2
lawswill	1	1	rulesleaving	1	1
lawtell	1	1	ruleslike	1	1
lawthe	3	3	rules'no	1	1
lawthere	1	1	rulesparticularly	1	1
lawupon	1	1	rulespresident	1	1
lawyers'	774	10334	rulesrecognize	1	1
legalese	47	154	ruleshould	1	1
legalframework	1	1	rulestaking	1	1
legalaidd	2	2	rulesthat	4	5
legalising	18	32	rulesthe	7	7
legalistic	13	18	rulesthere	1	1
legally	707	27501	ruleswhich	2	2
legallylightweight	2	3	rulethe	2	2
legislation	5	22	rulethrough	2	2
legislationand	5	6	ruleto	1	1
legislationby	1	1	rulingives	1	1
legislationdespite	1	1	rulings	2531	148127
legislationintroduced	1	1	rulingsprivate	1	1
legislationon	4	4	selfregulation	13	15
legislationweek	1	1	selfregulatory	9	10
legislative system	1	1	stateslawmakers	1	1
legislators'	616	58726	stateregulated	1	1
legislaturelast	1	1	stateregulatory	1	1
legislatureseeks	1	2	subregulatory	1	2
legislaturesrarley	1	1	supremecourt	31	76
legislation	1	1	theirlawsuit	1	1
legislature	2	2	theregulation	3	4
lessregulated	3	3	theregulatory	2	2
lessregulatory	1	1	to defend	6	10

litigious	12	16	tolawyer	1	1
litigators	518	6983	unconstitutionally	277	1358
mainlawmakers	1	1	underregulated	3	3
narrators	375	1312	undersigned	44	57
nationalregulatory	1	1	ungovernable	20	26
neutralitycongressman	1	1	unlawyered	2	2
newsregulations	1	1	unlawfulness	355	1443
neutralitylaw	17	18	unlicensed	251	1514
neutralitylegislationfrom	1	1	unreasoned	396	2017
neutralityregulations	16	18	unregulated	252	578
neutralityregulatory	1	1	verizonlawyer	1	1
nonlawyers	4	8	violatesany	1	1
nonlegislative	6	7	violationscalifornia	1	1
nonregulation'	31	85	violationthat	1	1
nonregulatory	3	4	violators'	601	12628
notderegulation	1	2	washingtoncongressional	1	1
objectionable	101	208			

Note. The 423 codes that were initially produced in the Mainstream Media News dataset from a Word Frequency Query in NVivo.

Qualitative data analysis software (QDAS) was needed to assist in coordinating and making connections within and between voluminous amounts of data. Managing and exploring patterns in the data was an iterative process from the importation of data, to coding the data with parent and child nodes, to categorizing to better describe codes, to querying relationships between nodes, to visualizing the data.

Sorting unstructured data allowed relationships to be seen between written ideas, concepts, issues, and arguments. Trends across datasets could be seen in terms of number of files referenced. And recalling precisely where a passage was, how it was coded, how it was categorized, and how it was thematized could be traced. The ease of importing various types of data, organization techniques through query functions, and visualization tools through results were three main benefits to using QDAS. What NVivo did not do was perform a perfect, untouched, once-through automation of coding, categorization, thematization, or narration of the data. The human eye was still required. Manually scrolling through each code word or phrase to discriminate which ones to keep and discard was done by the researcher. Manually scrolling

through each coded passage to highlight significant parts of a passage with ‘coding stripes’ to categorize the data was done by the researcher. Manually scrolling through each categorization generated to consolidate the data further into top-level themes was done by the researcher. QDAS cannot replace the human’s analytical mind to arrange data for their purposes or recognize patterns in data units in relations to their research goals.

A separate NVivo file was created for each of the four datasets, save for the 2017 Order. The 2017 Order was manually coded by reading the entire document. To generate the organic, data-driven socio-legal codebook, a step-by-step procedure was taken to perform an NVivo word frequency query in the mainstream media news database, which can be reviewed in Table D1 in Appendix D. The exact same procedures in Table D1 in Appendix D were performed for the YouTube transcripts and manually written notes made by me for videos that did not have transcripts, the ECFS attachment files, and the law documents. For the YouTube manually-written notes portion, the video’s playback speed was slowed down to write down verbatim quotes and general ideas, concepts, issues, and arguments brought up that matched the 423 codes. These notes were written by me in the same file where the transcripts of the videos were produced. This preparation of the data allowed me to then perform a word frequency query. For the ECFS attachment files, after manually consolidating the files to 936, the files were already prepared for a word frequency query. And for the law documents, after discarding duplicate texts, past versions of the most recent texts, and texts of formalities and organization measures to 657, the texts were also already prepared for a word frequency query.

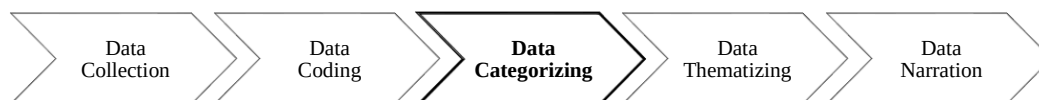
The 423 codes chart (Table 3) was referenced with its respective coded numbers to actively searching out the same word or phrase in each of the remaining datasets. To do so, highlighting and right-clicking the matched word or phrase > selecting “Create As Code” > and

assigning the same numbered value in the 423 codes chart in NVivo took place. This way, the datasets were consistently coded using the same coding schematic first established by the mainstream media news dataset. The third step to a strong content analysis was the generation of categories. This was a higher-level of organizing the data into distinguishable categories. Seeing as the four themes were connected to law and regulation based on the 423 codes, the multiple narratives throughout the findings chapters were mobilized by and tied to law and regulation. This self-fulfilling feedback loop may seem superfluous. But this feedback loop was the most straightforward way to ensure that the content I Web-scraped into the five NVivo datasets were rooted in law and regulation. The codes were created to help organize the categorization of classes and clusters into narratives of understanding. The 423 out of 273,622 codes finalized in NVivo's word frequency query function comprised of words and phrases that could be retraced back to law and regulation. Words and phrases like "abovethelaw" and "rulesgovernment" found in the initial word frequency query in the mainstream media news NVivo dataset were deemed attributable to the essence of law and regulation and needed to be included.

2.3.3 – Generating the Categorizations in NVivo

Figure 6

The Five Evolutionary Steps to a Content Analysis: Data Categorizing



- Passages linked with coded words or phrases in each dataset must be extracted from NVivo and placed into a separate file. The passages with the coded words or phrases are highlighted in NVivo by reading above and below the highlights to gain context and to decide whether the passage contributes to the understandings of the debates as it related to law and regulation. The collection of passages in the newly created files from each dataset are uploaded to NVivo to be categorized
- Category node classes are actors and institutions coded as *advocates* or *opponents* and by type of *actors/institutions* in each passage
- Category node clusters are inductively created in NVivo to signal what informational topic is being discussed in each passage

- Project maps visually present the organization of classes and clusters to show the links between project items
- Word frequency queries results:
 - Produce the 10-most frequently cited words or phrases in the *advocates*, *opponents*, and *actors/institutions* classes, in the intersections between (1) *advocates* and *actors/institutions* together and (2) *opponents* and *actors/institutions* together, and in the datasets together and individually
 - A word cloud generates the 100 most frequent words or phrases produced from the entire project, including all classes and clusters
- Matrix categorization queries results:
 - Classify the number of clusters found in each of the datasets across all three classes
 - Display text results for all possible connections between all *advocate* clusters, all *opponent* clusters, all *advocate* and *actor/institution* clusters, and all *opponent* and *actor/institution* clusters, also called two-cluster comparisons
 - Produce the numbers of references for the two-cluster comparisons and the number of datasets referenced
 - Produce the numbers of dataset references for the two-cluster comparisons

After coding the data, preparations had to be made before categorizations of the data in NVivo could occur. Passages linked with coded words or phrases in each dataset had to be extracted from NVivo and placed into a separate file. The passages with the coded words or phrases were highlighted in NVivo. Reading above and below the highlights to gain context and to decide whether the passage contributed to the understandings of the debates as it related to law and regulation commenced. The collection of passages in the newly created files from each dataset were uploaded to NVivo to be categorized. A more detailed set of procedures for generating the categorizations of the advocate, opponent, and actor/institution classes and their clusters can be found in Table D2 in Appendix D.

Manually scrolling and reading each passage occurred to consider whether and how each passage or parts of a passage could be attributed a category “node.” I distinguished actors and institutions by three category node classes, commonly referred to as *descriptive* or *case categorization* (Krippendorff, 2013, p. 205). The passages were separated into *advocates* and *opponents*, and then into type of *actors/institutions*. Those actors and institutions who represented an institution or themselves and made arguments about the net neutrality debates in an advocating and supporting light, who tried to promote the benefits of net neutrality principles,

and who tried to critique those who counter-argued claims that backed the repeal of net neutrality principles were deemed *advocates*. By contrast, *opponent* actors and institutions were labelled so if they represented an institution or themselves and made arguments about the net neutrality debates in an oppositional and resistant light, who tried to endorse the advantages of repealing net neutrality principles, and who tried to critique those who counter-argued claims that reinforced net neutrality principles. The significance of attributing (parts of) passages to class nodes helped to identify who was communicating and who was being communicated about. Labelling by class allowed for further grouping of actors and institutions to be compared and/or contrasted when narrating who said what and who was being referred to in debates.

A debatable issue had two or more sides that made contentious claims to counter what the other side expressed, whether directly or indirectly, and usually cited evidence to reinforce claims. Qualifying the class-type of actors or institutions and whether and how they defended or attacked net neutrality principles for each passage was key for context and comparative measures. Even if the majority of a newspaper article was written in a supportive pro-net neutrality light by outlining the benefits of upholding principles, and the author balanced the perspective of the piece by including quotes from a state senator who disapproved of the principles, that passage (including the senator and the associated clusters they referred to) would be categorized in the *opponents* class.

I further distinguished all passages by creating category node clusters in NVivo. *Topic categorization* signalled what informational topic was being discussed in each passage. The same passage could contain any number of *advocate* and *actor/institution* clusters or *opponent* and *actor/institution* clusters at one time. The clusters were created organically by reading each passage. Each cluster had to mirror both *advocates* (represented as “1” in Table 4) and *opponents*

(represented as “2” in Table 4). This inductive categorization allowed the data to be categorized by the nature of topics being expressed. The significance of attributing (parts of) passages to cluster nodes helped to identify what was being communicated about. Labelling by cluster allowed for further grouping of topics to be compared and/or contrasted when narrating precisely what was being referred to in the debates.

Taken together, the classes described the *who* and the clusters described the *what* in the passages. On a secondary level, I will analyze the *where*, *when*, *why*, and *how* actors and institutions communicated and *where*, *when*, *why*, and *how* topics were discussed in the findings and analysis chapters. Table 4 presents all category “node” classes and clusters.

Table 4

The Categorization Results of the Advocate, Opponent, and Actor/Institution Classes and their Clusters

(1) Advocates	(2) Opponents	(3) Actors/Institutions
(1.1) State Gov Oversight	(2.1) State Gov Oversight	(3.1) BIAS; Telecomms; ISPs
(1.2) Blocking	(2.2) Blocking	(3.2) Lawyers; Legal Experts
(1.3) Paid Prioritization	(2.3) Paid Prioritization	(3.3) Economists
(1.4) Attacking Political Parties	(2.4) Attacking Political Parties	(3.4) Investigative or News Journalists
(1.5) Fin or Infra Investments	(2.5) Fin or Infra Investments	(3.5) Academics; Scholars
(1.6) Jurisdiction	(2.6) Jurisdiction	(3.6) Tech Industry Leaders; Tech Entrepreneurs
(1.6.1) Federal	(2.6.1) Federal	(3.7) Popular Commentators
(1.6.2) State	(2.6.2) State	(3.8) Politicians
(1.6.3) Municipal; County	(2.6.3) Municipal; County	(3.9) FCC Members
(1.7) Creating New Laws	(2.7) Creating New Laws	(3.10) FTC Members
(1.8) Relying on Existing Laws	(2.8) Relying on Existing Laws	(3.11) State Bills
(1.9) FCC’s ECFS	(2.9) FCC’s ECFS	
(1.10) Digital Divide	(2.10) Digital Divide	
(1.11) Explaining with Analogies	(2.11) Explaining with Analogies	
(1.12) Openness and Transparency	(2.12) Openness and Transparency	
(1.13) Current Legal Proceedings	(2.13) Current Legal Proceedings	
(1.14) Titles I and II	(2.14) Titles I and II	
(1.15) Throttling	(2.15) Throttling	
(1.16) FTC	(2.16) FTC	
(1.17) Market Competition	(2.17) Market Competition	
(1.18) Free Speech	(2.18) Free Speech	
(1.19) Walled Garden	(2.19) Walled Garden	
(1.20) Discrimination	(2.20) Discrimination	
(1.21) 5G	(2.21) 5G	

A few qualifying statements must be made to explain how some classes and clusters were categorized a certain way. A passage was categorized as (3.4) *Investigative or News Journalists* if the written word was the journalist's own perspective on net neutrality. But if journalists referred to John Oliver, the categorization of the written word would fall under (3.7) *Popular Commentators* since it was Oliver who was being quoted or referred to. All ISPs (Internet Service Providers), regardless of corporate size, were included in the (3.1) *BIAS; Telecomms; ISPs* categorization. But platform or content developers, or prominent technology figures in the field, such as Sir Tim Berners-Lee, in a given passage were categorized under (3.6) *Tech Industry Leaders; Tech Entrepreneurs*. For (3.9) *FCC Members* and (3.10) *FTC Members*, the actors could be past (before 2017) or present (2017–2020) actors and institutions. (3.11) *State Bills* were clearly not *actors/institutions*. This topic was categorized under this class because it connected to how letters signed by politicians, lawyers, business owners, academics, technology entrepreneurs *proposed* state net neutrality laws, or how states wrote, submitted, debated, and substantiated their own state bills for net neutrality laws. While state bills were an entity and a vehicle to discuss and substantiate law, it was actors and institutions who defended or attacked such laws. To put 3.11 as a 'child node' under the multiple *actors/institutions* mentioned above would not make sense since a broad categorization of *State Bills*, regardless of the *actors/institutions* debating the bills, deserved its own cluster under its *actors/institutions* class. One or more topics in the *advocates* or *opponents* clusters would be highlighted in that same passage anyway to distinguish whether the bill was being debated in an advocating or oppositional light, such as *State Gov Oversight, Attacking Political Parties, State under Jurisdiction, Creating New Laws*, and *Current Legal Proceedings*. (1.6) *Jurisdiction* and (2.6) *Jurisdiction* were never highlighted in any of the passages; instead, one or more of its three

‘child nodes’ (*Federal, State, or Municipal/County*) were highlighted. Passages that mentioned the Congressional Review Act (CRA) were highlighted under *Creating New Laws* clusters. Passages that mentioned anti-trust sentiments were categorized under *FTC* clusters. Passages that mentioned Freedom of Information Act (FOIA) were categorized under *Free Speech* clusters. Passages that mentioned zero rating were categorized under *Paid Prioritization* clusters. Passages that mentioned telehealth were categorized under *Digital Divide* clusters. And the cluster *Discrimination* could hold two different meanings: social justice issues (e.g., urban digital redlining of laying fibre optic cable) or technological issues (e.g., data discrimination, like in deep packet inspection).

Project maps were created as another way to visually present the organization of classes and clusters. Project mapping was one way to show the links between project items. Figures 7, 8, and 9 represent the project maps associated with each of the three classes and how they project their respective clusters. The procedures for generating the “Project Maps” feature in NVivo can be found in Table D3 in Appendix D.

Figure 7

A Nodal Depiction of the Advocates Class and Clusters Generated in NVivo



Figure 8

A Nodal Depiction of the Opponents Class and Clusters Generated in NVivo

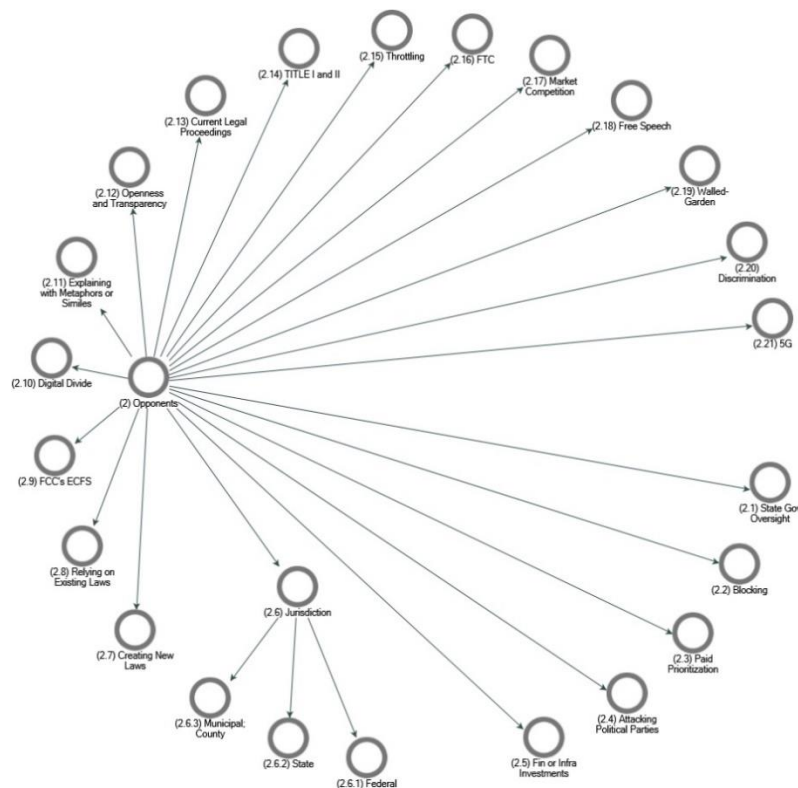
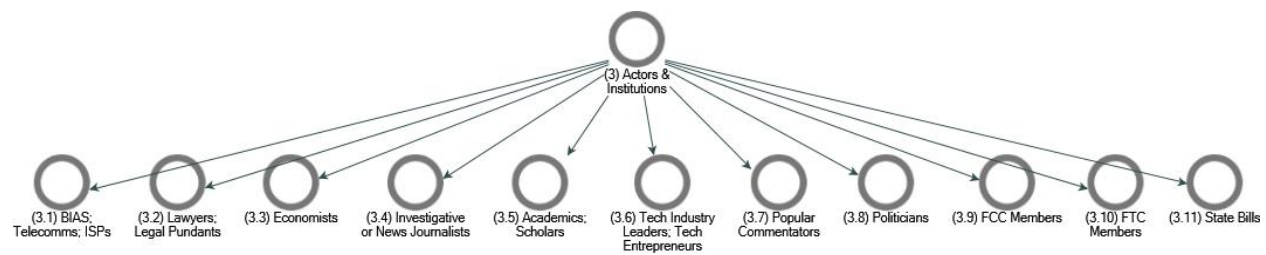


Figure 9

A Nodal Depiction of the Actors/Institutions Class and Clusters Generated in NVivo



Once all passages had been categorized, the results of each passage found in its class and cluster were produced and saved in NVivo. The procedures for how this was completed are found in Table D4 in Appendix D. The data categorization step continues in the next two sections below with final word frequency queries results and matrix categorization queries results.

2.3.3.1 – Word Frequency Queries Results

After 500-pages had been categorized under classes and clusters, word frequency queries results could be generated. The word or phrase itself can be an object of study, a snapshot of what frequently came up in the debates. The reason for generating word frequency queries was to see the 10-most frequently cited words or phrases in the *advocates*, *opponents*, and *actors/institutions* classes, in the intersections between (1) *advocates* and *actors/institutions* together and (2) *opponents* and *actors/institutions* together, and in the datasets together and individually. The procedures taken to generate different types of word frequency query types are recorded in Table D5 in Appendix D. Tables 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15, and Figure 10 display these results.

Table 5

The 10 Most Frequent Words or Phrases Produced from the Advocates Class and Clusters

Word	Count	Weighted Percentage	Similar Words
fcc'	6438	1.74	@fcc, fcc, fcc', 'fcc'
internet	6232	1.68	internet

states	5226	1.41	state, 'state, stated, states, states', states', stating
neutrality	5164	1.39	neutral, neutrality, neutrality', neutrality'
net	5016	1.35	net, 'net
services	4440	1.20	service, service', services
rulings	3763	1.01	rule, ruled, rules, rules', 'rules', ruling, rulings
laws	3729	1.01	law, lawful, lawfully, laws
providers	3009	0.81	provide, provided, providence, provider, providers, providers', providers', provides, providing
order	2803	0.76	order, ordered, ordering, orderly, orders

Table 6

The 10 Most Frequent Words or Phrases Produced from the Opponents Class and Clusters

Word	Count	Weighted Percentage	Similar Words
internet	4282	1.93	internet, internet'
service	3592	1.62	service, service', services
states	2497	1.13	state, stated, states, states', stating
regulations	2295	1.03	regulate, regulated, regulates, regulating, regulation, regulations, regulator, regulators
ruling	2230	1.01	rule, ruled, rules, ruling, rulings
fcc	2208	1.00	fcc, 'fcc
broadband	2147	0.97	broadband
neutrality	1818	0.82	neutral, neutrality, neutrality'
net	1805	0.81	net, 'net
laws	1670	0.75	law, lawful, lawfully, lawfulness, laws

Table 7

The 10 Most Frequent Words or Phrases Produced from the Actors/Institutions Class and Clusters

Word	Count	Weighted Percentage	Similar Words
fcc'	4771	1.58	@fcc, fcc, fcc', 'fcc, 'fcc'
internet	4761	1.57	internet, internet'
neutrality	4004	1.32	neutral, neutrality, neutrality', neutrality'
net	3960	1.31	net, 'net
states	3911	1.29	state, 'state, stated, states, states', states', stating
service'	3332	1.10	service, service', service', services
rulings	3232	1.07	rule, ruled, rules, rules', 'rules', ruling, rulings
laws	2861	0.94	law, lawful, lawfully, lawfulness, laws
providers	2218	0.73	provide, provided, providence, provider, providers, providers', providers', provides, providing
broadband	2193	0.72	broadband

Table 8

The 10 Most Frequent Words or Phrases Produced from the Advocates vs Actors/Institutions Classes and Clusters

Word	Count	Weighted Percentage	Similar Words
fcc'	29059	1.87	@fcc, fcc, fcc', 'fcc'
internet	26199	1.69	internet
states	23641	1.52	state, 'state, stated, states, states', states', stating
neutrality	22262	1.43	neutral, neutrality, neutrality', neutrality'
net	21734	1.40	net, 'net
services	17272	1.11	service, service', services
rulings	16249	1.05	rule, ruled, rules, rules', 'rules', ruling, rulings
laws	15302	0.99	law, lawful, lawfully, laws
courts	14028	0.90	court, courts
order	11919	0.77	order, ordered, ordering, orderly, orders

Table 9

The 10 Most Frequent Words or Phrases Produced from the Opponents vs Actors/Institutions Classes and Clusters

Word	Count	Weighted Percentage	Similar Words
internet	14057	1.88	internet, internet'
service	11428	1.53	service, service', services
states	8667	1.16	state, stated, states, states', stating
ruling	7756	1.04	rule, ruled, rules, ruling, rulings
regulations	7676	1.03	regulate, regulated, regulates, regulating, regulation, regulations, regulator, regulators
fcc	7452	1.00	fcc, 'fcc
broadband	6964	0.93	broadband
neutrality	6613	0.89	neutral, neutrality, neutrality'
net	6566	0.88	net, 'net
laws	5688	0.76	law, lawful, lawfully, lawfulness, laws

Table 10

The 10 Most Frequent Words or Phrases Produced from the Entire Project, Including All Classes and Clusters

Word	Count	Weighted Percentage	Similar Words
internet'	20735	1.68	internet, internet', internet'
service'	17900	1.45	service, service', service', services, services'
fcc'	17063	1.38	@fcc, fcc, fcc', 'fcc, 'fcc'
stating	13276	1.07	state, 'state, stated, states, states', states', stating
neutrality'	12269	0.99	neutral, neutrality, neutrality', neutrality'
net	12057	0.97	net, 'net
rulings	12031	0.97	rule, rule', ruled, rules, rules', 'rules', ruling, rulings
broadband	10806	0.87	broadband
providing	10581	0.86	provid, provide, provide', provided, providence, provider, provider', providers, providers', providers', provides, providing
laws	9409	0.76	law, law', lawful, lawfully, lawfulness, laws

The 100 Most Frequent Words or Phrases Produced from the Entire Project, Including All Classes and Clusters



Word	Count	Weighted Percentage	Similar Words
service'	5601	2.21	service, service', services, services'
internet'	4117	1.63	internet, internet'
broadband	3416	1.35	broadband
providing	3127	1.24	provid, provide, provide', provided, provider, provider', providers, providers', provides, providing
comments	2906	1.15	comment, commentators, commented, commenter, commenters, commenters', commenting, comments

commissions	2797	1.10	commission, commission', commissioned, commissions
see	2474	0.98	see, seeing, sees
access	2350	0.93	access, access', accessed, accesses, accessibility, accessible, accessing
fcc	2345	0.93	fcc
orders	1934	0.76	order, ordered, ordering, orders

Table 12

The 10 Most Frequent Words or Phrases Produced from the ECFS Attachment Files Dataset

Word	Count	Weighted Percentage	Similar Words
laws	115	1.78	law, law', lawful, lawfulness, laws
states	91	1.41	state, stated, states
services	89	1.38	service, services
broadband	79	1.22	broadband
antitrust	71	1.10	antitrust
internet	68	1.05	internet
providers	64	0.99	provide, provided, provider, providers, provides
commission	62	0.96	commission
fcc	61	0.94	fcc
consumer	55	0.85	consumer, consumers, consumers'

Table 13

The 10 Most Frequent Words or Phrases Produced from the YouTube Videos Dataset

Word	Count	Weighted Percentage	Similar Words
https	55	1.63	https
youtu	54	1.60	youtu
fcc	42	1.24	fcc
internet	42	1.24	internet
states	31	0.92	state, stated, states
isps	29	0.86	isp, isps
service	25	0.74	service, services
protections	23	0.68	protect, protecting, protection, protections, protective
neutrality	21	0.62	neutrality
net	20	0.59	net

Table 14

The 10 Most Frequent Words or Phrases Produced from the Mainstream Media News Dataset

Word	Count	Weighted Percentage	Similar Words
fcc	896	1.73	@fcc, fcc, fcc', 'fcc, 'fcc'
net	888	1.71	net, 'net

neutrality	878	1.69	neutral, neutrality, neutrality', neutrality'
internet	817	1.57	internet, internet'
rulings	701	1.35	rule, ruled, rules, rules', 'rules', ruling, rulings
states	661	1.27	state, 'state, stated, states, states', states', stating
laws	554	1.07	law, law', lawful, lawfully, laws
service	441	0.85	service, service', service', services
courts	408	0.79	court, court', courts
providers	335	0.65	provide, provided, provider, providers, providers', provides, providing

Table 15

The 10 Most Frequent Words or Phrases Produced from the Law Documents Dataset

Word	Count	Weighted Percentage	Similar Words
nothing	459	1.72	nothing
internet	416	1.56	internet
service	380	1.42	service, services
fcc	302	1.13	fcc
providers	235	0.88	provide, provided, providence, provider, providers, providers', providers', provides, providing
states	211	0.79	state, 'state, stated, states, states'
orders	206	0.77	order, order', orderly, orders
broadband	188	0.70	broadband
commission	170	0.64	commission, commissioned, commissions
neutrality	166	0.62	neutrality

Comparing the *advocates* class and clusters with the *opponents* class and clusters reveals interesting similarities and differences between the top 10 most frequent words or phrases cited. For both *advocate* and *opponent* classes, “States” were cited in the third position, “Neutrality” was cited one position higher than “Net,” and “Internet” was within the top two positions. “Laws” was placed in the eighth position for *advocates*, while “Laws” placed tenth for *opponents*. “FCC” was designated in the first position for *advocates*, while “FCC” was designated sixth for *opponents*. “Ruling” was cited in the fifth position for *opponents*, while “Ruling” was cited seventh for *advocates*. “Services,” “Providers,” and “Order” were positioned for *advocates* and not for *opponents*. And “Regulations” and “Broadband” were positioned for *opponents* and not for *advocates*. Moreover, when the *actors/institutions* class and clusters

intersected with the *advocate* class and clusters (Table 8), the only difference between the sole *advocates* class and clusters (Table 5) was that “Courts” replaced “Providers” in the ninth position. When the *actors/institutions* class and clusters intersected with the *opponent* class and clusters (Table 9), the only difference between the sole *opponents* class and clusters (Table 6) was that “Ruling” and “Regulations” were switched in the fourth and fifth positions. Lastly, one glaring omission of the word “Laws” did not appear in the top 10 of the Law Documents, YouTube Videos, and 2017 Order datasets. “Internet” (position six or higher), “Service” (position eight or higher), and “FCC” (position nine or higher) did appear in the top 10 most frequent words or phrases produced across the datasets.

The second set of results, matrix categorization queries, are detailed next to explore how many clusters were generated in each dataset for all three classes, the numbers of cluster references and datasets referenced across all three classes, and the numbers of references for two-cluster comparisons across classes.

2.3.3.2 – Matrix Categorization Queries Results

The matrix categorization queries function in NVivo was pertinent to use as a last step before thematizing the data to observe more patterns. The matrix categorization query function was used for two purposes: (1) to classify the number of clusters found in each of the datasets across all three classes and (2) to display text results for all possible connections between all *advocate* clusters, all *opponent* clusters, all *advocate* and *actor/institution* clusters, and all *opponent* and *actor/institution* clusters.

Tables 16, 17, and 18 show how many clusters appear in the *advocate*, *opponent*, and *actor/institution* classes in each of the datasets. The procedures to arrive at these results in NVivo are detailed in Table D6 in Appendix D.

Table 16

The Total Number of the Advocate Cluster References Found in all Five Datasets

Cluster Reference	2017 Order	ECFS Attachment Files	YouTube Videos	Law Documents	Mainstream Media News
(1.1) State Gov Oversight	1	23	16	35	120
(1.10) Digital Divide	1	2	7	7	27
(1.11) Explaining with Analogies	3	3	7	13	33
(1.12) Openness and Transparency	3	1	9	25	40
(1.13) Current Legal Proceedings	0	8	10	36	104
(1.14) Titles I and II	0	6	2	15	44
(1.15) Throttling	0	1	0	14	62
(1.16) FTC	0	10	7	10	23
(1.17) Market Competition	2	10	1	14	21
(1.18) Free Speech	0	5	3	14	9
(1.19) Walled Garden	0	0	3	5	2
(1.2) Blocking	1	3	0	12	56
(1.20) Discrimination	0	3	2	8	22
(1.21) 5G	0	0	1	1	0
(1.3) Paid Prioritization	0	4	5	20	57
(1.4) Attacking Political Parties	0	1	4	10	25
(1.5) Fin or Infra Investments	3	3	7	12	25
(1.6.1) Federal	0	12	9	13	45
(1.6.2) State	0	6	9	10	84
(1.6.3) Municipal; County	0	3	5	8	22
(1.7) Creating New Laws	0	9	15	27	102
(1.8) Relying on Existing Laws	1	14	7	22	27
(1.9) FCC's ECFS	0	1	5	21	19

Table 17

The Total Number of the Opponent Cluster References Found in all Five Datasets

Cluster Reference	2017 Order	ECFS Attachment Files	YouTube Videos	Law Documents	Mainstream Media News
(2.1) State Gov Oversight	29	18	11	30	65
(2.10) Digital Divide	1	0	2	2	8
(2.11) Explaining with Analogies	1	1	2	12	13
(2.12) Openness and Transparency	5	1	3	8	12
(2.13) Current Legal Proceedings	0	5	3	27	42
(2.14) Titles I and II	33	11	9	20	21
(2.15) Throttling	4	3	2	9	19

(2.16) FTC	8	12	6	6	17
(2.17) Market Competition	13	11	2	13	14
(2.18) Free Speech	0	0	1	5	2
(2.19) Walled Garden	0	0	1	0	0
(2.2) Blocking	4	2	6	8	15
(2.20) Discrimination	0	0	2	4	3
(2.21) 5G	1	0	0	2	2
(2.3) Paid Prioritization	7	1	4	12	18
(2.4) Attacking Political Parties	0	2	3	15	19
(2.5) Fin or Infra Investments	13	7	6	10	17
(2.6.1) Federal	8	10	5	13	25
(2.6.2) State	8	10	3	9	28
(2.6.3) Municipal; County	8	5	2	7	6
(2.7) Creating New Laws	18	11	5	21	53
(2.8) Relying on Existing Laws	26	13	9	21	18
(2.9) FCC's ECFS	1	0	4	6	2

Table 18

The Total Number of the Actors/Institutions Cluster References Found in all Five Datasets

Cluster Reference	2017 Order	ECFS Attachment Files	YouTube Videos	Law Documents	Mainstream Media News
(3.1) BIAS; Telecomms; ISPs	40	23	21	53	101
(3.10) FTC Members	0	3	0	4	9
(3.11) State Bills	8	9	5	43	70
(3.2) Lawyers; Legal Experts	1	11	8	47	61
(3.3) Economists	6	5	3	5	8
(3.4) Investigative or News Journalists	5	1	4	15	199
(3.5) Academics; Scholars	0	17	4	18	33
(3.6) Tech Industry Leaders; Tech Entrepreneurs	5	26	15	24	92
(3.7) Popular Commentators	2	2	8	1	6
(3.8) Politicians	3	3	14	59	131
(3.9) FCC Members	51	12	17	30	74

Table 19 shows the total numbers of cluster references found across all *advocate*, *opponent*, and *actor/institution* classes and how many datasets referenced these clusters. The clusters are ordered by highest number of cluster references to lowest. For Tables 16, 17, 18, and 19, by “cluster references,” I am referring to the number of total files referenced within each

cluster. For instance, in Table 19, (2.7) *Creating New Laws* had 108 files that were referenced. However, this number is a bit deceiving. One reference could include multiple references from different sources within one database. By this I mean that the 10th reference in the Mainstream Media News database in (2.7) has two different mainstream media news articles written that were categorized as (2.7). The two sources are categorized as one reference because 100 sources (news articles) were scraped and saved as one file (PDF). So, that one PDF (saved as “fff” by me) represents one reference, even though it has 100 mainstream media news articles comprised within (two of which were chosen for analysis). The procedures to arrive at this result in NVivo are detailed in Table D6 in Appendix D.

Table 19

The Total Numbers of Cluster References Found in the Advocates, Opponents, and Actors/Institutions Classes

Cluster Reference	Number of Cluster References	Number of Datasets Referenced
(3.1) BIAS; Telecomms; ISPs	238	5
(3.4) Investigative or News Journalists	224	5
(3.8) Politicians	210	5
(1.1) State Gov Oversight	195	5
(3.9) FCC Members	184	5
(3.6) Tech Industry Leaders; Tech Entrepreneurs	162	5
(1.13) Current Legal Proceedings	158	4
(1.7) Creating New Laws	153	4
(2.1) State Gov Oversight	153	5
(3.11) State Bills	135	5
(3.2) Lawyers; Legal Experts	128	5
(1.6.2) State	109	4
(2.7) Creating New Laws	108	5
(2.14) Titles I and II	94	5
(2.8) Relying on Existing Laws	87	5
(1.3) Paid Prioritization	86	4
(1.6.1) Federal	79	4
(1.12) Openness and Transparency	78	5
(1.15) Throttling	77	3
(2.13) Current Legal Proceedings	77	4
(1.2) Blocking	72	4
(3.5) Academics; Scholars	72	4

(1.8) Relying on Existing Laws	71	5
(1.14) Titles I and II	67	4
(2.6.1) Federal	61	5
(1.11) Explaining with Analogies	59	5
(2.6.2) State	58	5
(2.17) Market Competition	53	5
(2.5) Fin or Infra Investments	53	5
(1.16) FTC	50	4
(1.5) Fin or Infra Investments	50	5
(2.16) FTC	49	5
(1.17) Market Competition	48	5
(1.9) FCC's ECFS	46	4
(1.10) Digital Divide	44	5
(2.3) Paid Prioritization	42	5
(1.4) Attacking Political Parties	40	4
(2.4) Attacking Political Parties	39	4
(1.6.3) Municipal; County	38	4
(2.15) Throttling	37	5
(1.20) Discrimination	35	4
(2.2) Blocking	35	5
(1.18) Free Speech	31	4
(2.11) Explaining with Analogies	29	5
(2.12) Openness and Transparency	29	5
(2.6.3) Municipal; County	28	5
(3.3) Economists	27	5
(3.7) Popular Commentators	19	5
(3.10) FTC Members	16	3
(2.10) Digital Divide	13	4
(2.9) FCC's ECFS	13	4
(1.19) Walled Garden	10	3
(2.20) Discrimination	9	3
(2.18) Free Speech	8	3
(2.21) 5G	5	3
(1.21) 5G	2	2
(2.19) Walled Garden	1	1

Upon closer inspection of Table 19, the top five most frequently cited *actor/institution* clusters were *BIAS; Telecomms; ISPs, Investigative or News Journalists, Politicians, FCC Members*, and *Tech Industry Leaders; Tech Entrepreneurs*. The technology and politics themes were dominant in the sense that many passages were drawn from these actors/institutions. In addition, the top five most frequently cited *advocate* and/or *opponent* clusters were *(1.1) State Gov Oversight*,

(1.13) *Current Legal Proceedings*, (1.7) *Creating New Laws*, (2.1) *State Gov Oversight*, and (1.6.2) *State*. Four out of five *advocate* clusters came through. The law and regulation and politics themes were therefore dominant in the sense that many narratives were drawn from these (mostly) *advocate* and *opponent* debate topics.

The second purpose for the matrix categorization query function was to display text results for all possible connections between all *advocate* clusters, all *opponent* clusters, all *advocate* and *actor/institution* clusters, and all *opponent* and *actor/institution* clusters. By “text results,” I am referring to the passages that were included in every class’s two-cluster comparisons. The textual result for comparing clusters (e.g., 1.1 and 1.6.1) generated multiple passages under all, some, or none of the datasets formatted in one file. If a passage from a *The New York Times* article was categorized as 1.1 and 1.6.1, that passage would be included in the mainstream media news dataset portion of the 1.1 vs 1.6.1 text result. The procedures to arrive at these results in NVivo are detailed in Table D6 in Appendix D. The completion of the results were verified by highlighting the comparisons in a chart (see Table 20).

Table 20

Two-Cluster Comparisons Across the Advocates, Opponents, and Actors/Institutions Classes

1.1	1.2 / 1.3 / 1.4 / 1.5 / 1.6.1 / 1.6.2 / 1.6.3 / 1.7 / 1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.2	1.3 / 1.4 / 1.5 / 1.6.1 / 1.6.2 / 1.6.3 / 1.7 / 1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.3	1.4 / 1.5 / 1.6.1 / 1.6.2 / 1.6.3 / 1.7 / 1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.4	1.5 / 1.6.1 / 1.6.2 / 1.6.3 / 1.7 / 1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.5	1.6.1 / 1.6.2 / 1.6.3 / 1.7 / 1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.6.1	1.6.2 / 1.6.3 / 1.7 / 1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.6.2	1.6.3 / 1.7 / 1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.6.3	1.7 / 1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.7	1.8 / 1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.8	1.9 / 1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.9	1.10 / 1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.10	1.11 / 1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.11	1.12 / 1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.12	1.13 / 1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.13	1.14 / 1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.14	1.15 / 1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.15	1.16 / 1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.16	1.17 / 1.18 / 1.19 / 1.20 / 1.21
1.17	1.18 / 1.19 / 1.20 / 1.21
1.18	1.19 / 1.20 / 1.21
1.19	1.20 / 1.21
1.20	1.21
2.1	2.2 / 2.3 / 2.4 / 2.5 / 2.6.1 / 2.6.2 / 2.6.3 / 2.7 / 2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21

2.2	2.3 / 2.4 / 2.5 / 2.6.1 / 2.6.2 / 2.6.3 / 2.7 / 2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.3	2.4 / 2.5 / 2.6.1 / 2.6.2 / 2.6.3 / 2.7 / 2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.4	2.5 / 2.6.1 / 2.6.2 / 2.6.3 / 2.7 / 2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.5	2.6.1 / 2.6.2 / 2.6.3 / 2.7 / 2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.6.1	2.6.2 / 2.6.3 / 2.7 / 2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.6.2	2.6.3 / 2.7 / 2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.6.3	2.7 / 2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.7	2.8 / 2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.8	2.9 / 2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.9	2.10 / 2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.10	2.11 / 2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.11	2.12 / 2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.12	2.13 / 2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.13	2.14 / 2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.14	2.15 / 2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.15	2.16 / 2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.16	2.17 / 2.18 / 2.19 / 2.20 / 2.21	
2.17	2.18 / 2.19 / 2.20 / 2.21	
2.18	2.19 / 2.20 / 2.21	
2.19	2.20 / 2.21	
2.20	2.21	
1.1	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.1 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.2	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.2 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.3	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.3 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.4	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.4 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.5	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.5 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.6.1	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.6.1 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.6.2	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.6.2 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.6.3	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.6.3 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.7	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.7 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.8	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.8 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.9	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.9 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.10	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.10 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.11	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.11 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.12	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.12 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.13	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.13 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.14	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.14 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.15	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.15 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.16	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.16 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.17	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.17 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.18	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.18 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.19	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.19 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.20	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.20 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
1.21	3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11	2.21 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11

Note. The teal highlight colour indicates that at least one or more matching comparisons between the two clusters occurred (e.g., 2.21 vs 3.1). The pink highlight colour indicates that no matching comparisons between the two clusters occurred (e.g., 2.21 vs 3.3).

Table 20 should be read with the bold number first (from the far left) and the unbolded number second (along the same line to the right). The teal highlights represented at least one or more matching comparisons between the two clusters; for instance, 1.1 vs 1.2, 2.1 vs 2.2, 1.1 vs 3.1, and 2.1 vs 3.1. The pink highlights represented no matching comparisons between the two clusters; for instance, 1.2 vs 1.21, 2.1 vs 2.19, 1.4 vs 3.3, and 2.2 vs 3.7. There were four major cluster comparisons altogether. There were no cluster comparisons between *advocates* and

opponents (e.g., 1.1 vs 2.1) because none of the passages that were highlighted as *advocates* intersected with *opponents* and vice versa. The same passage, the same sentence, the same word or phrase were highlighted as either *advocate* clusters or *opponent* clusters. Also, there were no cluster comparisons between *actors/institutions* (e.g., 3.1 vs 3.2) because I only wished to know who was talking, or what institution was being represented from that speaker, in an advocating or oppositional light. Once it was confirmed that a representative from Mozilla was talking ((3.6) *Tech Industry Leaders; Tech Entrepreneurs*), the passage was ready to be categorized further with multiple *advocate* or *opponent* clusters.

In Table 20, the pink highlights (i.e., the zero matching comparisons between clusters) represent the silence of clusters in the dissertation's findings. There were 22 silences for net neutrality advocates, 27 silences for net neutrality opponents, 20 silences for net neutrality advocates vs actors/institutions, and 33 silences for net neutrality opponents vs actors/institutions. The following two-cluster comparisons appeared more than five times throughout the results: 5G (34), *Walled Garden* (31), *Jurisdiction* (i.e., all three levels) (14), *Popular Commentators* (14), *FTC Members* (14), *Economists* (11), *Attacking Political Parties* (9), *FCC's ECFS* (9), *Free Speech* (8), *Discrimination* (8), and *Digital Divide* (7). 5G was the top silent cluster comparison. This could be because 5G did not officially rollout in the U.S. by telecommunication carriers until the first quarter of 2019. And even then, area coverage was not widely available, especially outside dense urban centres.

I was surprised to learn that the second highest silent cluster comparison was *Walled Garden*. I expected more walled garden cluster comparison matches to other clusters. The idea of the walled garden had been around long before the commercial Internet to portray companies restricting access to content, applications, platforms, services, and/or devices to partners and

users. Net neutrality opponents remained silent 27 times compared to the four times of net neutrality advocates for the *Walled Garden* cluster comparison. I was further taken aback to learn that some of the cluster comparisons that were attached to *Walled Garden* included *Fin or Infra Investments*, *Economists*, *Market Competition*, *Openness and Transparency*, and *BIAS; Telecomms; ISPs*. I would have expected these cluster comparisons to be linked to *Walled Garden* as affirmative matches in teal, not pink. Walled gardens had become a lucrative way for ISPs (Internet Service Providers) to freeze users in their ecosystem of products and services for years to come. The walled garden locked users into subscribing to products and services. Blocking, throttling, and prioritizing packets were foundation blocks that led to an empire filled with paying users. And this empire was surrounded by a walled garden that nudged users towards favouring its goods and services and showing apathy towards and avoiding altogether competitors' goods and services. Users gave implied consent when choosing ISPs' goods and services, but was this choice really one based on users making informed decisions about choosing goods and services?

As one final snapshot of the entire project for the matrix categorization queries results, the numbers of references for the two-cluster comparisons and the number of datasets referenced are portrayed in Appendix E. The procedures to arrive at these results in NVivo are detailed in Table D6 in Appendix D. As well, the numbers of dataset references for the two-cluster comparisons are in Appendix F. The procedures to arrive at these results in NVivo are detailed in Table D6 in Appendix D.

The matrix categorization query function was integral to the findings since the two-cluster comparison results were needed for the narrative analysis. Comparing the intersection of different clusters made focussing on a specific idea, concept, issue, or argument easier than

comparing a class or cluster in its entirety. Thus, to compare the debatable clusters (e.g., 1.10 vs 3.8 and 2.10 vs 3.8) by pitting net neutrality advocates versus opponents was streamlined by the matrix categorization query function. Additionally, the query function produced patterns to see how matching comparisons between clusters (Table 20) either existed or ceased to exist. Before diving into the thematization step of the content analysis, I will briefly assess how the data was rendered reliable through intra-coding procedures.

2.3.4 – Intra-Coder Reliability & Results

The codebook was finalized early on in reading and highlighting the data. My categorizations of the 500-pages of textual passages may come under question though. What if I created a new cluster under the *advocates* class after reading a passage on page 20? In this scenario, the previous 19-pages were re-read to see if any other passages could be categorized under this new cluster. This ensured that data were diligently categorized and not missed under classes and clusters to the best of my abilities. It was quite rare that I highlighted (categorized) passages from before when a cluster was first created.

Is the codebook stable enough so that consistency exists between both times a researcher re-categorizes their data? Moreover, to what extent can a researcher confidently say their research procedures are reliable? Results should be reproducible in referencing the codebook. Stability and consistency meant that a process to achieve relatively similar results over time remained unchanged. Reproducibility (replicability) and reliability meant that different researchers or different versions of researchers at different points of time (i.e., past and present versions of myself in this case) could replicate research procedures to arrive at similar results (Krippendorff, 2004, p. 215). Codified data was thus reliable when the research measurements and step-by-step procedures yielded the same results under different circumstances, such as time.

A consensus of how data was coded was reached between users at different times (Krippendorff, 2013, p. 267). The process to code data should remain unmodified, rendering the data replicable between users under test-standard conditions (pp. 270–271). This section discusses how intra-coder reliability was achieved to ensure stability and replicability in categorizing the data.

I was the lone data collector, data coder, and data categorization organizer. Steps were taken to ensure that the data categorized was reliable across two time periods by sampling data to calculate a percentage agreement and a Kappa coefficient. Intra-coder reliability was essentially bias confirmation in that I was confirming that the first round of categorization paralleled the results of the second round. Intra-subjective interpretations in the categorization schema were personally developed meanings of textual passages. Guest et al. (2012, p. 92) recommend a gap of time between the two rounds to approach the datasets again with a new perspective. If re-interpreting the categorization of data perfectly matched the original categorization, this did not mean that the categorizations were accurate. Since the data categorization classes and clusters were inductively, organically created by reading textual passages line-by-line, there was no testable yielded result of categorizations to aim for and achieve.

The coding comparison query function in NVivo allowed for a percentage agreement and a Kappa coefficient (Cohen's Kappa) to be calculated to compare the agreement and disagreement rates and through chance of categorization done initially and secondarily. These two measures were the test-standard conditions that spoke to the consistency of the data categorization process and the replicability of results remaining relatively unchanged between two users across time. The percentage agreement was the number of times the categorizations between users were in agreement, divided by the total number of categorization comparisons. The percentage agreement indicated consistency between two users on whether and how the data

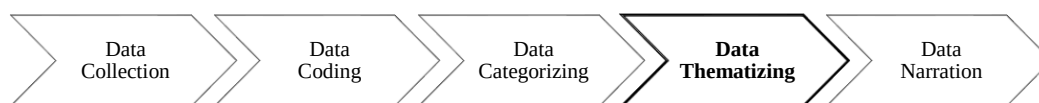
was categorized the same. And the Kappa coefficient measured the amount of agreement that could occur through chance (NVivo, n.d.-b). The way the Kappa coefficient was calculated was based on each node and source, and is detailed in Table D7 in Appendix D. Appendix G details the Kappa coefficient ratings and how a 25% sampling of the initial data classes and clusters were re-categorized. Tables G1–G5 in Appendix G present the intra-coding reliability results for the five datasets.

The 10 instances of Kappa coefficients in the 0.40–0.75 “fair to good agreement” range did not warrant concern about the rate of reliability. 285 out of 295 classes and clusters were over the 0.75 “excellent agreement” range. This meant that 96.61% of the data were categorized similarly at two different points of time. Thus, the data categorization process remained stable over time as the data was replicable between users under the two test-standard conditions. The ability to categorize the data using the class and cluster codebook as a reference can confidently be replicated by another user group.

2.3.5 – Organizing the Socio-Legal Themes

Figure 11

The Five Evolutionary Steps to a Content Analysis: Data Thematizing



- Thematizing data helps to organize the explanation of how actions produce effects, where these effects are constructed and represented by the categorized ideas, concepts, issues, and arguments
- The four themes of economics, technology, politics, and law and regulation have become amplified through the *advocate*, *opponent*, and *actor/institution* classes and their clusters
- I manually read, sorted, and labelled clusters by respective themes. I transferred all single-cluster and two-cluster comparisons according to the respective themes rooted in net neutrality scholarship
- *Latent content* derives from the human researcher who can recognize and elaborate on the connective tissues actors and institutions debate
- *Manifest content* represents the black and white texts that can be included as specific evidence for making an argument

- All single-cluster and two-cluster comparison passage results are exported from NVivo as files into a folder. Each cluster is manually sorted into their respective themes based on the organization of the literature review, with some clusters appearing in more than one theme

After establishing how the data was collected and organized, coded, and categorized, this section will discuss how the four socio-legal narrative themes (economics, technology, politics, and law and regulation) were organized. As discussed in Chapter 1, the thematizing of data is a higher-level series of interpretations that help actors “locate, perceive, identify, and label” events and arguments (Goffman, 1974, p. 21). Thematizing data helps to organize the later explanation of how actions produce effects and where these effects are constructed and represented by the categorized ideas, concepts, issues, and arguments. The four themes of economics, technology, politics, and law and regulation have become amplified in the net neutrality debates. The four themes have become amplified through the advocate, opponent, and actor/institution classes and their clusters. The classes and clusters contain “issues, events, or beliefs” that reflect a “synecdoche” where parts of the theme come to represent the whole theme (Benford & Snow, 2000, p. 623). The socio-legal themes that emerge across the net neutrality debates are the result of the data collection, coding, and categorization and assessment by the researcher on patterns in the data (Goodrick & Rogers, 2015, p. 564). Thus, themes are the highest level of abstraction before the author narrates. This level of abstraction has been mapped by the net neutrality scholarship over years of debate. As researcher, I manually read, sorted, and labelled clusters by respective themes. I transferred all single-cluster and two-cluster comparisons according to the respective themes rooted in net neutrality scholarship.

As explained in Chapter 1, the four themes largely stemmed from Powers and Jablonski’s (2015, p. 590) examination of political state government efforts to control ICTs (information and communications technologies) through laws and regulations, social norm development, and technology innovation, and how the private industry aims to financially benefit

from the “normalization of [I]nternet-freedom ideologies,” such as openness or light-touch regulations. This scope of Powers and Jablonski’s work is where I drew influence to organize the socio-legal themes of economics, technology, politics, and laws and regulations. Beyond Powers and Jablonski’s scope, the culmination of the scholarship in Chapter 1 points to these four themes as arteries to the net neutrality debates.

As Krippendorff (2013, p. 360) denotes, content analysts should be concerned about what can be identified and critically explored in the texts when texts do not plainly speak of such narrative patterns. This was commonly understood as *latent content*. *Latent content* derives from the human researcher who can recognize and elaborate on the connective tissues actors and institutions debate. According to Goodrick and Rogers (2015, p. 578), researchers may scour the data to recognize choice of words, the ways in which arguments are set up and delivered, and even emotive responses expressed through body language or hostile language. *Manifest content* represents the black and white texts that can be included as specific evidence for making an argument. The quotable quotes or the testimony provided by experts and influencers allows the researcher to reference debates within the themes. Contextualizing the latent and manifest content together allows for broad assertions to be confidently made based on empirical data. The research tests the evidentiary warrant for the assertion by reviewing confirming and disconfirming evidence across thematic results (p. 578).

All single-cluster (e.g., 1.1) and two-cluster comparison (1.1 vs 1.2) passage results were exported from NVivo as files into a folder. I manually sorted each cluster into their respective themes based on the organization of the literature review, as depicted in Table 21, with some clusters appearing in more than one theme; for instance, 1.11, 2.11, and 3.5 appeared in all four themes. Some clusters were clearly attributed under one theme (e.g., 1.21, 2.21, 3.1, and 3.6

under technology). Other clusters needed to be discriminated into one theme or multiple themes if the passages could be highlighted under more than one theme. One example was how the law and regulation and politics themes saw some overlaps in clusters like *State Gov Oversight* when citing procedural laws over ISPs (Internet Service Providers) or discussing regulation as a matter of governance for protecting consumers. Or how the economics and technology themes saw some overlaps in clusters like *Paid Prioritization* since debates could reference monthly Internet payment plan tiers or the foundations of prioritizing data packets.

From here, it was a simple transfer of all single-cluster and two-cluster comparisons according to respective themes. In total, this created 224 files in the economics theme, 293 files in the technology theme, 515 files in the politics theme, and 467 files in the law and regulation theme. At the end of organizing all clusters, the files ranged from one single-spaced page to 144 single-spaced pages. Table 21 depicts this thematic organization of clusters.

Table 21

All Clusters Organized by Theme

Theme	Clusters
Economics	1.3 / 1.5 / 1.11 / 1.16 / 1.17 2.3 / 2.5 / 2.11 / 2.16 / 2.17 3.3 / 3.5 / 3.10
Technology	1.2 / 1.3 / 1.11 / 1.12 / 1.15 / 1.19 / 1.20 / 1.21 2.2 / 2.3 / 2.11 / 2.12 / 2.15 / 2.19 / 2.20 / 2.21 3.1 / 3.5 / 3.6
Politics	1.1 / 1.4 / 1.6.1 / 1.6.2 / 1.6.3 / 1.9 / 1.10 / 1.11 / 1.12 / 1.16 / 1.18 / 1.20 2.1 / 2.4 / 2.6.1 / 2.6.2 / 2.6.3 / 2.9 / 2.10 / 2.11 / 2.12 / 2.16 / 2.18 / 2.20 3.4 / 3.5 / 3.7 / 3.8 / 3.9 / 3.10 / 3.11
Law & Regulation	1.1 / 1.6.1 / 1.6.2 / 1.6.3 / 1.7 / 1.8 / 1.11 / 1.13 / 1.14 / 1.16 2.1 / 2.6.1 / 2.6.2 / 2.6.3 / 2.7 / 2.8 / 2.11 / 2.13 / 2.14 / 2.16 3.2 / 3.5 / 3.11
Overlapping Themes	1.1 + 2.1 = Law & Regulation & Politics (2x) 1.3 + 2.3 = Economics & Technology (2x) 1.6.1 + 2.6.1 = Law & Regulation & Politics (2x) 1.6.2 + 2.6.2 = Law & Regulation & Politics (2x) 1.6.3 + 2.6.3 = Law & Regulation & Politics (2x) 1.11 + 2.11 = Law & Regulation, Politics, Economics, & Technology (4x) 1.12 + 2.12 = Technology & Politics (2x) 1.16 + 2.16 = Law & Regulation, Economics, & Politics (3x) 1.20 + 2.20 = Technology & Politics (2x) 3.5 = Law & Regulation, Politics, Economics, & Technology (4x)

Note. The clusters organized in each of the four themes, along with overlaps of the same clusters organized between themes (e.g., 1.1 and 2.1 were organized in both the law and regulation and politics themes), are depicted here.

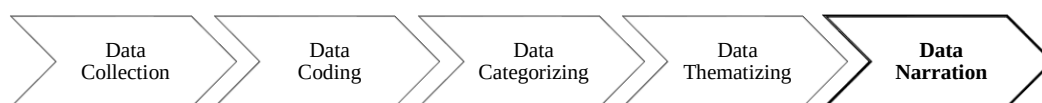
Even though there were 57 clusters in total, some may have been organized into more than one theme. Including the clusters that overlapped in the four themes, 31 clusters appeared in politics, 23 in law, 19 in technology, and 13 in economics. Out of the 86 clusters in total across the four themes, the politics theme captured 36.05% of clusters, law captured 26.74%, technology captured 22.09%, and economics captured 15.12%. Another noteworthy result from the clusters organized by theme was that economics, technology, and law had three actors/institutions clusters each, while politics had seven. Also, politics overlapped with another one, two, or three themes 11/12 times. Clearly, politics was the most dominant theme out of the four as most clusters gravitated towards it.

Framing the categorized passages by theme was the best way to compare and contrast similar evidentiary arguments in the debates instead of separating passages by dataset. The datasets and literature review informed the themes. And whether the narratives were in order or not was irrelevant, so long as all datasets that discussed the same incident could be reasonably organized by class and cluster. Pulling narrative threads through each relevant theme to understand the debates was crucial.

2.3.6 – Data Narration

Figure 12

The Five Evolutionary Steps to a Content Analysis: Data Narration



- Manually highlighting full and parts of passages in each of the 1,499 total files under the themes (economics, technology, politics, and law and regulation) is the final step in prepping for the narrative analysis
- Data narration is the written result of the previous four steps and portrays how actors and institutions construct and represent ideas, concepts, issues, and arguments rooted under the four themes
- Data narration is an art since human subjectivity and interpretation is paired with rigorous procedures in measuring social phenomena
- In dominant and counter narratives, attention is paid to discursive strategies to convince the audience of the arguments. The dominant and counter narratives will speak to the three research questions
- The socio-legal narratives are born out of the data collected, coded, and categorized found in the four themes

“Data Narration” is the fifth and final step in the qualitative content analysis. This final step is not a formal “step” in the sense that there are no regimented procedures to be carried out from mapping to expressing through writing socio-legal narratives. At the same time, this final step is a “step” in the sense that it completes the journey of the qualitative content analysis from data collection and organization strategies, data coding, data categorization, and data thematization. Data narration is the written result of the previous four steps and portrays how actors and institutions construct and represent ideas, concepts, issues, and arguments rooted under the four themes.

Data narration is an art. Data in and of itself is an art that emerges from the researcher’s pretense of values, desires, and relations (Kitchin, 2021, p. 5). Human subjectivity and interpretation is paired with rigorous procedures in measuring social phenomena. Data is socially constructed and reflects the biases of those who collect and use data-collecting technologies. As discussed in Chapter 1, the narrative is written into a linear plot that points to questions, implications, and conclusions, whereas stories are about the way we speak about events (Brooks, 2003, p. 73; p. 95). The narrative refers to the production and reception of stories, whereas stories refer to communicating events whose plots are intended to bring an issue to realization (Baron & Epstein, 1997, p. 147). I will write about how actors and institutions construct, receive, and react to stories to influence change (Brooks, 2002, p. 3). More specifically, I will clarify the

actor or institution communicating or being referred to, and the reactions by actors and institutions to what adversaries and colleagues argue. The dominant and counter narratives to both sides of the debate will provide insight into socio-legal discourses across the four themes. Particular attention will be paid to discursive strategies like analogies, historical rhetoric, and the symbolism and images of rights (see Shaw, 2013, p. 122) to convince the audience of their arguments and that any propositions should be followed.

The dominant and counter narratives will speak to: (1) how net neutrality advocates and opponents frame their discursive strategies; (2) in what ways formal law and regulation frameworks (i.e., empirical and normative – ‘according to law and regulation as they are and ought to be’) and non-normative frameworks (i.e., technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web; and (3) how Internet governance reflects U.S. norms, values, and rights in ways that support the expansion of U.S. economic power.

As explained in section 2.3.2.2, the matrix categorization query function helped organize the two-cluster comparison results required for the narrative analysis. The matrix categorization query function positioned the debatable clusters by dividing net neutrality advocates from opponents. As well, the query function produced patterns to see how matching comparisons between clusters either existed or ceased to exist. Manually highlighting full and parts of passages in each of the 1,499 total files under the themes was the final step in prepping for the narrative analysis. By “parts of passages,” I am referring to the fact that there may only be one sentence in an entire passage that may be relevant for *Paid Prioritization*, but I needed to understand the context of what was being written. The highlights included relevant written parts of the passage above and below the caption of what was considered significant. To include the

context above and below was to capture the nature of the words being conveyed. It would have been difficult to include a one sentence caption of information from an entire passage when trying to string together a narrative.

Relevant words or phrases, sentences, paragraphs, and passages were attributed a green highlight to indicate that I may include this (or part of the) passage in the narrative analysis write-up. The exact same passages were highlighted over and over again across different files under the same theme and across themes to ensure consistency and to see the cluster type being generated. Highlighting a (or part of a) passage red indicated that I officially included it in the narrative analysis write-up. Keeping the (or parts of the) passages in the respective file and theme kept a trace of the cluster type and theme. As alluded to earlier, the class counterpart file (e.g., 1.15 and 2.15 or any other cluster that discussed the relevant idea, concept, issue, or argument) was opened simultaneously to see how debates shaped comparatively and/or contrastingly to one another. Some collections of clusters (e.g., all *State Bills*) may have had details that needed to be expounded, but generally referred to the same sentiments.

From the data collected, coded, and categorized, the high-level themes of economics, technology, politics, and law and regulation will comprise the following socio-legal narratives. The economics theme examines defending the role of the Web in the Internet market economy, infrastructure investments, paid prioritization, and antitrust and consumer protection laws. The technology theme examines state jurisdiction and interconnectivity, data packets and walled gardens, and the future of 5G and its reliance on paid prioritization. The politics theme examines the Verizon-Mendocino Complex Fire tragedy, political debating between Democratic and Republican Party members and social justice talking points, the 2017 Order hearing and CALinnovates' influence on shaping the order, two negative reactions and two positive defences

to repealing net neutrality, and the FCC's ECFS (Electronic Comment Filing System) fraudulent comments debacle. Lastly, the law and regulation theme will examine FOIA (Freedom of Information Act) legal challenges, Title I and II classifications, the FTC as a regulatory authority, and interstate versus intrastate jurisdiction.

The conclusion at the end of every findings chapter will provide a summary of the findings and the meaning and importance of the narrative threads explored. The summaries will distil the rich content of the chapters into a manageable set of takeaways for the reader. The end-of-chapter analyses will set up the analysis in Chapter 7. Chapter 7 will be something of a summary of the summaries and will draw greater analytical conclusions that address the research questions. The end-of-chapter summaries and analyses will be framed in terms of what the socio-legal narratives discussed mean for addressing the three research questions. Thus, it is not simply a matter of integrating literature reviews throughout the dissertation to frame the dissertation conceptually and empirically. It is also about developing my argument logically through analysis throughout the dissertation, including within each of the empirical chapters, and then pulling together analysis of all the empirical chapters to demonstrate the importance of my findings. The dissertation will make clear my contribution theoretically and empirically, especially in Chapter 8, and highlight the larger socio-legal implications of the U.S. net neutrality debate. As a way to conclude Chapter 2, a few drawbacks and critiques will be considered surrounding the foundations of the methodology and the nature of the research procedures used.

2.4 – Drawbacks & Critiques of the Methodology & Research Procedures Employed

This section is largely dedicated to discussing the drawbacks and critiques around some of the research methodology and research procedure choices. The first two limitations include missing or glossing over the complexity of commentary and its context and how the data would

not mirror social realities from my interpretations of the subjects' interpretations of the net neutrality debates. *Descriptive validity* is discussed along with differentiating *validity* from *reliability*. The third and fourth limitations are the limited understanding of actors and institutions' background information and how experts and influencers are defined. The fifth limitation is the fact that an inter-coding approach was not used, the short time lapse and biases built into the intra-coding approach used, and NVivo's coding limitations.

Section 2.4 also discusses the challenges of combining experts and influencers together into classes and clusters and how all discourses in the five datasets were subject to bias. I also discuss the difficulties in measuring the impact of the databases in terms of influence in decision-making processes and outcomes for how net neutrality principles were to be upheld or repealed. I then take a step back to reiterate how I use discourses to understand how net neutrality advocates and opponents convey knowledge through direct or related responses to audience receivers through a qualitative content analysis via quoted materials. The section concludes by acknowledging nine types of personal research biases I held.

One limitation of the content analysis is brought up by Fürsich (2009, p. 248), who argues that drawing out themes may miss the complexity of significant commentary and its context since the content itself is being examined at face value. Content must not be accepted in a superficial way. Checking the authenticity of claims and the texts required an extra step to verify the durability of claims and the texts that housed these claims. Moreover, coding and categorizing fragments of the data into "nodes" in NVivo may divest meaning from its context. The fear of watering-down ideas, concepts, issues, and arguments into a banality of themes was in the back of my mind throughout the coding, categorization, thematization, and narration stages. Even sampling from all data skewed the results that could have been explored. The

results were biased by purposely choosing particular databases over others; admittedly, this was an unjustified research decision. Narrowing the manifest meanings available from these data collection, coding, categorization, thematization, and narration limitations affected the latent meanings. That which did not exist in the manifest form could not jolt the researcher to think beyond the black and white text. Latent content was subjective and subject to the researcher's voice, but existed as long as a baseline of manifest text could be referenced. Suffice to say, the aim to hit the target of understanding the complexity of significant commentary and its context was found in narrating eclectic, yet detailed, illustrations across five mediums.

Another limitation entrenched in the content analysis was that the data would never mirror social realities from my interpretations of the subjects' interpretations of the net neutrality debates. Even though my file folders and NVivo files housed thousands of texts to provide a relatively coherent organization strategy and to help with better accuracy around sampling, sentiments and actions communicated by actors and institutions would never be a true collective representation of those concerned with net neutrality. What would be the necessary methodology and research procedures to take to achieve a "true collective representation?" One could argue that there was no inherent truth to be revealed by collecting, processing, and analyzing texts. There was no endgame to exploring what opposing experts and influencers had to say on a matter in the public light. All researchers can do in a content analysis is provide a clearly written narrative. That narrative should attempt to make sense of the debate by threading expository examples under expository themes.

Reality is entropic. Reality is not pleasantly placed into themes. Yet, themes contribute to how I understand law and regulation's contributions to the net neutrality debates. Realities can overlap and intersect with other realities (Law, 2004, p. 61). Marres (2017, p. 36) considers

whether the Web can embody a pre-existing social reality. Can Web-scraped texts help frame some semblance of negentropy? This begs the question of validity. How, and to what extent, can one say the five datasets relate to the reality, and hence generalizability, of net neutrality ideas, concepts, issues, and arguments? Do the datasets capture the essence of the 2017–2020 debates? And do the datasets capture the essence of law and regulation? I frequently second-guessed whether a word or phrase was relatable to the essence of law and regulation. Although obtaining an objective, identifiable reality is debatable through qualitative research methods, an attempt to provide descriptive validity to this dissertation’s critical assessment of data is pertinent. Johnson (1997, pp. 284–285) notes that *descriptive validity* involves a degree of factual accuracy in recounting what has been discussed and expressed by the original source within the researcher’s write-up. Describing the key events, the evidence being presented by actors and institutions, the place, time, and date of where this discussion is taking place or what is being referenced, and the behaviours and expressions of actors themselves are key to developing descriptive validity.

According to Krippendorff (2009, p. 356), *validity* refers to “measurements, research results, or theories ... corroborated by ... evidence” that “concerns truth.” Making comparative analyses across time, mediums, and actors and institutions enables a foundation to be built to reliably assess perceptions. But *reliability* and *validity* should not be conflated. Reliability is rooted in results duplicity, whereas validity is rooted in ensuring research is “borne out in fact” (Krippendorff, 2004, p. 212). To the extent that the research results are valid, readers should accept disputes and outcomes as truthful insofar as descriptions of phenomena have been accurately recorded and portrayed. Inferences drawn by the researcher should “withstand the test of independently available evidence, of new observations, of competing ... interpretations, or of being able to inform successful actions” (p. 313).

A more specific limitation to the research design concerns the write-up stage. I only cite actors and institutions in that freeze-frame period of 2017–2020. Background information is not detailed for every new actor or institution brought up in the analysis. Most actors and institutions are described in the moment, whether it be their roles or affiliations to how their decisions and discussion points evolved across a three-year period. This may place actors and institutions in a myopic view of how they arrived at their judgments. A response to this critique is that all research must have a cut-off date, and actors and institutions, events, objects, inventions, political climates, new laws, phenomena in that range are fair game for analysis. Hopefully, the select actors and institutions' backgrounds that are detailed beyond the range will be sufficient.

Furthermore, some researchers may take issue with the way in which experts and influencers were defined. Verifying title status, roles, and responsibilities was a simple process. Assessing whether and how expert and influencers' arguments fit into one or more of the four themes was a simple recognition. What was not simple was evaluating to what extent experts and influencers were listened to and abided by because of the prominence of power their decisions had on society. Just because a video on YouTube had a high views count and a high "I like this" number did not mean most actors who watched the video were completely swayed by the arguments made. The video may have received a high "I like this" number for its comedic value even though its host influencer made one or two fairly informative contributions to explaining the concept of *Walled Gardens*. How do researchers evaluate the power videos had on actors' perceptions of the debates? Evaluating the power attributed by the sheer scarcity in numbers of title status, roles, and responsibilities was easier to acknowledge. But again, assessing whether to include an idea, concept, issue, or argument from an expert or influencer by evaluating the power generated by the text itself was admittedly difficult. If an actor/institution made a conscionable

effort to contribute by substantiating real ideas, concepts, issues, and arguments rooted in numbers and/or facts in one or more of the four themes towards making society a better place in myriad respects (financially, technologically, socially, fairly and equally, democratically), they were an expert and influencer.

Acquiring specialized skills or mastering knowledge in a defined field of study and practice should not be taken as a universal set of conditions. Other actors and institutions around the world may be considered experts and influencers in their own rights from their own regions, from the academic institutions they hailed from, from the contributions they made. Experts and influencers may be discredited or may never be heard simply because of where they live, their academic training, their small degree of written or informed opinions on matters, the language they speak, the network of other experts or influencers who may disagree with them or may not respect them. To not include certain experts and influencers who may or may not have cropped up in the Web-scraped data was not an act of targeted exclusion for personal reasons, such as their stance on the debates. Passages that spoke about the relevant significance to the essence of law and regulation in the net neutrality debates were highlighted for further analysis. For this dissertation to be feasible, there had to be conditions set, like only U.S.-produced English-written news articles could be Web-scraped.

An even broader issue around expertise was at play here: did the conversation cease to go further once an expert with a PhD entered the debate? Could a background in fin-tech private industry, public office, or entertainment accurately summarize how an expert may be influenced by what they were thinking and saying? Sometimes, experts could be wrong about subject matters and could be discredited as holding superior authoritative knowledge. But narrating the debates was not about concluding who was right and who was wrong, especially since debates

are still ongoing today. Narrating the debates is about capturing how ideas, concepts, issues, and arguments are being formulated, expressed, retracted, repeated, spoken of only once or a few times, accepted, and dismissed.

Another more specific limitation to the research design concerns the intra-coding approach. There was little time lapse between the first and second round of categorization of classes and clusters. More time between the rounds should have been given to disassociate myself from initial reactions. As well, an *inter*-coding approach could have been utilized by asking a colleague to reference my codebook and sample the NVivo results to check if my categorizations were properly attributed to the passages. This was one approach to verify the durability of the data and the reliability to reproduce categorizations. But Goodrick and Rogers (2015, p. 589) remind us that inter-coder reliability may be dismissed by critical researchers who rely on their own categorizations because it is *their* syntheses and connections of data being constructed in the write-up. Furthermore, the use of the Kappa coefficient in this dissertation, while scientific in its measurements, held a bias confirmation since *I* was confirming that *my* first round of categorizations aligned with *my* second round of categorizations. And the notion that I had a high intra-coder reliability rate did not necessarily mean that the data was deemed correct or accurate (p. 589). It meant that a second version of myself largely agreed with a past version of myself by two months. Relatedly, it would have been ideal to merge similar words and phrases together when generating the data coding schematic (i.e., the codebook). To collapse the number from 423 codes would have been more manageable. But each result in NVivo was its own result and could not be merged. This was a major limitation in NVivo that should be addressed at the software developer's level.

One of the challenges of writing a dissertation that spanned approximately three years was being able to combine a variety of experts and influencers together into classes and clusters. Even though the time of the argument was usually cited, time was irrelevant to the extent that the socio-legal narratives (i.e., clusters) were more important. That is to say, the few net neutrality advocates who discussed how walled gardens were enclosing the creative commons were woven into a narrative regardless of when and under what setting and space the arguments were made. Depending upon the circumstances that might have impacted one's arguments, the narrative could be layered with new numbers and facts. My aim was to layer as many complimentary and contrasting ideas, concepts, issues, and arguments of a given socio-legal narrative. It was my intent to give the narrative a rounded perspective from both net neutrality advocate and opponent sides, even though no direct response was given in some cases.

In Chapters 3–6, a sequential timeline of events usually pinpointed when ideas, concepts, issues, and arguments were made. Some of the texts gathered from databases and the texts saved in the databases I created were unequal. By this I mean all discourse was subject to bias. Actors and institutions who wished to express ideas, concepts, issues, and arguments through words could have chosen to emphasize, retract, gloss over, or honestly forget points. Words mattered in trying to understand how actors and institutions curated history lessons, analogies, and rights-based arguments, but all words were formulated, abridged, and shared with others in a pre-directed, chosen manner. I was not overly fixated on addressing texts as objects. The meta data surrounding how the text came into production, its time of publication, and its number of pages, lines, footnotes, and references, and grammar usage were unimportant to me. In some cases, I was concerned with a video's number of views or a report's number of iterations of published versions. In addition to some of the social cues and body language portrayed in videos, the

substance of the arguments and how the pieces fit within a given socio-legal narrative were significant.

The fact that the 2017 Order was written by a team headed by two Republican FCC commissioners and one Republican FCC chairman (appointed by Republican President Trump), and who were all net neutrality opponents, suggested bias. The net neutrality opponent FCC team drew from select sources to support arguments against regulating the Web as a public utility in favour of a light-touch regulatory framework. The two Democratic FCC commissioners, who were net neutrality advocates, provided a small degree of balance to the opposite side in their dissents. But the majority of what was written in the 2017 Order was by net neutrality opponents. Moreover, the FCC's ECFS (Electronic Comment Filing System) site was biased in the sense that the comment period was flooded with fraudulent comments. The attachment files sent by experts and influencers in their respective fields provided some semblance of comments that were truthfully submitted based on the background source checks I performed. Net neutrality advocates and opponents had the same chance of submitting their comments within the April 27, 2017 – August 30, 2017 period.

The provocative title and thumbnail on a YouTube video may have baited users to watch that video over others. Some YouTube videos had more view counts and comments than others. Thus, some videos may have appeared more frequently in YouTube's video suggestion algorithm for users, influencing the content they decided to view. All videos gathered by me came from one platform (YouTube), which was a narrow way to find videos on the net neutrality debates. There was at least a bit more variety in sources to choose from in the mainstream media news databases (i.e., Dow Jones Factiva, PressReader, and Nexis Uni). The mainstream media news databases suffered not in the quantity of articles to sample from but the few select reporting

publishers on a given online database. The online newspaper outlets were owned by parent companies that were conservative, centrist, or liberal-leaning on the political spectrum; for example, The Hill was purchased for \$130 million on August 20, 2021 by Nexstar Media Group, which merged with Tribune Media for \$4.1 billion on September 19, 2019. Nexstar Media Group recently came under scrutiny for pushing conservative bias in its news coverage. In any case, the results of written pieces were restricted to a few reporting publishers based on the licences to publish on that database (e.g., Dow Jones Factiva).

Something similar can be said for the law documents. I settled on collecting law documents from six databases (i.e., HeinOnline, Lexis Advance Quicklaw, Lexis Uni, ProQuest Congressional, Google Scholar, and U.S. Government Publishing Office) by browsing the most-frequently used U.S. law-based databases on York University's Osgoode Hall School of Law's Library website. On this site, I selected "Discover eResources" to cull through all 161 databases. The six law documents databases that I chose to search for net neutrality debates in were picked for popularity and ease of access. The popularity of access to a wide range of texts in each database and the user-friendly interface made settling on the law documents databases obvious.

It was difficult to measure the impact of the databases in terms of influence in decision-making processes and outcomes for how net neutrality principles were to be upheld or repealed. There were no performance metrics designed to assess the impact of ideas, concepts, issues, and arguments. Whether arguments were made days after the ECFS fraudulent comments debacle was first reported, one year after FOIA (Freedom of Information Act) legal challenges had been settled in court, or two years after the State of California announced its own statewide broadband access bill, the substance of numbers and facts were important to narrate. Knowledge that helped inform socio-legal narratives (e.g., attacking political parties) and the stories that were shaped

under socio-legal narratives (e.g., the documented threats to politicians' livelihood by actors now facing criminal charges) was key to the writing of this dissertation.

Discourse was represented by texts in the dissertation. Discourse can be understood as the conduit by which language is transmitted for the purpose of understanding a matter of concern, an affair, an event, a circumstance, or a given context. The textual mediums observed were written or spoken words, illustrated pictures or moving pictures, and displayed numerical graphics to an audience. Communicators tried to convince others that their perspectives were correct or believable in some fashion and justify why and how a set of strategies should be used to govern data packets and the Web. I was an active audience member who consumed texts in the form of written and spoken words and an active communicator to relay the socio-legal clusters narrated by the classes of net neutrality advocates and opponents and their affiliated actor/institution type.

The datasets represented how experts and influencers understood what knowledge they were conveying and how others were conveying knowledge. My primary role was to make sense of how net neutrality advocates and opponents were conveying knowledge through direct or related responses to audience receivers through a qualitative content analysis. By "related response," I mean how experts and influencers conveyed complimentary or contradictory arguments to compare or contrast the argument initially made by one expert or influencer within different settings and spaces, an earlier or later date, and contexts or circumstances. Even though my reading and writing of the content was highly selective, especially if the data had to be sampled, I tried to present the numbers and facts precisely how experts and influencers were conveying them.

One way to ensure the accuracy of ideas, concepts, issues, and arguments was to rely on quoted material. The quoted material could stem from a journalist's voice narrating the events or a journalist's quoted interview with an expert interviewee. I tried not to rely too heavily on paraphrasing the material; I mostly paraphrased the YouTube video content to capture the facial and bodily expressions, the description of objects such as written signs or still pictures, or the audience's reactions. The choice to rely heavily on verbatim quotes in the primary sources was grounded in maintaining the reliability of ideas, concepts, issues, and arguments. Reliability was rooted in results duplicity. While it may have been difficult to read some of the quoted material from the multiple use of ellipses or reading quotes within the quotes, the decision to maintain results duplicity stood.

In addition to mostly using verbatim cited material, researcher bias came through in the form of asking leading questions after a quote was introduced and used. I also offered brief summaries of a collection of cited material to meld ideas, concepts, issues, and arguments together into a narrative string. Furthermore, I sometimes pointed out the incoherency and flaws in reasoning net neutrality advocates and opponents discussed. Questions and criticisms did not derive from the raw data, it derived from my sensibilities in connecting to new material to be compared or contrasted. I was able to record, code, and reduce duplications of written data after defining units of data and consolidating the data into a manageable subset of units. Moreover, I had to decide whether what an expert or influencer had to say was a meaningful contribution. Many mainstream media news articles unsurprisingly reported on the same events, so only one news publisher outlet would be included in Chapters 3–6. Some arguments were off-base if journalists mentioned walled gardens in the net neutrality context in passing or provided

incomprehensible, poorly-written explanations of 5G. It was my responsibility to make inferences beyond the manifest texts.

The duplicate texts that appeared after the data was initially collected were discarded. Logistical documents were discarded, such as law documents that had a list of bill tracking numbers. These types of texts were discarded without hesitation because duplication of a source was not included in the findings nor were uninformative, non-substantive, non-debatable sources. What was not an easy decision to make was to discard every previous version of the text that came before the most recent version. I only kept the most recent draft of a text. Looking back, it may have been worthwhile to keep previous draft versions to observe edited changes, especially information that was written in one draft and deleted in the next. The deleted or altered texts could have provided insights into a given narrative.

Research bias must be raised again when discussing the categorizations generated in NVivo based on the word frequency queries and matrix categorization queries. Experts and influencers were deemed advocates if they made arguments about the net neutrality debates in an advocating light, promoted the benefits of net neutrality principles, and critiqued those who counter-argued claims that backed the repeal of net neutrality principles. Experts and influencers were deemed opponents if they made arguments about the net neutrality debates in an oppositional light, endorsed the advantages of repealing net neutrality principles, and critiqued those who counter-argued claims that reinforced net neutrality principles. I had to have some foresight into categorizing experts and influencers as net neutrality advocates and opponents, especially since most of the experts and influencers referred to themselves, in the third-person or otherwise, as net neutrality advocates or opponents. When I read and highlighted passages, I had

to know how net neutrality advocates argued and positioned themselves on a particular narrative before determining whether they were in fact advocates.

Categorizing the clusters by theme made sense to eventually compare and contrast the arguments between net neutrality advocates and opponents. What was difficult was the notion that all passages were not in chronological order. Trying to find the other piece of an argument said by another actor who could have supported what that net neutrality opponent was arguing in the moment at that same hearing on the same day was difficult. Placing related ideas, concepts, issues, and arguments together, even beyond a net neutrality opponent in who was arguing in a different context at a different hearing on a different day, was half the challenge. The other half was trying to find transitions between the blocks of ideas, concepts, issues, and arguments to hopefully create a coherent narrative. Or, sometimes, there were no direct responses made by the other side in a debate. At one point, I thought that I was picking narratives that suited the themes.

I went into the data collection phase with the themes already framed in my mind the way the broader net neutrality literature review was organized. I knew I wanted to carve out space to discuss John Oliver's two net neutrality segments and the ECFS fraudulent comments debacle that unfolded because of my initial curiosity about the post-2015 Order era. Other questions I had ruminating before I began to write was to seek out implications over the credibility of the FCC's ECFS and over how sensationalizing media news stories changed the perspective of everyday users on net neutrality. I therefore had a predetermined outlook on what I wanted to find, even though the clusters had not yet been codified and categorized nodes in NVivo. Some of the details in the narratives were unknown to me before committing to this research, such as the contradictory infrastructure investment numbers by net neutrality advocates and opponents or the nearly impossible rollout of net neutrality principles based on jurisdiction under 5G's network

slicing capabilities. Nevertheless, the headline stories that cropped up in mainstream or social media or through random YouTube videos watched over the years gave me a mapping of what narratives I might discuss.

Another related criticism was whether or not I cut and pasted enough information from the Web-scraped text into each respective theme's single document. Each single document hosted verbatim textual passages, where one pasted highlight of information consisted of a set of full paragraphs, one paragraph, or parts of a paragraph. For example, there may have only been one sentence in an entire paragraph that I thought captured the essence of an argument, so only that one sentence was cut and pasted into the economics document that housed every other textual passage across the five sources. More often, I decided to capture a few sentences above and below the main targeted sentence, even if I knew the sentences above and below would not be part of my narrative write-up. This was done to give the ideas, concepts, issues, and arguments richer context. When it came time to return to these ideas, concepts, issues, and arguments, I would be able to understand the context of what was being said and how it was being couched in a larger debate. Again, where the criticism enters is whether I included enough contextual information above and below the primary idea, concept, issue, or argument to give myself and the reader enough detail to follow the narrative. My aim was not to plaster textual passage after textual passage, with each of the chapters drowning in endless words. Instead, it was my task to collect the jigsaw pieces, turn the jigsaw pieces upright, trial how they might fit together, and attempt to connect all pieces until the picture with four corners took focus.

My role as researcher consisted of not only tracing and explaining the events that occurred and the actors and institutions involved. It was partly my aim to also influence how socio-legal scholars might think about the role telecommunications laws and regulations play in

agency accountability and public debates. As a researcher, I had to provide resolutions and some solace with the arguments presented in the debates. At the same time, I was careful not to smash arguments into billions of pieces and put them back together to identify precisely what was wrong or try to lead the reader to an understanding for what should happen. Every narrative segment was not a lesson; there was not some grand reveal lurking on the next page, ready to showcase a clear path forward to bring finality to the net neutrality debates. Critically analyzing the narratives of understanding under the four themes was an approach to examining how the themes either facilitated an improvement or not to the ways in which data packets and the Web should be governed.

In the end, these drawbacks and critiques of the methodology and research procedures employed were not meant as a straw-person, informal fallacy to justify every research decision made. It was my hope to acknowledge and attempt to address some of the pitfalls evident in the methods while realizing some pitfalls will remain hazardous for researchers conducting similar research. In addition to addressing pitfalls at the end of Chapter 2, section 2.2 began by detailing the components of a content analysis and drew on strategies to render meaning and interpretations from texts. Using online content as an object and field of study helped explain the Web-scraping techniques to access and retrieve the textual data. Section 2.3 described the research procedures for data collection and organization strategies by reviewing the datasets, data coding, data categorization with word frequency queries results and matrix categorization queries results, intra-coder reliability, thematization, and narration of data. With documenting the trail of publicly-accessible texts and the employment of a content analysis, the aim was to provide a high level of research transparency before presenting Chapters 3–6's findings.

Chapter 3 – Thematic Findings Part I: Economics

3.1 – Chapter Overview

The first major theme, economics, will comprise of the following four socio-legal narratives: defending the role of the Internet in the market economy; infrastructure investments; paid prioritization; and antitrust and consumer protection laws. In Chapter 3, the economics theme reflects common ground between net neutrality advocates and opponents by citing evidence of defending the role of the Internet in the market economy at all costs; most arguments are rooted in what is best for the economy. Tensions rise when net neutrality advocates and opponents present conflicting broadband infrastructure investment numbers. Paid prioritization (i.e., the partitioning of data traffic to evade traffic congestion, usually in exchange for higher monetary payments by users, to optimize content, applications, platforms, services, and/or devices) is then questioned with regards to advantages and disadvantages concerning investments, data congestion, and innovation. The economics theme ends by assessing whether and how antitrust and consumer protection laws could address harms to competitors and/or users in the form of blocking, throttling, and paid prioritization of data.

In Chapter 3, I will assess narratives of defending the role of the Internet in the market economy, infrastructure investments, paid prioritization, and antitrust and consumer protection laws. The highly partisan nature of the net neutrality debates shows how the majority of Democrats reside as net neutrality advocates and the majority of Republicans reside as net neutrality opponents. Inflamed rhetoric on both sides of any political debate is normal, but the net neutrality debate was certainly heightened during the reign of Republican President Donald Trump. The political climate could be characterized as a partisan divide where the Trump administration sought to reverse many Democratic President Barack Obama-era rules. The

politically partisan backgrounds of net neutrality advocate and opponent actors and institutions/organizations have been and will continue to be identified throughout these debates. Net neutrality advocates and opponents' arguments are organized by issue in Appendix H's *Chapter 3 Summary Table*. Net neutrality advocates and opponents' arguments are juxtaposed side-by-side in the table. The phrase "*No direct response*" in the table is indicated for net neutrality advocates or opponents who did not have a direct response to an issue raised by the other side.

3.2 – Economics: Markets, Investments, Paid Prioritization, & Antitrust & Consumer Protection Laws

Section 3.2.1 describes the common ground between net neutrality advocates and opponents. Most arguments by net neutrality advocates and opponents emphasize the importance of strengthening the U.S. market economy. Net neutrality advocates centre arguments around fostering an inclusive Internet for all socio-economic status communities and all sizes of edge providers, where ISPs should be oriented towards fairness and openness. Edge providers are "individuals and entities that provide content, applications, [platforms,] services, and devices," such as search engines, social media platforms, product subscription sellers, and user data sellers for advertising (Cho, 2020, p. 1). In this view, the FCC should help foster competition by proscribing clear rules about what ISPs can and cannot do to data traffic and content. The repeals of the 2015 Order are viewed as recouping lost profits from television cable-cutting and allowing for predatory practices to metastasize monopolies. By contrast, net neutrality opponents believe that the 2015 Order was a power grab and restricted freedom to operate business strategies and practices, thereby undermining future investment. Antitrust and consumer protection laws are introduced to think about how law can address negative effects of ISP harms (i.e., blocking,

throttling, and paid prioritization of data). Net neutrality opponents also argue that monopolies exist in all market economy sectors, including the broadband marketplace. Marketplace dominance fuels investment, innovation, and growth.

Section 3.2.2 poses arguments that broadband infrastructure investments are up or down, or that studies are too inclusive to truly say. The pendulum of numbers and facts swing back and forth between net neutrality advocates and opponents. The studies cited refer to the timelines of before the 2015 Order, during the period of the 2015 Order and before the 2017 Order, and during the period of the 2017 Order to present investment projections and trends. Net neutrality advocates cite positive ISP investment projections and testimonies, as well as investment dollars and capital expenditures during the 2015 Order. Net neutrality advocates also note increases in ISP stock prices. And net neutrality advocates argue that some investment decreases may have occurred pre-2017 Order, but only because some studies failed to account for macroeconomic factors. Separately, net neutrality opponents cite negative ISP investment projections, as well as investment dollars and capital expenditures, because of the 2015 Order. Infrastructure investments, fibre optic deployment, and Internet speeds all increased because of the 2017 Order. Net neutrality opponents also argue that the increase in stock prices can be attributed to ISP market players' predictions. And net neutrality opponents argue that some investment increases may have occurred pre-2017 Order, but only because some studies included investments in foreign networks and handsets. Contradictions in numbers and facts are rampant between net neutrality advocates and opponents.

Section 3.2.3 captures the bouts between net neutrality advocates and opponents on whether and how paid prioritization promotes investment and higher quality of service from market players. The 2017 Order details how paid prioritization is one way to help close the

digital divide by spurring investments in the market economy and providing lower costs for all users. Others fear that tiered pricing will divide users into haves and have-nots in accessing the full range of Web services. Prioritization is a built-in design that identifies and designates different data packet routing sequences; thus, a ban would disrupt most services and applications. Net neutrality advocates and opponents deploy a string of analogies to illustrate the advantages and disadvantages of paid prioritization. These analogies include ambulance emergencies, medical health, the U.S. Post Office, cutting the cable, the airline industry, Burger King's Whopper burger, and beer taps at bars. Perspectives given by ISPs and their supporters and by ISP critics, including politicians, are explored to identify reasons for and against paid prioritization practices in theory and practice.

Section 3.2.4 questions the relevance of antitrust and consumer protection laws as the righteous path to justice as deterrents from and solutions to addressing negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) to competitors and consumers. The FCC in its 2017 Order heavily critique Title II classification of ISPs in favour of reverting to Title I classification of ISPs. Title II in the Communications Act of 1934 classifies ISPs as *common carriers* and as providing *telecommunication* services, whereas Title I classifies ISPs as *information service providers* and as providing *information* services. Throughout this section, the Sherman Act (especially the *single entity* doctrine), the FTC Act, the Clayton Act, and the Communications Act are examined to assess how procedural laws and policies deal with net neutrality violations. Furthermore, treating all competitor and consumer violations on a case-by-case basis is a major point of contention between net neutrality advocates and opponents. Finally, I discuss how states responded to the 2017 Order through net neutrality principles via broadband access bills.

3.2.1 – Reflecting Common Ground: Defending the Role of the Internet in the Market Economy

Section 3.2.1 describes the common ground between net neutrality advocates and opponents. Most arguments by net neutrality advocates and opponents emphasize the importance of strengthening the U.S. market economy. Net neutrality advocates centre arguments around fostering an inclusive Internet for all socio-economic status communities and all sizes of edge providers, where ISPs should be oriented towards fairness and openness. Edge providers are “individuals and entities that provide content, applications, [platforms,] services, and devices,” such as search engines, social media platforms, product subscription sellers, and user data sellers for advertising (Cho, 2020, p. 1). In this view, the FCC should help foster competition by proscribing clear rules about what ISPs can and cannot do to data traffic and content. The repeals of the 2015 Order are viewed as recouping lost profits from television cable-cutting and allowing for predatory practices to metastasize monopolies. By contrast, net neutrality opponents believe that the 2015 Order was a power grab and restricted freedom to operate business strategies and practices, thereby undermining future investment. Antitrust and consumer protection laws are introduced to think about how law can address negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data). Net neutrality opponents also argue that monopolies exist in all market economy sectors, including the broadband marketplace. Marketplace dominance fuels investment, innovation, and growth.

The FCC feared that telecommunication carriers would prioritize data through discrimination, subsidization, and pricing of *common carrier* services in the method of packet switching. *Packet switching* is “the process of sending large amounts of information from one computer to another by sending the data in separate small packets that are collected together

again when they arrive” (Cambridge Dictionary, 2021b). Moreover, *packet switching* is “the division of data ... into packets for transmission in an electronic communications network” (Merriam-Webster Dictionary, 2021b). Prioritization can be implemented through discrimination, subsidization, pricing, blocking, and throttling of services, applications, and content. The FCC’s fear was justified since AT&T was already a monopoly in the telephone services industry (Consumers Union, 2018, p. 5). Net neutrality opponents perceived paid prioritization as the framework that promoted and strengthened investments into a healthy market economy. Net neutrality advocates perceived paid prioritization as an unfair market practice that produced inequality for market players and users. Despite these differences, defending the role of the Internet in the market economy was usually alluded to or deliberately said by both sides.

Net neutrality advocates Electronic Frontier Foundation (2018, pp. 24–25), a non-profit organization that defends civil liberties in the digital world, argued that less competition and innovation may transpire if ISPs remained as gatekeepers to the marketplace of ideas. Some well-established businesses may be able to afford connectivity deals with ISPs, but most businesses who cannot afford expensive connectivity deals may suffer unreliable connectivity and poor user experience or no connectivity at all (pp. 24–25). Gaining entry access to the ISP backbone was an issue brought up, and most often led, by politicians. Democratic Senator Van Hollen argued that net neutrality guarantees access to the Internet for all and “not just for those who can afford to pay more” (*Congressional Documents and Publications*, 2018). The repealing of net neutrality would stifle competition and put “corporate interests ahead of innovators, small businesses, and American consumers” (2018). From the user-side of things, Democratic Congressman Tim Ryan said that classifying the Internet as a utility under Title II regulation

would “help plug disconnected communities back into our economy” and subsidize costs for low-income communities (*Congressional Documents and Publications*, 2017). For Democratic Senator Ed Markey, net neutrality was the *conscience* found in capitalism that disallowed large corporate takeovers of smaller businesses, including start-ups, and users. Corporate agendas, or “capitalism without a conscience,” should not impede fairness and openness in the market economy (165 Cong. Rec. S. 3304, 2019).

Republican Senator Ted Cruz likened the 2015 Order to “Obamacare for the Internet” (Bode, 2017b). Senator Cruz defended the use of this label to “raise awareness” about the “power grab” that the Democratic Obama administration ordered. The 2017 Order was an attempt to roll back this “power grab, protect[] open Internet principles, ... [and generate] billions of dollars of new economic activity and millions of jobs, largely free of government’s heavy hand” (2017). The 2017 Order gave companies stability and more freedom to operate. Moreover, shortly after the Republican Trump administration took office in 2017, *Communications Daily* (2017a) speculated that the administration was likely to name a woman to the open Republican FCC Commissioner position. American Enterprise Institute (AEI) scholar and economist Roslyn Layton told *Communications Daily* that some nations required at least one economist to serve on the communications regulator team: “[i]t’s hard to imagine running a telecom authority without economics playing a central role” (2017a). Layton continued to say that in the Democratic Obama-era FCC, “rulemaking was frequently ideological and lacked the necessary analytical, technical, and empirical heft that Americans expect from an expert, independent agency” (2017a). Overall, politicians on both sides argued for the retention of a strong market economy. The debates were framed by asking, what makes a strong market economy?

Scholarly figures and institutions also promoted arguments for and against net neutrality by considering how to strengthen the market economy. Reply comments submitted to the Electronic Comment Filing System (ECFS) from a collection of national higher education and research library institutions (ACE – American Council of Education – being one) suggested a compromise. The case was made that the FCC should adopt adjudicating complaints on a case-by-case basis to see if broadband providers were in line with an “Internet reasonable” conduct standard (AACC et al., 2017, p. 13). These associations clearly defended net neutrality but were careful to include language about providing regulatory “guidance to the market” (p. 13). Moreover, these associations called for FCC rules to “adapt to changes in the broadband marketplace, while still allowing the Commission to proscribe specific behaviour (such as paid prioritization or intentional degradation) that violate[s] ... openness” (p. 13). Balancing the market and providing assurances against practices that violated net neutrality were expressed. Additionally, Allen Grunes, the founder of the Konkurrenz Group (a consultant group and law firm that advises small businesses, Fortune 500 firms, consumer advocacy groups, and state governments) said that user data could be used by dominant platforms to limit competition (*Communications Daily*, 2017c). Antitrust violations could be identified if an ISP limits competition through their market dominance (2017c). How to fit antitrust laws with competition was sometimes difficult to prove though. Adam Thierer, a senior researcher at the Mercatus Center at George Mason University, argued that “the complaints that big is bad have come up again and again” and that anxiety around market concentration was not new (2017c).

According to Ferguson (2018), antitrust laws are enforced through “criminal and civil enforcement actions brought by the Department of Justice’s Antitrust Division, civil enforcement actions brought by the FTC, and lawsuits brought by private parties asserting damage claims.” In

the past, law had little effect on the emergence of network platforms. Ferguson (2018) asked how Facebook harmed consumer welfare by providing free services, or how Google breached antitrust laws if it were not the only search engine to choose from. Ferguson referred to entrepreneur and venture capitalist Peter Thiel who claimed that competition was for losers and eroded profits. Companies that could one day become monopolies were companies worth investing in. Similarly, President Sam Altman of Y Combinator, a seed money start-up accelerator (who Thiel used to be a part-time partner of before cutting ties), said that Y Combinator looked to seed companies who could “get more powerful with scale and that ... [were] difficult to copy” (2018). Net neutrality opponents perceived how monopolistic drives of earning enormous market shares were embedded in the foundations of a strong market economy.

Regardless of how laws and regulations influenced technology outcomes, the free market would always allow for a building of monopolies. One line of arguments by net neutrality advocates was how the hierarchies built by acquiring powerful market shares dispossess other businesses trying to enter the market or diminishes quality of service for users. And the retort by net neutrality opponents was that smaller and entry-level ISPs were trying just as hard as larger, more seasoned ISPs to gain market shares. Thus, both market players were trying to establish dominant market positions. One way to accumulate economic growth was to invest more into one’s own network infrastructure to expand superior broadband coverage.

Arguments began to rise between net neutrality advocates and opponents in debates about ISPs’ infrastructure investment strategies. For instance, Karl Bode (2018b), an avid net neutrality news writer, argued that the statement net neutrality hurts investments “is a lie easily disproved by publicly-available data” (Bode, 2018b). From Bode’s (2018b) perspective, allowing for greater infrastructure investment, as Republican FCC Chairman Ajit Pai hoped for, meant a

mixture of “gutting broadband programs for the poor, protecting the cable industry’s monopoly over the cable box from competition, making it easier for prison phone monopolies to rip off inmate families, dismantling generations old media consolidation rules simply to aid Sinclair Broadcasting’s merger ambitions, ... [and eliminating] broadband privacy protections.” By contrast, net neutrality opponents argued that Title II classification stifled growth and innovation. In particular, the State of Maine ranked fifth in the nation for lowest average Internet speeds (*ICT Monitor Worldwide*, 2019). Americans for Prosperity, one of the most influential Libertarian Conservative political advocacy groups in the nation, examined how nation-wide broadband investment dropped by more than 5.6 percent (2019). Reverting to net neutrality in the future “would stifle growth and disincentivize private investment in ... broadband infrastructure” (2019). These two contentions are a preview of the next section. Section 3.2.2 provides a kaleidoscope of examples about number trends and quarterly and yearly investment projections and reports. The numbers and facts presented will admittedly end in confusion by asking: are ISP broadband infrastructure investments up or down? Studies brought up in debates will assess the impacts both the 2015 and 2017 Orders had on ISPs’ decisions to invest in broadband infrastructure.

3.2.2 – Investments are Up ... Investments are Down ...

Section 3.2.2 poses arguments that broadband infrastructure investments are up or down, or that studies are too inclusive to truly say. The pendulum of numbers and facts swing back and forth between net neutrality advocates and opponents. The studies cited refer to the timelines of before the 2015 Order, during the period of the 2015 Order and before the 2017 Order, and during the period of the 2017 Order to present investment projections and trends. Net neutrality advocates cite positive ISP investment projections and testimonies, as well as investment dollars

and capital expenditures during the 2015 Order. Net neutrality advocates also note increases in ISP stock prices. And net neutrality advocates argue that some investment decreases may have occurred pre-2017 Order, but only because some studies failed to account for macroeconomic factors. Separately, net neutrality opponents cite negative ISP investment projections, as well as investment dollars and capital expenditures, because of the 2015 Order. Infrastructure investments, fibre optic deployment, and Internet speeds all increased because of the 2017 Order. Net neutrality opponents also argue that the increase in stock prices can be attributed to ISP market players' predictions. And net neutrality opponents argue that some investment increases may have occurred pre-2017 Order, but only because some studies included investments in foreign networks and handsets. Contradictions in numbers and facts are rampant between net neutrality advocates and opponents.

In this section, net neutrality advocates and opponents will present conflicting evidence to argue how investments in network infrastructure by ISPs were up, down, or too inclusive to say. I will construct the following narrative pattern of evidence in a way to expose how confusing numbers, either projected or reported, and facts can be. The increased or decreased expenditures on broadband network infrastructure are referenced in specific timelines: before the 2015 Order, during the period of the 2015 Order and before the 2017 Order, and during the period of the 2017 Order. ISPs, politicians, FCC members, economists, and industry and lobbyist groups will argue how investments were up, down, down, up, up, and down, in that order.

In early 2017, three of the nation's largest ISPs expressed confidence in investments in infrastructure. In a video produced by Internet Association (2017), AT&T, Comcast, and Verizon's CEOs painted pictures of investment landscapes to investors on quarterly earnings calls. In Jan 2017, AT&T's CEO John Stephens told investors, "[w]e had more than \$39 billion

in cash from operations for the full year. That’s a record for us. This allowed us to return substantial value to shareholders through dividends, while also investing more in capital than we ever had before” (2017). At the same time, Comcast’s CEO Michael Cavanagh told investors, “[t]hrough consistent investment and innovation, we offer the best broadband product on the market. We double the capacity of our network every 18 to 24 months. These investments enhance our competitive position, allowing us to continue to take advantage of opportunities to grow penetration and market share” (2017). And in April 2017, Verizon CEO Matt Ellis told investors, “[e]arlier this week, we announced a strategic agreement with Corning, with whom we have a long relationship, to supply optical fibre and hardware solutions of at least \$1.05 billion from 2018–2020” (2017). January and April 2017 were 11 months and eight months, respectively, before the 2017 Order was passed. The three ISP CEOs conveyed to investors record earnings, and the doubling of network capacity and rollout of fibre across the next two years. Ajit Pai was made FCC Chairman on January 23, 2017, and at that time, the repeal of Title II was mere speculation. Making statements about earnings and basing future investment plans on Title II speculations would have raised caution flags for investors. In addition, a collection of smaller ISPs discussed the benefits enjoyed under the 2015 Order. Reply comments by Open Media and Information Companies Initiative (Open MIC, 2017, p. 8) on behalf of itself and various investment advisors, relayed that in June 2017, over 40 smaller non-publicly-held ISPs said that the 2015 Order did not hurt their abilities to develop and expand networks. The collection of smaller ISPs said that they saw “no reason why ... [net neutrality] should not be required as a matter of law” (p. 8). The smaller ISPs were concerned that the FCC may enhance larger ISPs’ “market power without any meaningful restraints on ... [its] ability to monopolize large swaths of the Internet” (p. 8).

On the Senate floor, standing in front of a poster board that read “STOP BIG BROADBAND FROM SLOWING DOWN YOUR INTERNET – PROJECT #NETNEUTRALITY,” Democratic Senator Ed Markey (2017a) exclaimed that ISPs “invested more than \$87 billion in capital expenditures in 2015; that’s the highest rate of annual investment in the last 10-years.” Senator Markey, during an Executive Session, also attempted to dismantle Republican FCC Chairman Ajit Pai’s claims that ISP broadband investments were down because of the 2015 Order. Senator Markey argued that broadband investments in the aggregate had increased in the two years since the FCC passed the 2015 Order. He noted that broadband speeds also increased after the 2015 Order, and that, “[i]n 2016, almost half of the venture capital funds invested in this country went toward Internet-specific and software companies. That is \$25 billion worth of investments” (163 Cong. Rec. S. 7983, 2017). Thus, according to the evidence so far, the 2015 Order did not sway ISPs or their investors to run for the hills before the supposed disaster of heavy-handed state government laws hit. What was the testimony that described how investments were down before and during the period of the 2015 Order? How could one decision-making policy that would define how ISPs operate and compete in the market economy rely on conflicting evidence about investment projections and trends?

Democratic Congressman Sanford Bishop questioned Democratic FCC Commissioner Jessica Rosenworcel about ISP investments (*Financial Services*, 2019b). Congressman Bishop found conflicting evidence between the FCC’s analysis in claiming that net neutrality harms Internet infrastructure investment, yet ISP executives told him specifically that net neutrality did not affect business decisions. He asked Commissioner Rosenworcel whether new credible evidence could change a rulemaking decision. The question referenced Republican FCC Chairman Ajit Pai who said in the same hearing that he would change his mind about net

neutrality if presented with economic analysis that showed an increase in infrastructure investment. Congressman Bishop directly asked Commissioner Rosenworcel whether that position was consistent with the FCC's rulemaking requirements. The Commissioner responded by saying that the record reflected that since the 2017 Order became legislated, capital expenditures decreased. She did caution that both net neutrality opponents and advocates in claims about infrastructure spending being up, down, or unchanged must be subject to peer review. She also cautioned about records reflecting telecommunication carriers' data without external reviews (2019b).

In the same Congressional hearing (*Financial Services*, 2019a), Democratic Congressman Sanford Bishop asked Republican FCC Chairman Ajit Pai about the recently approved creation of the Office of Economics and Analytics in the FCC. Congressman Bishop asked whether this new Office would "allow the FCC to conduct independent economic analysis in cases where economic record is ambiguous like with net neutrality" (2019a). Chairman Pai replied that the new Office was created to "centralize that function of economists and data analysts and others who previously had been sprinkled throughout the agency, without any workflow coordination necessarily. They were sometimes left out of the equation altogether" (2019a). The Office's purpose was to conduct research and analysis on the drawbacks and benefits of proposals, gaps in the data, and findings in geographic information mapping to make better decisions. The 2017 Order was legislated before the Office of Economics and Analytics was initiated. So, what bouts of ambiguous records prompted the creation of the Office?

Republican FCC Chairman Ajit Pai was still being grilled with questions in the lead-up before the 2017 Order was put to a vote about conflicting investment infrastructure evidence. In a Senate hearing video posted July 19, 2017, Democratic Senator Ed Markey (2017b) grilled

Chairman Pai when he said he found zero evidence to suggest that publicly-traded ISPs reported to their investors “by law” that Title II negatively impacted investments in networks. The Senator questioned that since many ISPs increased deployment and investment, “what is the evidence that you’re relying upon that you proceed with towards a potential repeal of these net neutrality protections” (2017b)? The Chairman immediately replied that in the NPRM (notice-of-proposed-rulemaking), the FCC “cited some evidence that among the top 12 Internet service providers, in terms of size, that investment was down. Also, a number of smaller providers, including municipal broadband providers, fixed wireless providers, small cable companies, and others submitted evidence” (2017b). The Senator then sharply looked up from his papers with a fixed stare and said, “[a]necdotal evidence is not evidence, OK? There is no factual basis for that change, and I just think it’s going to go right to the heart of the Internet’s growth and job creation in the coming generations” (2017b). Moreover, on July 12, 2017, Democratic Senator Maria Cantwell affirmed in a Senate Session that ISP investments went up by five percent in the two years following the adoption of the 2015 Order. The claims by those who she referred to as the “enemies of an open Internet” was that investments were suppressed and it left users with incomplete or faulty broadband infrastructure (163 Cong. Rec. S. 3944, 2017). Within this one-week timeframe, conflicting results based on cited evidence were already brewing.

Travelling back four months from this July 2017 period, on March 8, 2017, Democratic Senator Maria Cantwell challenged Republican FCC Chairman Ajit Pai to make crystal clear the basis for the downward change in investments by ISPs (*Oversight*, 2017). She referred to the U.S. Census Bureau’s Annual Capital Expenditures Survey for 2015 to show that “the total capital expenditures by wired telecom carriers, cable distributors, broadband ISPs, wireless telecom carriers, and telecom resellers increased by more than \$550 million over the 2014 level”

(2017). The response given by Chairman Pai began by directing the Senator’s attention to reviewing the decline in capital investment before and after Title II reclassification. Chairman Pai argued that “comparing 2013 (i.e., the year before President Obama announced his desire for Title II re-classification) with 2015 (i.e., the year the FCC reclassified broadband as a Title II service) shows annual capital investment being slightly lower in 2015 compared with 2013” (2017). Chairman Pai further cited economist Hal Singer’s findings in tracking investments of 12 ISPs between 2014–2016 to say that “domestic capital expenditures declined by 5.6 percent or \$3.6 billion” (2017). At the time, Singer was also an adjunct professor at Georgetown’s McDonough School of Business, Senior Fellow at GW Institute of Public Policy, and Principal at Economists Inc. Chairman Pai clarified that studies that concluded investments had increased may have counted upgrading foreign networks as domestic network investments. For instance, a U.S.-based ISP that invests in network infrastructure in Mexico should not be counted towards domestic investment dollars. In addition, U.S.-based ISPs may change “accounting treatment of handsets from an operating expense to a capital expense,” thus rendering total expenditures inaccurate (2017).

Republican FCC Chairman Ajit Pai consistently repeated the numbers and facts he cited about ISP investment trends and projections in an April 27, 2017 PBS NewsHour (2017) interview segment. His answers were in response to questions about investment trends, blocking and throttling, and the role of the FCC in regulating the Internet. Chairman Pai said that investment in infrastructure had gone down since adopting the 2015 Order: “[a]mong the top 12 Internet Service Providers in terms of size, investment ... [was] down by 5.6%, or several billions of dollars over the last two years. And amongst smaller providers[,] ... 22 Internet Service Providers with 1,000 customers or less” told the FCC that Title II regulations hurt the

means to acquire the financing needed to build out networks (2017). Moreover, in the official FCC records, there were “only scattered anecdotes” about ISPs blocking and throttling services (2017). Chairman Pai said that there should be “overwhelming market failure” to pre-emptively regulate “all 4,462 Internet Service Providers” (2017). Chairman Pai concluded the segment by saying that “as a [state] government regulator, we don’t put faith in any single particular sector of the economy or particular company. We put our faith in the rule of law[,] ... which includes antitrust law and consumer protection law” (2017). Chairman Pai’s accusation about scattered anecdotes that cited ISPs blocking and throttling services would be re-traced three months later by Democratic Senator Ed Markey’s accusation about anecdotal evidence embedded in citations that investments were down. In the December 14, 2017 Order (released January 4, 2018), the FCC cited specific independent economist and researcher group studies to support its decision to repeal Title II regulations. One question by net neutrality advocates was whether and how this cited evidence was credible.

The FCC cited Hal Singer’s study in its 2017 Order (Restoring Internet Freedom, 2017, p. 55), with the conclusion that ISP investments fell by 5.6 percent between 2014–2016. Singer tried to account for “factors unrelated to Title II that might affect investment, by subtracting some investments that are clearly not affected by the regulatory change (such as ... AT&T’s investments in Mexico[] and DirecTV investments following its acquisition by AT&T in the middle of this period)” (p. 55). The FCC also cited a study conducted by Free Press (an advocacy group that shapes media reform policy), which claimed that investments were at all time highs after the FCC approved the 2015 Order. However, Free Press did not consider “foreign investment ... as capital expenditures” (p. 55). Taking these two studies into consideration, a comparison by Doug Brake, Director of Broadband and Spectrum Policy at Information

Technology and Innovation Foundation, “adjusted the Free Press and Singer numbers so that ... [it] covered the same ISPs, spanned the same time period, and subtracted investments unaffected by the regulatory change, [and] found that both sets of numbers demonstrate that ISP investment fell by about 3 percent in 2015 and by 2 percent in 2016” (p. 55).

The FCC further expressed concern in the 2017 Order (Restoring Internet Freedom, 2017) about regulatory creep. The FCC feared that any future FCC or regulator could increase its reach and extension of regulations beyond defined measures. The FCC argued that Title II added “a risk premium on each investment decision, which reduces the expected profitability of potential investments and deters investment” (p. 60). The FCC primarily cited Comcast, Charter, CTIA, ACA, and The Free State Foundation ECFS (Electronic Comment Filing System) reply comments and documents when it argued that ISPs were less willing to invest since the FCC could reverse any decisions under Title II. The reversal of decisions could include actions such as “rate regulation and unbundling/open access requirements” (p. 60). The regulatory actions could harm the infrastructure investments presently put into motion. The FCC also cited AT&T’s ECFS reply comments, who said: “any rational ISP will think twice before investing in innovative business plans that might someday be found to violate the Commission’s undisclosed policy preferences and thus give rise to a cease-and-desist order and perhaps massive forfeiture penalties” (p. 60). Furthermore, the FCC widely responded to some of the reply comments that pointed to a discrepancy between ISP statements to investors and ISP statements in this proceeding. The statements made to investors by ISP executives conveyed that “business *practices* will not change because ... [ISPs] were not engaged in the conduct prohibited” by Title II (p. 61; emphasis in original). The FCC clarified that some statements in the reply comments wrongly point out that ISPs’ investment priorities remained unchanged after Title II (p. 61).

The FCC (Restoring Internet Freedom, 2017, p. 68) also argued that there were very few cases of actual negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data). The isolated cases were few and far between. The transparency rule in the 2017 Order would require ISPs to disclose such blocking, throttling, and paid prioritization practices (p. 68). The FCC brushed off any unaddressed negative effects of ISP harms that the transparency rule, consumer protection laws, and antitrust laws could not account for as being “small relative to the costs of implementing more heavy-handed regulation” (p. 68). In Democratic FCC Commissioner Mignon Clyburn’s dissent, she vehemently opposed the 2017 Order by stepping back to say, “[s]imply identifying an effect lends no insight into what caused it. So too with capital expenditures. To suggest that net neutrality rules shifted billions of dollars in capital beggars the imagination, and the record offers no proof that investment trends match the regulatory landscape” (p. 226). She went on to say that economic rigor comes from isolating variables, such as time, with past and present changes in investments. The broadband capital exchanges trend aligns with the capital exchanges trend in the nation. If ISPs decreased investments, the decision could come from “macroeconomic factors that influenced the overall economy, rather than the 2015 Open Internet rules” (p. 226).

Jumping forward to the *Mozilla Corp. v. FCC* (2019) case to put these claims into full circle, one of the arguments made by the Petitioners was how the FCC erroneously found that the 2015 Order rules caused ISPs to reduce investments. *Mozilla Corp. v. FCC* (2019) was a case heard in the U.S. Court of Appeals for the District of Columbia Circuit where the Petitioners unsuccessfully attempted to appeal the 2017 Order reclassification of Internet services as *telecommunications* (or *common carrier*) service. The Appeals Court ultimately ruled in favour of the FCC in that the FCC had the authority to reclassify Internet services as an *information*

service; however, the Court ruled in favour of Mozilla Corp. in that state and local laws could enact net neutrality rules. According to the Petitioners, there was an aggregate investment increase of 5.3 percent by investors for ISPs during the two years after the 2015 Order was implemented, and two-thirds of ISPs increased investments in the broadband market, with some investing between 25–50 percent (2019). In fact, ISP stock prices rose by 17 percent more than the S&P 500 in the year through mid-2015 (2019). The FCC then panned this in its defence by explaining that this increase “may reflect the forward-looking, predictive capabilities of market players” (2019). The Petitioners took issue with this statement and declared it was impossible for market players to have predicted a Title II reclassification was coming at that point in time. Reclassification “was not the preferred course announced by the FCC in the 2014 NPRM” (2019). The Petitioners sarcastically and rhetorically added: “[o]r was it that the market predicted a future FCC would undo the rules, a prediction for which there was no basis in 2015” (2019)? The crux of the Petitioners’ argument was that the FCC failed to consider that the “investment community did not see BIAS [broadband Internet access service] providers’ businesses as any less attractive” (2019).

Five months after the *Mozilla Corp. v. FCC* (2019) case was decided on October 1, 2019, Senator John Thune asked Congress to adopt bipartisan net neutrality legislation. He claimed that in 2018, ISP investments rose by \$3 billion, ISPs deployed fibre networks to 5.9 million new homes, and Internet speeds had increased (JohnThune, 2020). Senator Thune attributed the cause of these three results to the 2017 Order’s light-tough regulation approach. To reach the highest level of fibre optic network deployment in the year following the adoption of the 2017 Order says one of two things. One, the 2017 Order rules opened the ability for ISPs to invest in broadband infrastructure without worry of costly rate regulations or unbundling/open access

requirements. Or two, ISPs were setting sights on investing in broadband anyway, regardless of potential changes in net neutrality policies. Recall that investing in capital with major cash flows from previous years, doubling the network capacity every one-and-a-half to two-years, and contracting a fibre and hardware solutions supplier to roll out at least \$1.05 billion from 2018–2020 were projections promised by three large telecom CEOs.

Decisions to invest in broadband must face the challenge of paid prioritization. In the 2017 Order (Restoring Internet Freedom, 2017, p. 147), the FCC anticipated that lifting the ban on paid prioritization would increase network innovation, as opposed to having “a chilling effect” on network innovation, and would increase the development of high quality-of-service (QoS) arrangements. Some of the guarantees on QoS arrangements include addressing data “packet loss, packet delay, secure connectivity, and guaranteed bandwidth [speed]” (p. 147). The Commission also cited three studies that found paid prioritization lead “to higher investment in broadband capacity,” which reduced “congestion,” and lead to “greater innovation on the edge provider side of the market” (p. 152). Paid prioritization also allowed “more edge providers who need a high quality of service to enter the market” (p. 152). Overall, paid prioritization is at the centre core of the net neutrality debates.

3.2.3 – Paid Prioritization as a Beneficial Function?

Section 3.2.3 captures the bouts between net neutrality advocates and opponents on whether and how paid prioritization promotes investment and higher quality of service from market players. The 2017 Order details how paid prioritization is one way to help close the digital divide by spurring investments in the market economy and providing lower costs for all users. Others fear that tiered pricing will divide users into haves and have-nots in accessing the full range of Web services. Prioritization is a built-in design that identifies and designates

different data packet routing sequences; thus, a ban would disrupt most services and applications. Net neutrality advocates and opponents deploy a string of analogies to illustrate the advantages and disadvantages of paid prioritization. These analogies include ambulance emergencies, medical health, the U.S. Post Office, cutting the cable, the airline industry, Burger King's Whopper burger, and beer taps at bars. Perspectives given by ISPs and their supporters and by ISP critics, including politicians, are explored to identify reasons for and against paid prioritization practices in theory and practice.

In the 2017 Order, the FCC painted paid prioritization as a means of closing the digital divide. The FCC rejected the notion that "ISPs will engage in 'virtual redlining'" (Restoring Internet Freedom, 2017, p. 155). Virtual redlining refers to the red lines drawn on geographic maps as spaces to avoid infrastructure and service investments. Low-income and racialized classes primarily occupy these demarcated spaces. An ISP may decide against acquiring city permits to dig and lay new fibre optic cables to lease lines out to other smaller ISPs in low-socio-economic and racialized neighbourhoods. The reason for not investing is based on the assumption that most low-income and racialized households would not be able to afford Internet service offers. The FCC believed that since ISPs can charge both sides of the market (end-users and edge providers), then the opportunity of providing "special low-cost broadband access" to low-income users will present itself (p. 155). In Democratic FCC Commissioner Mignon Clyburn's dissent, she expressed worry that without clear and enforceable net neutrality protections, higher costs to access greater benefits in services and tools stood in the way for businesses since many sole proprietors would "not be able to pay those tolls for premium access" (p. 223). As Democratic Senator Ron Wyden put it, once you pay a fee to enter, "you ought to be able to go where you want, when you want, and how you want," and that ISPs should be

discouraged from “hot-wir[ing] the system--to rig the [I]nternet--for the benefit of those who can afford to pay more” (164, Cong. Rec. 2687, 2018).

Paid prioritization can mean increasing the chances of living and dying. Joseph Franell, a past trial lawyer and CEO of Eastern Oregon Telecom, argued in front of a Congressional hearing that some services and applications should be prioritized because of its emergency-type nature (*Preserving an Open Internet*, 2019). One example is the FirstNet network. FirstNet is a “nationwide interoperable network that provides prioritization for public safety” (2019).

Implementing paid prioritization should be a national policy decision, just like prioritizing 9-1-1 ambulance telephone calls speeding down phone lines and cell towers over other connecting calls (2019). Similarly, Republican Congresswoman Marsha Blackburn juxtaposed the paid prioritization of emergency services to data packets being queued over other data packets (*From Edge to Core*, 2018b). Prioritizing ambulances on vehicle highways is an uncontroversial idea, just as “there is a need for voice packets to be prioritized over data packets to make sure that your 9-1-1 calls get through first” (2018b). Analogies can help explain the benefits and harms of paid prioritization. Medical health, the U.S. Post Office, cutting the cable, the airline industry, Burger King’s Whopper burger, and beer taps at bars are some of the analogies both net neutrality opponents and advocates contextualize to make cases *for* and *against* paid prioritization.

Medical health is the first analogy used to help the audience understand the arguments being made about paid prioritization. In the *Mozilla Corp. v. FCC* (2019) case audio recording, the FCC defended the benefits of paid prioritization by listing national security, non-profits, disease-control announcements, and telemedicine as being scenarios of high importance over others (CNET, 2019). Prioritizing data traffic is considered acceptable in scenarios involving

domestic or foreign terrorism, helping non-profit organizations in communicating public policies, or medical emergencies or doctors' video visits. Relatedly, Gattuso (2018) attempted to make the obvious connection to the differentiation in products and services most consumers witness on a regular basis found in most economic sectors, such as the airline, oil, and fashion industries. The differentiation in product and service quality gives consumers choices for what each person or household could afford while also transcending a select few into status symbols. Net neutrality opponents argued that a ban on paid prioritization may cause the price paid by users to rise since the rules would prohibit ISPs from paying their "full share of costs" (2018). Gattuso argued that "[t]he idea that big companies will be unrestrained once the rules are finally gone is simply wrong. These rules were only put into place in 2015" (2018). The online "creativity, innovation, access, and choice" began and has continued to run well before 2015 (2018).

The origin of the moniker *data packets* was derived from the parcel (container) of goods sent via courier delivery services from sender to receiver. Data is broken up into segments of smaller bits of data called packets. The data packets transgress over the communication lines and airwaves, and then the data packets become reassembled into a predefined order. The U.S. Post Office "prioritizes and charges different rates for mail" (Hedger, 2018). Specifically, prioritizing and *zero rating* (i.e., not counting specific traffic towards users' data caps) would give users the option to tailor their own monthly plans (2018). Journalist and net neutrality opponent Patrick Hedger (2018) continued saying that regulations "are an outright assault on the rights, particularly the property rights, of private companies who are severely restricted in ... [their] ability to control the networks." *Assault, rights, restrictions, and control* were common words chosen by net neutrality opponents to point to the overbearing regulations drawn by the FCC and

the ownership of property that should be held in a high regard in any market economy. Net neutrality advocates were less likely to point to the heavy hand of state government and the mentality of win-at-all-costs-through-ownership-of-intellectual-property-and-infrastructure. Instead, net neutrality advocates pointed to corporate greed and inequality amongst users and competitors, the intentionally miserable services and goods offered to force upgrades, and the disconnect from users' desired wants and needs.

Net neutrality advocates' arguments began at the phenomenon of cutting the television cable. Public Knowledge (a non-profit public interest group that shapes open Internet policy) Senior Counsel John Bergmayer said that ISPs had the same authority when selling lucrative cable television packages to customers. ISPs decided "where you go online and sets packages and tiers which require more money to reach more of the [I]nternet" (*Targeted News Service*, 2018). Moreover, in a conference talk video (PdF YouTube, 2017), Tim Wu (law professor and telecommunications expert who coined the term *net neutrality*) relayed that it costs ISPs roughly \$5.00 per month to provide upkeep to the goods and services they provide to broadband users. In turn, ISPs charge users an average of \$60.00–\$70.00 per month in access fees. Because cable companies have lost many TV customers due to the cutting the cable phenomenon, where users now largely consume media and entertainment content online, cable companies have increased prices in broadband services. Wu compared the levels of broadband services users can pay for with the airline industry who makes basic services miserable for travellers (2017). Many travellers would gladly upgrade their tickets to experience better departure and arrival times choices, aisle, middle, or window seat (and leg-room) choices, proximity to the washroom choices, luggage care and storage choices, nonstop flight travel choices, and meal and drink plan choices all to avoid a miserable experience.

In a social experiment video (Advertising TV, 2018) featuring Burger King, the Whopper burger is used to explain the effects of repealing net neutrality. As noted in the video description, Burger King believed the Internet should be the same for everyone, just like the Whopper. Real customers are shown a fake advertisement for the Whopper MBPS (Making Burgers Per Second). The Slow MBPS Whopper is \$4.99, the Fast MBPS Whopper is \$12.99, and the Hyperfast MBPS Whopper is \$25.99. As the manager and cashier explain the tiered pricing to customers, the 11 filmed customers each held perplexed looks and confrontational tones. One customer asked if this was “like a lane system” (2018). Another customer asked if Burger King had any Whoppers ready to be served, to which the cashier confidently replied, “yes,” but remained perfectly still, never motioning to retrieve the Whopper. The customer was stunned with their eyebrows raised and eyes widened. A third customer was handed an empty take-out bag and told by the cashier that he would put the Whopper burger in the bag in exactly 42-seconds. The reactions gauged by each of the customers at the end of the video were all similar: it was egregious to prioritize users who pay more over others who have been patiently waiting in line for service (2018).

One final analogy from net neutrality advocates was from CNET’s (2017) Bridget Carey, who attempted to explain the process of paid prioritization and its negative consequences for users through the analogy of ordering a beer at a bar. In the analogy, the bartender was the ISP, the beers on tap were the websites, and the patron was the paying broadband user. When requesting a beer (website), it is assumed that the beer be served to you (broadband user) by the bartender (ISP) at the same speed, each poured the same. Regulators believe that all beer should be poured (served) fairly and equally. In the video, an image was depicted where beer slowly dripped out of a tap and the draft faucet was tampered with and taken apart to show that access to

sites could be slowed down or outright blocked. Carey mentioned that net neutrality opponents believe that the bartender “should play nice” without regulations to not drive business away (2017). Carey followed up by asking the leading question: why should a bartender play fair if that bartender is the only game in town? The bartender may also have reason to prioritize some draft taps over others since the bartender owns some of those taps; thus, “the bar would rather serve its own brew” (2017). This realization, although slated as an argument by net neutrality advocates, is the essence of what net neutrality opponents were trying to make clear: paid prioritization is a condition that allows the market economy system to develop.

Some net neutrality opponents believed that offering loyalty discounts to paying, recurring users is not so negative. Former Republican FTC Chairman Joseph Simons argued that blocking, throttling, and paid prioritization are not considered antitrust violations. Paid prioritization “is a type of price discrimination, which is ubiquitous in the economy” (Bode, 2019a). Chief Simons used various *discount* analogies to elaborate his point further: some customers use senior-status cards, coupons, a credit card to acquire points, and a loyalty card to receive discounts at grocery stores. Moreover, customers get discounts for attending afternoon movie matinees, early-bird specials at restaurants, and happy hour. Bode (2019a) framed the analogies that Chief Simons gave as being unrelatable to paid prioritization: “[u]nder paid prioritization, ESPN could buy a network latency and speed advantage over an up and coming streaming sports outfit[.] ... Given the lack of competition in broadband, neither users [nor] impacted companies have a way (choice) to route around that behavior.” The crux of paid prioritization, for Bode, hinged on how ISPs erect arbitrary tolls and tilt the playing field.

For Judge Brett Kavanaugh, the crux of paid prioritization hinged on ISPs’ freedom of expression and free speech rights. In June 2016, the U.S. Court of Appeals for the DC Circuit

claimed that the FCC “was in its rights to reclassify ISPs as common carriers under Title II” (Bode, 2017a). In May 2017, the U.S. Court of Appeals denied ISPs’ request to appeal through an *en banc* hearing, meaning that the 2015 Order rules would remain intact. *En banc* is the “practice where all of the judges of an appellate court sit to hear an argument” and “is usually reserved for exceptionally important cases or to reconsider a decision made by a panel of the same court” (Thomas Reuters Practical Law, 2021). The *en banc* rejection prompted Republican United States Court of Appeals for the District of Columbia Circuit Judge Kavanaugh to dissent against how net neutrality violated First Amendment rights (Bode, 2017a). If ISPs do not show market power, laws should not second guess which content should be favoured. Judge Kavanaugh compared in his statement how laws do not editorialize and direct Amazon what books to promote, *The Washington Post* what columns to carry, or ESPN what games to broadcast. Bode (2017a), the journalist for the news article, wrote that there “remains a bizarre distortion” between protecting users and businesses from predatory behaviour and infringing ISPs’ First Amendment rights.

For net neutrality opponents, paid prioritization was welcomed or cautiously rejected. In the *Mozilla Corp. v. FCC* (2019) case, it was reported that there were discrepancies between some ISPs about how paid prioritization should be dealt with. Stanton (2019) observed the response given by Jon Nuechterlein, one of the councillors acting on behalf of all major ISP trade associations, to questions asked by two of the presiding judges. Judge Robert Wilkins and Judge Patricia Millet both suggested that the 2017 Order’s pre-emptions were “broad and would seem to cover traditional public safety and police power actions by states” (2019). The judges asked Councillor Nuechterlein whether ISPs wish to be able to offer paid prioritization, to which he replied, “[i]t’s a bad idea to impose a broad prohibition on paid prioritization” and that some

ISPs are on the record as being “OK with a narrow prohibition on paid prioritization under section 706,” yet “others are concerned about regulatory creep” (2019). Furthermore, in reply comments submitted by AT&T, AT&T representatives and legal counsel said that “it is an economic truism that comprehensive economic regulation imposes substantial costs” (AT&T Services Inc., 2017, p. 46). Costs are immense in industries that are technologically and commercially dynamic through the heavy regulatory restrictions imposed. What follows regulatory restrictions were questions concerning regulatory creep. Companies may be more reluctant to invest in the present if regulatory measures “will strand those investments tomorrow” (p. 46). *Regulatory creep* was precisely what net neutrality opponents were shouting when states began to take on formulating and implementing anti-blocking, throttling, and paid prioritization (discrimination) net neutrality rules.

The State of California was one of the first major states to create net neutrality legislation. And a collection of trade associations that represented the wireless communications industry tried to step in its way. The American Cable Association (ACA), CTIA – The Wireless Association, NCTA – The Internet & Television Association, and USTelecom – The Broadband Association brought forth a complaint against Democratic ASG California Xavier Becerra in the U.S. District Court for the Eastern District of California. In the *American Cable Ass’n v. Becerra* (2018) case, the plaintiffs complained about the unconstitutional nature found in the State of California’s efforts in passing net neutrality legislation. The plaintiffs argued that the act (2018) forced ISPs to abide by net neutrality principles, thereby undermining the 2017 Order’s rules that prohibit states from adopting their own laws. The plaintiffs complained that it was “impossible or impracticable for ISPs to distinguish between intrastate and interstate communications ... or to apply different rules in each circumstance” (*American Cable Ass’n v. Becerra*, 2018). In

practice, edge providers “pay intermediate network providers to reach ISPs and ... [their] customers” (2018). However, some edge providers invest in content [delivery] networks for which it directly connects to ISPs (2018). ISPs, in turn, provide “interconnection without monetary payment by either party[] to network operators that offer a generally balanced exchange of traffic and mutual value to the providers (and ... [their] customers) on both sides” (2018). If there were “shifts in traffic volumes or flows” or if “traffic or value” exchange were uneven, sharing the “costs of upgrading capacity” or making “payment in one direction or the other” could occur (2018). These cost shares or payments “help ensure that no provider is saddled with funding network costs imposed disproportionately by another, and provide market-driven incentives for interconnecting parties to exchange Internet traffic in an efficient and predictable manner” (2018). If this practice is absent, “all network costs would be shifted to ISPs’ customers” (2018).

Democratic ASG California Xavier Becerra claimed that the Web should be treated as a commodity to be paid for each month, just like water and hydro (*States News Service*, 2018). Some net neutrality advocates believed the Internet should be considered a utility that should be openly accessed for a fee. In a proposed rulemaking document submitted by the State of Rhode Island (2018 RI Regulation Text 7361, 2018), adopting amendments to state law would mean that vendors must abide by net neutrality principles or receive a waiver from the state. One of the principles is to understand and abide by a paid prioritization rule. The proposed rulemaking amendment defined *paid prioritization* as: “the management of a broadband network to directly or indirectly favor some traffic over other traffic, including, but not limited to[,] the use of techniques[,] such as traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either, (i) in exchange for consideration (monetary or otherwise)

from a third party, or (ii) to benefit an affiliated entity. Paid prioritization does not include the provision of tiered [I]nternet access service or offerings to a retail end user” (p. 13). Furthermore, Democratic Senator Heidi Heitkamp remarked that, as a member of the U.S. Senate Committee on Small Business and Entrepreneurship, small business owners worried about repealing Title II. If financial capital and resources were used to leverage positions to compete on a level playing field with larger businesses, smaller businesses may suffer, which might undercut economic activity and job growth (*States News Service*, 2017b).

As well, Democratic Senator Brian Schatz made remarks during an Executive Session to members of Congress to sarcastically think about why companies would *not* wish to engage in paid prioritization practices. Imagine ISPs thought that: “[w]e are vertical now, and we own content. Why are we going to put up our competitor’s stuff at the same rates? The law doesn’t provide for that anymore” (163 Cong. Rec. 2989, 2017). ISPs are publicly-traded companies that produce quarterly earnings reports to hopefully show investors and shareholders profits. One of the most lucrative ways to grow a business is through a corporate walled garden. A walled garden, for our purposes, is where ISPs restrict access to content, applications, platforms, services, and/or devices to partners and users. Senator Schatz argued that paying tolls puts an emphasis on the legal and business administrative side of commercial negotiations to gain access (2017). Developing an ecosystem of corporate products and services are not illegal though. Net neutrality opponents argued that if harms to competitors or users should come from predatory corporate practices, law could provide necessary protections.

President of TechFreedom, a non-profit and non-partisan technology think tank, Berin Szóka mentioned that in addition to antitrust authority, the FTC has its deception and unfairness authority and the ability to enforce industry promises and codes of conduct. President of The

Free State Foundation (a non-profit and non-partisan think tank) Randolph May said that the FCC “should apply antitrust-like jurisprudential principles. ... [R]ather than absolutist bans, any remaining net neutrality regulations should be framed to require a rigorous marketplace competition analysis and a consideration of actual, not hypothetical, consumer harms” (*Communications Daily*, 2017e). Again, from net neutrality opponents’ perspective, any negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) could be addressed through antitrust and consumer protection laws.

3.2.4 – Antitrust & Consumer Protection Laws as the Righteous Path to Justice?

Section 3.2.4 questions the relevance of antitrust and consumer protection laws as the righteous path to justice as deterrents from and solutions to addressing negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) to competitors and consumers. The FCC in its 2017 Order heavily critique Title II classification of ISPs in favour of reverting to Title I classification of ISPs. Title II in the Communications Act of 1934 classifies ISPs as *common carriers* and as providing *telecommunication* services, whereas Title I classifies ISPs as *information service providers* and as providing *information* services. Throughout this section, the Sherman Act (especially the *single entity* doctrine), the FTC Act, the Clayton Act, and the Communications Act are examined to assess how procedural laws and policies deal with net neutrality violations. Furthermore, treating all competitor and consumer violations on a case-by-case basis is a major point of contention between net neutrality advocates and opponents. Finally, I discuss how states responded to the 2017 Order through net neutrality principles via broadband access bills.

This last section in the economics theme assesses claims that antitrust and consumer protection laws can address negative effects of ISP harms (i.e., blocking, throttling, and paid

prioritization of data). I begin with net neutrality opponents. The FCC majority argued in the 2017 Order (Restoring Internet Freedom, 2017, p. 87) that Sections 1 and 2 of the Sherman Act and Section 5 of the FTC Act can protect competition. More specifically, the “Communications Act includes an antitrust savings clause, so the antitrust laws apply with equal vigor to entities regulated by the Commission” (p. 87). The FCC cited studies from 1981, 1983, 1985, and 1986 to support its claim that an increase in the likelihood of antitrust enforcement would provide lower monthly user fees (p. 92). The FCC also cited a study from 1992 that concluded that once corporations had been subject to enforcement actions, corporations were less likely to violate antitrust laws in the future (p. 92). It was problematic that the FCC cited studies done far in the past, dating before the arrival of the commercial Internet, to support its decisions.

In the FCC’s summary report (83 FR 7852, 2018) of the 2017 Order, the FCC found that economic incentives, including the spirit of competition, supported Internet openness. The FCC’s records also addressed how some of the studies that correlate ISP investment increases with Title II regulations were counterfactual. The FCC argued that it was nearly impossible to show causation between an increase in ISP investments and stock prices alongside the implementation of Title II classification policy. The FCC believed that claims that Title II increased stock prices could be attributed to the “forward-looking, predictive capabilities of market players” (2018). In other words, ISPs had the business wherewithal and foresight to influence increase stock prices.

According to the FCC’s summary report (83 FR 7852, 2018), the *gatekeeper* theory had been overestimated and that *gatekeeping* could be reduced by repealing Title II. *Gatekeeping* is referred to as the filtering and disseminating of information by ISPs. *Gatekeeping* can apply to all communication formats, from how interviewees are biasedly selected, how the news is being edited and reported, how goods and services are promoted by advertisers, and how news feeds

are tailored by one's active search habits or geo-location. But for our purposes, according to the FCC, *gatekeeping* is the idea that information filtration and dissemination curation by ISPs would be greatly reduced by repealing Title II classification protections. By contrast, net neutrality advocates argued that ISPs were gatekeepers because ISPs had "market power in selling Internet access to end users ... [and] selling to edge providers access to the ISP's subscribers" (2018). As a result, this two-sided market "might lead to market failure even in the absence (or because of that absence) of ISP market power" (2018). However, the FCC did not accept net neutrality advocates' claims. The FCC argued that antitrust law could preserve freedom of expression and other social values "to the extent that consumers value free expression as a service attribute and are aware of how their ISPs' actions affect free expression" (2018).

Net neutrality advocates disagreed with the FCC's point about free expression as a commodity users value. Net neutrality advocates also brought up the point that the *single entity* doctrine under antitrust laws absolves large corporations from net neutrality violations. Reply comments submitted by the Electronic Frontier Foundation (2017, pp. 10–12), a non-profit organization that defends civil liberties in the digital world, critiqued the NPRM (notice-of-proposed-rulemaking) for proposing to adopt antitrust laws to govern the telecommunications industry. According to the EFF, antitrust laws do not consider freedom of expression, access to knowledge, or infringement on privacy rights. Instead, antitrust laws primarily focus on defining harm in terms of higher prices and diminished product quality. In addition, antitrust laws cannot address what the EFF called the "'gatekeeper' problem" from the control ISPs have over access to information and services (p. 10). More than 9/10 U.S. citizens live under monopoly or duopoly markets for BIAS (broadband Internet access service). In practice, larger ISPs with greater market control can risk entering newer, and even untapped, markets because of their

abilities to invest. Gaining state “government permissions to use rights-of-way under public streets, on poles and antennas, and on the radio spectrum” allowed ISPs to offer cheaper service compared to smaller entrants (p. 11). EFF also brought up the *single entity* doctrine under antitrust laws that declared a company could not be held liable for illegal collusion with its subsidiary or parent companies. Both parent and subsidiary companies are considered one single entity. This would make blocking, throttling, and paid prioritization antitrust violations easier to evade by claiming a *single entity* defence (p. 12).

Net neutrality opponents still believed that the FTC could enforce fair regulations to address anti-competitive harms. In reply comments submitted by Verizon (2017, pp. 15–16), Verizon’s legal counsel reaffirmed that “Section 5 of the FTC Act grants the FTC authority to proscribe ‘unfair methods of competition.’” Verizon cited the FTC (Federal Trade Commission, 2015) to point out three principles that guided the FTC’s determination as to whether an act or practice was unfair towards the spirit of competition, even if no specific violation of antitrust laws transpired: “(1) the FTC will be ‘guided’ by ‘the promotion of consumer welfare;’ (2) the FTC will evaluate practices under a framework ‘similar to the rule of reason,’ which considers whether the act or practice will ‘cause, or be likely to cause, harm to competition or the competitive process, taking into account any associated cognizable efficiencies and business justifications;’ and (3) the FTC will be ‘less likely to challenge’ an act or practice under Section 5 ‘if enforcement of the Sherman or Clayton Act is sufficient to address the competitive harm’” (p. 16).

Some net neutrality opponents reviewed how the FTC addressed user privacy harms in the past. The Republican Acting Directors of the FTC’s Bureau of Consumer Protection, Bureau of Competition, and Bureau of Economics, Thomas Pahl, Markus Meir, and Ginger Jin,

collectively submitted reply comments to help the FCC evaluate the user privacy implications of its NPRM. The acting directors discussed that antitrust laws prohibit agreements among competitors that reduce competition. Instances of harming competition, such as “[f]ix[ing] prices, reduc[ing] output, or allocat[ing] customers,” would be deemed illegal under the Sherman Act (Staff of the Federal Trade Commission, 2017, p. 27). The acting directors then cited an example of the Department of Justice settling allegations that DIRECTV exchanged competitively sensitive information with three competitors while the three competitors were separately negotiating broadcast rights for LA Dodgers baseball games. The sensitive information revealed each competitor’s negotiating strategies, violating Section 1 of the Sherman Act. At the end of the legal proceedings, DIRECTV settled the charges by agreeing to not share this type of information in the future (p. 27). The acting directors argued that the FTC is primed in expertise to enforce antitrust laws regardless of industry type. The FTC would assess whether and how ISPs “engage in unilateral or joint conduct that is likely to harm competition in a relevant market, depriving ... consumers of the benefits of a free market” (p. 25).

Not all net neutrality opponents agreed about the FTC’s ability to apply regulations to anti-competitive and consumer-harming practices. The Internet & Television Association, formerly the National Cable & Telecommunications Association (but it still goes by “NCTA”), is the principal trade association and lobbyist group for broadband and is headed by former Republican FCC Chairman Michael Powell (2001–2005). The NCTA argued that “the FTC should endorse and reinforce the FCC’s ruling by issuing guidance to state attorneys general and consumer protection authorities,” confirming that these authorities are bound by FCC and FTC precedent (Bode, 2018a). However, NCTA was critical of the 2017 Order in that it believed the FCC should retain its ability to protect users and not “shovel[] any remaining enforcement

authority over to the FTC, which is ill-equipped to actually police the telecom market” (2018a). Bode (2018a) noted that Chairman Powell deregulated the broadband industry where prices increased, usage caps tightened, and there was hardly any competition at faster speeds. Net neutrality advocate, Gigi Sohn, who held a senior staff position at the FCC (2013–2016) under former Democratic FCC Chairman Tom Wheeler (2013–2017), said that the FTC does not have the tools to ensure a free and open Internet since it has no rulemaking authority. Rules “prevent harm before it happens — harm to consumers and harm to competition” (James, 2017). However, Cooley LLP partner Robert McDowell, and Republican FCC Commissioner between 2006–2013, reiterated that the FTC is a “\$313 million agency with 640 lawyers and 70 Ph.D. economists” (2017). McDonnell said that the FTC serves as a “giant public interest law firm ... [and that] the parade of horrors that come out from Title II proponents can all be cured by antitrust law” (2017).

Not all FTC members agreed with former Republican FCC Commissioner Robert McDowell’s sweeping statement though. Democratic FTC Commissioner Terrell McSweeney spoke on his own behalf in a personal statement at a Congressional hearing to question what he viewed as the FTC’s weak expertise surrounding Internet governance (*Net Neutrality and the Role of Antitrust*, 2017a). Commissioner McSweeney warned that the FTC does not have “expertise in telecommunications, data network management practices, or in detecting instances of data discrimination” (2017a). Antitrust tools are geared towards protecting competition, and since the broadband marketplace houses a mere select few providers, antitrust law would be ineffective. Limiting ISPs’ ability to discriminate against content or to force a higher quality of service to users would not derive from “competitive pressures” (2017a). Commissioner McSweeney went on to say that antitrust enforcement requires detection, investigation,

prosecution, a rule of reason analysis, and a “multiyear appeals process” (2017a). Therefore, fixing the harm to the rival competitor or “reset[ting] the competitive evolution of the marketplace” would come too little, too late (2017a).

Despite net neutrality advocates’ arguments about the limited legal tools the FTC possesses, net neutrality opponents further advanced arguments about FTC authority. The Advanced Communications Law and Policy Institute at New York Law School (2017) (ACLP) argued that antitrust laws do atone for anti-competitive behaviours. ACLP claimed that the FTC has the authority and ability to enforce antitrust laws on a case-by-case, fact-specific basis. In instances of a “clear market failure of an abuse of market power,” the FTC has the authority to protect consumers and businesses (p. 23). ACLP cited a staff report written by the FTC’s Internet Access Task Force (2007, p. 120) entitled, “Broadband Connectivity Competition Policy” to define competition as creating a “state of affairs in which output is maximized, price is minimized, and consumers are entitled to make their own choices.” The ACLP authors reiterated that if an ISP with market dominance employed tactics to constrain competition through blocking applications, then antitrust laws could provide a legal framework to buffer protection for users on a case-specific basis rather than pre-emptive regulatory measures (Advanced Communications Law and Policy Institute at New York Law School, 2017, p. 24). Moreover, in The Free State Foundation’s (2017) reply comments, its representative authors (the President, two Senior Fellows, and a Research Associate of the non-profit and non-partisan think tank) said that antitrust law is primarily based on consumer welfare, not protecting competitors. Antitrust enforcements require “factual evidence of actual market power problems or consumer harms, and clearly puts the burden of proof on complainants” (p. 38).

The case-by-case arguments resurfaced as a point of contention about coverage across all cases of antitrust and consumer protections. Thomas Lenard (President and Senior Fellow) and Scott Wallsten (Senior Fellow) of Technology Policy Institute (2023) (a think tank that focuses on the economics of innovation, technological change, and regulation) argued that it is difficult to implement bright-line net neutrality rules when rules like paid prioritization are integral to the functioning of data packet switching and good for user welfare to provide a range of Internet service package offerings (Lenard & Wallsten, 2017, p. 9). From Lenard and Wallsten's perspective, bright-line rules for ISPs may not be appropriate from one instance to the next; dealing with the antitrust investigation after the fact of such violations would be a better course of action. The authors also believed that antitrust laws rested on a "well-defined set of pro-consumer, economic efficiency principles and goals," giving some sense of predictability when it comes to enforcing laws (p. 11). By contrast, *predictability* is what net neutrality advocates want users and businesses to have in the form of bright-line rules. In another letter submitted by ACE et al. (2017, p. 3) (a collection of national higher education and research library institutions) to the ECFS (Electronic Comment Filing System), this time one-week before the 2017 Order was voted to be passed, concerns were expressed around the Draft Order offering "after-the-fact litigation remedies – with the cost of pursuing these remedies concentrated on the harmed entities that seek redress." Users and smaller businesses would never be able to afford the cost of litigation and could only rely on "other litigants or the FTC undertaking investigations" as a "wait-and-see" measure (p. 3).

Even Hal Singer, one economist the FCC cited in its 2017 Order, argued that antitrust law cannot address paid prioritization since *non-discrimination* is not in the vocabulary of antitrust laws (Open Technology Institute at New America, 2017a, p. 29). Singer cited a hypothetical

where ISPs contract specific services from a telemedicine provider. Here, since the ISP is not competitively disadvantaging any one of its competitors (a requirement for the *discriminatory-refusal-to-deal* antitrust doctrine), then no antitrust laws would be violated. Again, potential litigants may shy away from pursuing litigation due to high costs and long wait times to receive compensation (p. 29). Singer, adjunct professor at Georgetown’s McDonough School of Business, Senior Fellow at GW Institute of Public Policy, and Principal at Economists Inc., also appeared in a video panel discussion (New America, 2017) to frame the net neutrality debates into three camps. According to Singer, the first camp believed bright-line prohibitions go after things like paid prioritization, as expressed in the 2015 Order. The second camp relied on case-by-case enforcement adjudication pursuant to a non-discrimination standard, along the lines of what was used in the 2010 Order to police paid prioritization deals. The third camp also endorsed a case-by-case adjudication to police net neutrality disputes, but this time pursuant to antitrust standards. Here, ISPs should be able to contract with third-party providers so long as it was done in a non-discriminatory, non-exclusive way. Even though Singer is an opponent of net neutrality, he is critical of the 2017 Order in that antitrust laws would “not have much teeth” in governing ISP content and service discriminatory practices (2017). Policing discriminatory conduct was largely absent. Google’s ability to “steer eyeballs from site A to site B” (2017) skirts antitrust laws because there is no direct price effect or sale made. Here, Singer is referring to how Google Search is the search engine platform that hosts auctions for advertisers to sell their goods and services to users for a fee. Beyond being an auction bloc platform for advertisers, Google Search has been accused of manipulating its search results and engaging in predatory monopolistic activities. User choice is usually at the root of responses to anti-competitive claims by large

technology and telecommunications corporations. Claiming that choice exists between search engines or ISPs attempts to absolve corporations from antitrust legal battles.

Net neutrality advocates did not buy arguments made about choice by ISPs in antitrust and consumer protection cases. In a Joint Congressional hearing on how algorithms impact companies' decisions about data and content and how they impact users, Professor Laura Moy, the Deputy Director at the Center on Privacy & Technology at Georgetown Law, answered questions from Democratic Congressman Jerry McNerney (*Algorithms*, 2017). Congressman McNerney asked what recourse a business would have if it felt as though it were experiencing anti-competitive practices and how quickly the FTC could respond to those requests to resolve the issue. Professor Moy responded by arguing that if an ISP were throttling some innovator's services that did not necessarily compete directly with the ISP's service, that practice of throttling would technically not fall under an antitrust violation (2017). Most of the authority the FTC holds is in prohibiting unfair and deceptive trade practices; however, "there is no civil penalty authority" (2017). Thus, the uncertainty of laws to protect users and businesses has prompted states to respond with net neutrality rules.

According to net neutrality advocates, creating bright-line rules in the form of statewide broadband access bills may be one viable alternative to antitrust and consumer protection laws. Statewide broadband access bills may disallow ISPs from engaging in blocking, throttling, and paid prioritization. Two brief examples are outlined below: the States of California and North Carolina. In the first example, the laws imposed by the State of California included a prohibition on zero rating, which allowed ISPs to exempt content from companies from counting against the total data cap usage allotted to users each month (Kelly, 2018). The State of California deemed the discounting of an ISP's very own streaming site to be an unfair practice since users would

either limit their monthly access to it or avoid it altogether. However, the prohibition would not be applicable “if a carrier wanted to exempt an entire category of content, like all streaming services” (2018). The law also banned interconnection fees that a company pays when its data packets access the ISP’s network. Republican FCC Chairman Ajit Pai said that banning free-data plans only hurts users who do not have to worry about paying more in monthly bills if they were to go beyond the data limit, and that many low-income U.S. citizens enjoy zero rating (2018).

In the second example, during the week of May 24, 2018, the State Senate sought to preserve an open Internet in North Carolina by appropriating funds for statewide broadband access (*TR State NewsWire*, 2018a). The “Preserve Net Neutrality in North Carolina Act” prohibited ISPs from practicing blocking, throttling, and paid prioritization; any violation of the bill would be treated as an “unlawful trade practice” (2018a). The bill also required ISPs to fully disclose information to their users about “network management practices, performance characteristics, and commercial terms” to help make better-informed decisions (2018a). A total of \$20 million would be allocated from the state’s general funds to the Department of Information Technology (2018a). \$17.5 million would be allocated to “increase access and improve service to underserved households, businesses, and community anchor institutions to encourage private investment by lowering capital expenditures for existing and new service providers” (2018a). And \$2.5 million would be allocated to “mobile hotspots and other devices for students without home broadband access to help close the state’s ‘homework gap’” (2018a).

Net neutrality advocate Harold Feld, Senior Vice President at Public Knowledge, a non-profit public interest group that shapes open Internet policy, said that states could create standards when it comes to spending money even if a federal agency could override state laws (*MediaPost*, 2018a). Director of Broadband and Spectrum Policy at Information Technology and

Innovation Foundation Doug Brake disagreed. From Brake's perspective, instead of multiple state laws, one federal law would be better (*Warren's Washington Internet Daily*, 2018a). Brake argued that regulatory compliance costs for new entrants was not a valid reason for a national policy. New ISP entrants would face elevated costs of deploying a network. This deployment would end up being a much higher cost than compliance costs to keeping the network neutral. Even for ISPs to brand themselves as being *net neutral* is one way to entice users who actively seek non-paid prioritization services (2018a). The technology theme next propels the discussion forward about the idea that it is impossible for data to transcend state lines under the guise of net neutrality state-crafted bills.

3.3 – Chapter Summary & Discussion

3.3.1 – How do net neutrality advocates and opponents frame their discursive strategies?

Net neutrality advocates and opponents argued how paid prioritization could either widen or close the digital divide. The Republican-majority FCC did not believe that ISPs would engage in virtual redlining by demarcating where not to invest in infrastructure build based on low-income and racialized classes. ISPs in the past have been accused of deciding not to invest in low-socio-economic and racialized neighbourhoods due to perceived financial returns from a lack of customer base. Redlining in this context refers to ISPs focusing on investing in deploying broadband technologies in high-income urban, suburban, and middle-income neighborhoods. High poverty rates correlate with decisions not to invest, like in low-income communities of colour. The FCC strongly believed that ISPs could offer low-cost options for customers living in low-income and racialized neighbourhoods since ISPs can charge both end-users and edge providers. While low-cost options for customers could be a possibility to be offered, it is not a guarantee. ISPs may charge what they wish based on customer demand, competitors' prices, and

resource availability, to name a few factors. Net neutrality opponents broadly argued that users and platforms who use excessive amounts of data on a shared network should pay more money per month on a sliding scale. This model would promote greater broadband infrastructure investment and cheaper pricing options for those who use less data (Atkinson & Weiser, 2006, p. 47). Since ISPs pay for most physical infrastructure and network equipment and management costs, they should reap the rewards of their investments.

The Republican-majority FCC argued that antitrust law could preserve freedom of expression in that ISPs are freely expressing their right to charge customers how they see fit. The FCC assumed that customers would value their ISP's freedom of expression to set a price for prioritizing data packets. Yet, as Powers and Jablonski (2015, pp. 4703–4709) argue, the 'freedom of ...' narratives should be avoided. The Web is an environment that belongs to edge providers, ISPs, network operators, equipment managers, and users who accessed routers and cellular towers.

Powers and Jablonski (2015, pp. 2915–2921) explain that the 'network effect' is the external value to a communications network from adding customers. It follows that as a communication network expands, the ISP should reinvest and expand infrastructure and speed capabilities. But net neutrality advocates, like Democratic FCC Commissioner Mignon Clyburn, feared that businesses would be unable to afford to pay for tiered access to maintain competition in the market. Democratic Senator Ron Wyden added that there should be a nominal fee to enter, not a tiered apparatus to climb for gaining premium benefits. Senator Wyden likened what the FCC was trying to do with paid prioritization to hot-wiring the Web, or bypassing a vehicle's ignition switch to run it without a key.

The Organization for Economic Co-operation and Development (OECD) (2001, p. 5) defines the digital divide as “the gap between individuals, households, businesses[,] and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities.” The digital divide can refer to the “disparity” in the accessing or using of technology based on geography and “socio-economic differences across households” (Connolly et al., 2017, p. 540). One of the repercussions of the digital divide is that it can preserve or “worsen existing inequalities” (p. 540), especially those related to economic opportunities. Searching for employment, networking with potential employees and job recruiters, seeking editorial support for cover letters and resumes, and conducting practiced and real (live) interviews over video conferencing applications requires a reliable, stable Internet connection. Equal opportunity for employment is thus partly dependent on infrastructure build-out (accessibility of services) in communities, affordability, and access to decent equipment to make reliable use of Internet service connections. Fairness in charging end-users and edge providers or fairness in allowing everyone to have one fair shot at entering through one basic port of entry without premium benefits was one clash of rights rooted in the digital divide.

Throughout Chapter 3, there were many analogies used to help the communicator explain complex information, usually centred around the benefits and drawbacks of net neutrality principles. Analogies were used to make arguments about what kinds of laws and regulations should govern the Internet. According to net neutrality advocates, the power that ISPs held in the Internet market economy was comparable to the power of tiered pricing of television cable packages. ISPs showed what egregious versus excellent quality of service looked like to encourage users to upgrade, just like the airline industry did with class seating. Tiered pricing,

blocking, and throttling different services made users furious, just as it did when Burger King's Whopper burgers were made, packaged, and sold to customers at faster or slower times based on how much they were willing to pay. All websites should have been accessible to users where ISPs treated each data packet equally and delivered the same in terms of speed without being blocked, even if an ISP was the only one to choose from, just like a bartender who served beer to patrons. And ISPs should not have had the advantage of buying network latency and speed advantages over smaller ISPs, just like ESPN over smaller streaming sports outlets.

In every analogy, net neutrality advocates argued for equality, whether it was tiered service packaging, quality of service, speed, or barring competition over smaller competitors. Net neutrality advocates prescribed "equity, freedom of access[,] and a non-hierarchical structure," which is to say that they favoured technological determinism (Carr, 2016, p. 159). Here, technology has a path that is determined and has intrinsic values. By contrast, net neutrality opponents believed that technology is value-neutral and "best driven by commercial imperatives for innovation" (p. 159), which is the instrumentalist view of technology. Net neutrality opponents argued that data packets should be prioritized like the prioritization given to emergency and medical vehicles and calls, terrorism, and non-profits communicating public policies. Differentiations of data packets were like the differentiations of goods and services in the airline, oil, fashion, and postage mail industries. Rewarding loyal customers with discounts based on age, coupons, payment method, loyalty cards, and time of use was not unheard of. And laws should not editorialize how data packets were delivered by ISPs, just as laws did not editorialize Amazon, *The Washington Post*, or ESPN's privileged content.

The narratives throughout net neutrality opponents' arguments were a call for prioritizing services and users willing to pay and an *early bird gets the worm* mentality. As a result,

prioritization harboured inequality. To prioritize items, services, numbers, actors, institutions, and data packets produced a hierarchy in ranked order. The peak of the hierarchy was reserved for those who accumulated more early on and/or quickly to reap rewards (e.g., number of subscribers or wealth). There was an inequality and a divisional line of those who could afford and those who could not. There was an irreconcilable difference between net neutrality advocates and opponents in terms of arguing for and against equality and the right to equality.

3.3.2 – In what ways do formal law frameworks (empirical and normative – ‘according to law as it is and ought to be’) govern data packets and the Web?

Antitrust laws are enforced through criminal and civil enforcement actions brought by the Department of Justice’s Antitrust Division, civil enforcement actions brought by the FTC, and lawsuits brought by private parties. This “administrative legislation” Lowi (1979, pp. 273–274, 303) describes is lawmaking authority delegated from Congress to the executive branch to an agency. The agency, (the FCC in this case) carries out the intentions of Congress. Antitrust laws prohibit agreements among competitors that reduce competition. Instances of harming competition, such as fixing prices, would be deemed illegal under the Sherman Act. Antitrust laws could provide a legal framework of protection for users on a case-specific basis rather than pre-emptive regulatory measures. The question is to what extent can courts apply their laws to the net neutrality dispute (see Geist, 2001, p. 1354)?

For net neutrality opponents, FTC-led antitrust and consumer protection laws provided consumer choice and allowed competitors to compete in a market (Cherry, 2008, p. 960). Antitrust law is based on consumer welfare and protecting competitors. Sections 1 and 2 of the Sherman Act and Section 5 of the FTC Act can protect competition. Antitrust enforcements require factual evidence of actual market power problems or consumer harms and puts the

burden of proof on complainants. It is difficult to implement bright-line net neutrality rules when rules like paid prioritization are integral to the functioning of data packet switching and used to provide service offerings.

The 2017 Order's transparency rule required ISPs to disclose blocking, throttling, and paid prioritization practices, even though cases of ISP harms were rare. The Communications Act of 1934 ensures antitrust laws apply equally to entities regulated by the FCC. Once corporations had been subject to enforcement actions, they were less likely to violate antitrust laws again. This is reminiscent of Lowi's (1979, p. 108) discussion on bargaining by seeing whether facts align with earlier facts of a case, the case can be prosecuted, monetary sanctions are involved, and remorse and future compliance are evident. The FCC and FTC could set authoritative rules, define net neutrality principles for common reference, and define jurisdictional rights to intervene or not when bargaining, too.

Notwithstanding, other net neutrality opponents argued that antitrust law could not address paid prioritization since *non-discrimination* is not in the vocabulary of antitrust laws. If an ISP is not competitively disadvantaging any one of its competitors (a requirement for the *discriminatory-refusal-to-deal* antitrust doctrine), then no antitrust laws would be violated. Overall, there were three camps to the data packet and Web governance debate. The first camp believed bright-line prohibitions can account for net neutrality violations (e.g., the 2015 Order). The second camp relied on case-by-case enforcement adjudication pursuant to a non-discrimination standard (e.g., the 2010 Order). The third camp also endorsed a case-by-case adjudication, but towards antitrust standards. Here, ISPs should be able to contract with third-party providers in a non-discriminatory, non-exclusive way. But it is difficult to apply antitrust laws when no direct price or sale is made.

Antitrust laws do not consider freedom of expression, access to knowledge, or infringement on privacy rights. Net neutrality advocates focussed on the innovation commons and preserving open access to participate in content and application development and consumption (Wu, 2004, p. 79; Krämer & Wiewiorra, 2009, p. 2). Keeping the Web open as an information exchange of ideas maximized social participation and welfare (Jordan, 2007, p. 429). Antitrust laws focussed on defining harm in terms of higher prices and diminished product quality. Antitrust laws could not address the gatekeeper problem from the control ISPs have over access to information and services as more than 90 percent of citizens live under monopoly or duopoly BIAS (broadband Internet access service) markets.

Net neutrality advocates argued that the *single entity* doctrine under antitrust laws declared that a company could not be held liable for illegal collusion with its subsidiary or parent companies since they are considered one entity, thus making net neutrality antitrust violations easier to evade. Moreover, antitrust enforcement would take too long since it requires detection, investigation, prosecution, a rule of reason analysis, and a multiyear appeals process. Some harmed entities would never be able to afford the cost of litigation and could only rely on other litigants or the FTC undertaking investigations. There would be no antitrust violation if an ISP were throttling innovators' services that did not compete directly with the ISP's service.

Predictability of how laws and regulations apply to ISPs, businesses, and users could derive from bright-line rules. Law constitutes the upholding, limiting the arbitrariness, and keeping state governments accountable for the abuse of rights. These principles are derived from law's predictability and consistency (Bayamlıoğlu & Leenes, 2018, p. 304; see also Waldron, 1989). Bayamlıoğlu and Leenes (2018, p. 304) argue that for law to be legitimized, rules must be "declared with prospective application" and have "generality, equality, and certainty" (see also

Tamanaha, 2004). Fuller (1969) also argues that legal standards should be general, broadcasted widely, future-oriented, non-contradictory, consistent and evenly proportioned, and realistic in enforcement. As well, Weber's (1978) concept of *formal rationality* provides predictability, calculability, and stability in society and sees law as impartial in applying internally-generated rules across like cases. The *formal* element is the rules and guidelines that are internal to a system, and the *rational* element follows calculated criteria equally and consistently applied across all cases.

Brownsword's Law 1.0 is considered a "top-down" regulatory intervention with regulators and regulatees (Brownsword, 2012, p. 251). Coherentists believed in the legal doctrine instead of law's regulatory action and force "existing legal categories" onto new technologies (Brownsword, 2020, p. 32). Under Geist's (2001, p. 1354–1355) enforcement layer, legal and regulatory factions enforce net neutrality principles differently across states. For instance, the State of Rhode Island in its proposed rule making document defined paid prioritization as the management of a broadband network to favour some traffic over other traffic, such as through traffic shaping, prioritization, and resource reservation in exchange for consideration from a third party or to benefit an affiliated entity. Paid prioritization did not include the provision of tiered Internet access service or offerings to a consumer. The State of North Carolina's net neutrality bill required ISPs to disclose information about network management practices, performance characteristics, and commercial terms to help make better-informed decisions. Legal reasoning should be rooted in general principles of law where actors and institutions operate under the enforcement of bargaining transactions. The function of law employs ex-post "correction and compensation" by upholding "legal concepts, categories, and classifications" instead of customized legal responses (Brownsword, 2020, p. 32).

3.3.3 – In what ways do formal regulation frameworks (empirical and normative – ‘according to regulation as it is and ought to be’) govern data packets and the Web?

The FCC’s Office of Economics and Analytics was created to centralize economists and data analysts who were previously uncoordinated throughout the agency. The purpose was to conduct research and analysis on the drawbacks and benefits of proposals, gaps in the data, and findings in geographic information mapping. The FCC claimed that as a state government regulator, it does not put faith in any particular sector of the economy, but rather in the rule of law, including antitrust and consumer protection laws. The U.S. political system is about delegating authority with legislation offloading to regulatory agencies. Some nations required at least one economist to serve on the communications regulator team. According to net neutrality opponents, in the Obama-era FCC, rulemaking was ideological and lacked expert analysis, technicality, and empiricism from an agency like the FTC. On a superficial level, state governments wished to align political, economic, and legal and regulatory directives with the technology created, tested, and deployed by private industry. To strive to achieve this, Internet infrastructure must consider “national and regional norms and values” in its design and build (ten Oever, 2021, p. 57).

The FTC could enforce antitrust laws regardless of industry type and would assess whether and how ISPs engage in unilateral or joint conduct that is likely to harm competition, depriving consumers a free market. The FTC has the authority and ability to enforce antitrust laws on a case-by-case, fact-specific basis in instances of a clear market failure or an abuse of market power. Law 2.0 promotes self-regulatory intervention and signals what acts are “prohibited, permitted, or required” (Brownsword, 2016, p. 102). The FTC is guided by the promotion of consumer welfare and protecting the spirit of competition. Competition is when

output is maximized, price is minimized, and consumers can make their own choices. The FTC observes whether an act or practice causes, or is likely to cause, harm to competition or the competitive process, considering associated efficiencies and business justifications. Law 2.0 uses normative judgements through technological instruments, complemented or supplemented by “normative legal standards” (Brownsword, 2019, p. 42). Regulators guide conduct through “prudential or moral or combined prudential-moral registers” (p. 58). The FTC is less likely to challenge an act or practice under Section 5 of the FTC Act if enforcement of the Sherman or Clayton Act is sufficient to address the competitive harm. The FTC has its antitrust authority, deception and unfairness authority, and the ability to enforce industry promises and codes of conduct. Net neutrality opponents adopt this free market approach rather than favouring state government intervention.

Regulatory compliance costs for new entrants was not a valid reason for a national policy. New ISP entrants would face elevated costs of deploying a network, which would be a much higher cost than compliance costs to keeping the network neutral. Even for ISPs to brand themselves as being *net neutral* is one way to entice users who seek non-paid prioritization services. DeNardis (2014, pp. 148–149; see also Hass, 2007) points out that net neutrality might not be so neutral since it requires lawmakers, regulators, and policymakers to direct how ISPs should not prioritize, block, or throttle data packets. Net neutrality follows normative values. ISPs are not neutral in their decisions to govern data packets equally at the same speed for all users and application and content types. Regulators are certainly not neutral in their decision-making to govern data packets and the Web.

It was unfavourable to impose a broad prohibition on paid prioritization. Prioritizing and blocking flows and throttling speeds of proprietary, and what ISPs deem the most profitable,

traffic is net neutrality's antithesis (Atkinson & Weiser, 2006, p. 47). Since packet switching creates congestion, prioritizing packets based on time, capacity, and payees seems logical to ISPs. Some ISPs were satisfied with a narrow prohibition on paid prioritization, and others were concerned about regulatory creep. Companies may be more reluctant to invest if regulatory measures strand investments. Less regulation of ISPs means greater risk taking and financial investment decisions (Jordan, 2007, p. 429).

Some net neutrality opponents warned that the FTC did not have expertise in telecommunications, data network management practices, or detecting data discrimination. The FTC should endorse and reinforce the FCC's ruling by issuing guidance to state attorneys general and consumer protection authorities. Net neutrality advocates argued that the FTC did not have the tools to ensure a free and open Internet since it has no rulemaking authority. Rules prevent harm to consumers and competition before it happens. Most of the authority the FTC holds is in prohibiting unfair and deceptive trade practices, with no civil penalty authority. Policies geared towards balancing benefits and risks to consumers take precedence over general principles of jurisprudence (Brownsword, 2020, p. 33). The FCC follows a "rule-of-law model" (Weiser, 2008, p. 318), but the FCC can still enforce rights in the absence of laws (Chong, 2007, p. 152). The FCC should adopt adjudicating complaints on a case-by-case basis to see if broadband providers were in line with an Internet reasonable conduct standard. There should be regulatory guidance to the market. FCC rules should adapt to changes in the broadband marketplace, while still allowing the Commission to proscribe specific behaviour (e.g., paid prioritization) that violates openness. Black (2005, p. 1; p. 11) defines regulation as the attempt to alter behaviour against standards to produce outcomes through setting standards, gathering information, and modifying behaviour. Yeung (2015, p. 5) argues that some regulatory

interventions attempt to mitigate harm instead of directly alter behaviour. Yeung (p. 5) defines regulation as “sustained and focused attempts” that aim to produce “outcomes directed at a sphere of social activity” backed by “standards or purposes that affect others.”

When Republican FCC Chairman Michael Powell deregulated the broadband industry, prices increased, usage caps tightened, and there was hardly any competition at faster speeds. Some net neutrality advocates believed that the Web should be treated as a commodity to be paid for each month, just like water and hydro. But in practice, utility pricing plans could be based on time-of-use or tiered pricing plans. Time-of-use prices depend on off-peak, mid-peak, and on-peak hours of the day and night that correlate with different prices. Tiered prices set at a lower rate under a threshold of usage increase once that threshold has been exceeded.

3.3.4 – In what ways do non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web?

Net neutrality advocates argued against ISPs’ use of prioritizing data through discrimination, subsidization, pricing, blocking, and throttling of services, applications, and content through *packet switching*. Packet switching is the dividing of data into small packets for transmission to be reassembled to its end form. Packet switching is one way to control networks and “discourage the growth of applications that may compete” with ISPs (Sandoval, 2009, p. 656). According to net neutrality opponents, since ISPs foot most physical infrastructure and network equipment and management costs, they should reap the rewards of investment.

ISPs would engage in paid prioritization if they were vertical and owned content. ISPs could decide not to host competitors’ content at the same rate. This walled garden approach promoted commercial negotiations to access content, applications, platforms, services, and/or

devices to partners and users. Net neutrality opponents argued that vertical competition where monopolists compete for the market is the more sustainable approach compared to horizontal competition for capturing a larger customer base (Wu & Yoo, 2007, p. 583). Monopolists self-coordinate to increase “interconnection and interoperability” (ten Oever, 2021, p. 65). Net neutrality opponents believed that allowing for paid prioritization would promote innovation and high quality-of-service arrangements for addressing data packet loss and delay with less congestion, securing connectivity, and guaranteeing bandwidth speeds (see Atkinson & Weiser, 2006, p. 47). Data traffic should be shaped for higher quality of service to avoid network congestion and some bandwidth should be allocated to proprietary use (Chong, 2007, pp. 153–154).

Edge providers pay intermediate network providers to reach ISPs and their customers. However, some edge providers invest in content delivery networks (CDNs) to directly connect to ISPs without monetary payment by either party to network operators that offer an exchange of traffic and value to the providers and their customers. If there were shifts in traffic volumes of flows or if traffic or value exchange were uneven, sharing the costs of upgrading capacity or making payment in one direction or the other could occur. These cost shares or payments help ensure that no provider is stuck with funding disproportionate network costs and provide incentives for interconnecting parties to exchange Internet traffic efficiently and predictably. Developers and creators rely on broadband service to reach users, while at the same time users rely on broadband service to consume content and applications (Hahn et al., 2010, p. 8). ISPs are gatekeepers since they provide infrastructure and promote platforms and content through partnerships (Crawford, 2007). Prioritizing packets alleviates congestion; thus, ISPs rely on network congestion to charge higher prices (Economides, 2010, p. 13).

Net neutrality opponents launched a legal complaint against Democratic ASG California Xavier Becerra about the unconstitutional nature of the State of California's attempt to pass net neutrality legislation. The 2018 legislation would compel ISPs to abide by net neutrality principles, thereby undermining the 2017 Order's rules that prohibit states from adopting their own laws. Net neutrality opponents would say that it is impossible or impracticable for ISPs to distinguish between intrastate and interstate communications or to apply different rules in different circumstances. This impossibility or impracticability approach is indicative of Brownsword's (2016, p. 102) Law 3.0 where non-normative measurements of what can and cannot be done are evident. Regulatees act through "practicality/possibility" (Brownsword, 2019, p. 58).

3.3.5 – How does Internet governance reflect U.S. norms, values, and rights in ways that support the expansion of U.S. economic power?

Net neutrality advocates perceived paid prioritization as an unfair market practice that produced inequality for market players and users. Net neutrality opponents perceived paid prioritization as the framework that promoted and strengthened investments into a healthy market economy. Despite these differences, both sides defended the role of the Internet in the market economy.

Net neutrality advocates argued that less competition and innovation may occur if ISPs remained as gatekeepers of content, applications, and service delivery. ISPs sold Internet access to end users and to edge providers access to the ISP's subscribers. Two-sided market theory demonstrates how developers and creators rely on broadband service to reach users, and how users rely on broadband service to reach content and applications (Hahn et al., 2010, p. 8). ISPs are gatekeepers for content regulation since they provide infrastructure and promote platforms

and content through partnerships (Crawford, 2007). This two-sided market might lead to market failure even in the absence (or because of the absence) of ISP market power.

Most businesses who cannot afford service provider deals may experience unreliable or no connectivity. Repealing net neutrality would put profits over innovators, small businesses, and consumers. Net neutrality principles would deter corporate monopolization and gatekeeping of access to entry, where capitalism should be about the private pursuit of profits. But the private pursuit of profits should be fair to competitors and open to accountability when laws and regulations were breached. For instance, platforms could leverage user data to limit competition, calling into question antitrust violations. However, how could a pursuit of profits be fair when the nature of profits pursuit was an effort to exclude?

Title II regulation would allow low-income communities to participate in the Internet market economy. Net neutrality advocates argued that the Internet should sustain open access to participate in content and application development and consumption (Wu, 2004, p. 79; Krämer & Wiewiorra, 2009, p. 2). This Internet space creates fair market competition and free will to access websites (Wu, 2004, p. 74). Net neutrality was the conscience found in capitalism that disallowed large corporate takeovers of small businesses and users. Net neutrality advocates prescribed “equity, freedom of access[,] and a non-hierarchical structure” (Carr, 2016, p. 159). Repealing net neutrality meant reducing opportunities to subsidize broadband programs for low-income users, protecting ISPs’ monopoly over cable services, dismantling corporate merger rules, and eliminating broadband privacy protections. Net neutrality advocates do not want a world where ISPs control the “terms of agreements and can administer rather than merely respond to their environment” (Lowi, 1979, p. 35).

11 months and eight months before the 2017 Order was passed, AT&T, Comcast, and Verizon's CEOs expressed to investors record earnings, and the doubling of network capacity and rollout of fibre and hardware solutions between 2018–2020. Net neutrality advocates argued that there was no evidence that ISPs reported to their investors by law that Title II negatively impacted investments. ISPs invested more in capital expenditures in 2015 than any other time in the past 10-years, whereas capital expenditures decreased since the 2017 Order was implemented. Broadband investments in the aggregate, broadband speeds, and ISP stock prices increased in the two years since the FCC passed the 2015 Order.

Net neutrality opponents claimed that Title II increased stock prices could be attributed to ISPs' business wherewithal and foresight. The 2017 Order would protect Internet openness and promote new economic activity and jobs since it gave companies more stability and freedom to operate. Net neutrality opponents often cited minimal state government intervention, flexibility and innovativeness of the private sector, and link light-touch regulation to innovation. Net neutrality opponents compared the 2015 Order to Obamacare in terms of the Obama administration's power grab and heavy-handed regulation. The state monopolizes a private sector through "financial domination," licensed participation, or accepting risk liability (Lowi, 1979, p. 278). Net neutrality opponents did not want to live in a world where the FCC negotiated with the private sector to give back the monopolized area as a "privilege" based on "merit" (p. 278). ISPs would not invest in innovative business plans that might violate the FCC's undisclosed policies and thus give rise to a cease-and-desist order and forfeiture penalties. Net neutrality opponents focus on the means of transmitting data on a pay-per-use basis (Wu, 2004, p. 79) to promote cheaper pricing options for those who use less data (Atkinson & Weiser, 2006, p. 47).

Net neutrality opponents argued that there should be overwhelming market failure to preemptively regulate ISPs. The source of authority should be market forces, where interference should only occur when market forces fail (Carr, 2016, p. 159). Title II added a risk premium on each investment decision, which reduces future profitability of investments and deters investment. Less regulation of ISPs means greater risk taking and financial investment decisions (Jordan, 2007, p. 429). Becker et al. (2010, p. 519) claimed how regulatory interventions can delay the deployment of new technologies. Net neutrality opponents argued that horizontal competition where competitors compete within a market was unsustainable. Vertical competition where monopolists compete for the market was sustainable. In Schumpeterian competition theory, monopolists replace horizontal competition amongst competitors who offer similar products and services to customers (Wu & Yoo, 2007, p. 583). Competition can breed exclusion. Angel investors were only interested in investing in companies that intended to become monopolies.

Comparing 2013 (the year before President Obama announced his intentions for Title II re-classification) with 2015 (the year the FCC reclassified broadband as a Title II service) showed annual capital investment being slightly lower in 2015 compared with 2013. Domestic capital expenditures by the top 12 ISPs in size declined by 5.6 percent between 2014–2016. However, one study adjusted numbers of two conflicting studies to cover the same ISPs, span the same time, and subtract investments unaffected by the regulatory change, and found that ISP investment fell by three percent in 2015 and two percent in 2016. In 2018, ISP investments rose by \$3 billion, ISPs deployed fibre networks to almost six million new homes, and Internet speeds had increased.

Chapter 4 – Thematic Findings Part II: Technology

4.1 – Chapter Overview

In Chapter 3's economics theme, I analyzed the following four socio-legal narratives generated in NVivo: the defence of the Internet in the market economy, infrastructure investments, paid prioritization, and antitrust and consumer protection laws. The second major theme, technology, will consist of three socio-legal narratives generated in NVivo: state jurisdiction and interconnectivity; problematizing data packets and walled gardens; and the future of 5G and its reliance on paid prioritization. In Chapter 4, the technology theme assesses the unreliability of law to protect consumers and businesses prompted by state and local jurisdictions who respond to federal net neutrality regulations with statewide broadband access bills. Problematizing the partitioning of data transmission with jurisdiction raises a related issue of problematizing data packet (deep packet inspection) and content (walled gardens) differentiation and discrimination. Alas, net neutrality advocates arrive at a crossroads in the future of 5G: the built-in-by-design network slicing and prioritization features are antithetical to net neutrality principles.

In Chapter 4, I will assess narratives of state jurisdiction and interconnectivity, data packets and walled gardens, and the future of 5G and its reliance on paid prioritization. The partisan divide of the net neutrality debates demonstrates how the majority of Democrats argue under the net neutrality advocates side while the majority of Republicans argue under the net neutrality opponents side. Inflamed political rhetoric on both sides is considered normal, but these net neutrality debates were heightened during Republican President Donald Trump's administrative time. The Trump administration sought to reverse many Democratic President Barack Obama-era rules. The politically partisan backgrounds of net neutrality advocate and

opponent actors and institutions/organizations have been and will continue to be identified throughout these debates. Net neutrality advocates and opponents' arguments are organized by issue in Appendix H's *Chapter 4 Summary Table*. Net neutrality advocates and opponents' arguments are juxtaposed side-by-side in the table. The phrase "*No direct response*" in the table is indicated for net neutrality advocates or opponents who did not have a direct response to an issue raised by the other side.

4.2 – Technology: Jurisdiction, Data Packets & Walled Gardens, & 5G

Technology's socio-legal narratives will retrace some of the narratives found in the economics theme and build upon them. The following three narratives generated in NVivo will be analyzed: state jurisdiction and interconnectivity, data packets and walled gardens, and 5G and paid prioritization. In section 4.2.1, I will ask whether and how First Amendment free speech rights are protected when ISPs filter (curate) online content. Next, the discussion about state net neutrality bills is continued about what is and what is not acceptable under state law. To understand jurisdictional rules across states, net neutrality advocates and opponents provide analogies about *pizzas* and *hotels* to consider whether BIAS (broadband Internet access service) should be designated as an *information* or *telecommunication* service.

In section 4.2.2, I analyze how data packets can be differentiated and/or discriminated against based on origin, destination, and applications and content requested and accessed. Deep packet inspection (DPI) fosters good and bad discrimination, where bad discrimination could lead to ISPs controlling the narrative on how users think within their walled gardens. Tribalism can be cultivated from the implied consent users give to ISPs, where content differentiation and discrimination are at the centre of the walled gardens debate. Net neutrality advocates challenged the revisionist history presented by net neutrality opponents with claims of falsifying or glossing

over facts about Title II (i.e., classifying ISPs as *common carriers* and as providing *telecommunication* services) and how data packets were governed in the early days of packet-switching networks.

Lastly, in section 4.2.3, I discuss the promise of 5G, rooted in tested bandwidth speeds, forthcoming innovations, and state government and corporate investments to compete with other state governments and domestic ISPs. With 5G at the helm of future Internet of Things devices, services, and delivery methods, it is nearly technologically impossible to uphold paid prioritization, blocking, and throttling prohibitions. *Network slicing*, a concept that contributes to the understanding of the 5G architecture, is at odds with net neutrality principles. *Network slicing* is comprised of multiple logical and virtual networks for specific applications, services, users, or networks over a shared infrastructure layer. Here, different functionary and performance features address use cases where paid prioritization, blocking, and throttling are utilized. The technology theme ends on a cliff-hanger by asking how well ISP harms (i.e., blocking, throttling, and paid prioritization of data) can be addressed in a post-2015 Order world. The question references when Verizon throttled Santa Clara Fire Department's data plan while fighting California's Mendocino Complex Fire, California's largest recorded wildfire at the time on July 27, 2018.

4.2.1 – Pizzas & Hotels: On State Jurisdiction & Interconnectivity

In section 4.2.1, I will ask whether and how First Amendment free speech rights are protected when ISPs filter (curate) online content. Next, the discussion about state net neutrality bills is continued about what is and what is not acceptable under state law. To understand jurisdictional rules across states, net neutrality advocates and opponents provide analogies about *pizzas* and *hotels* to consider whether BIAS (broadband Internet access service) should be designated as an *information* or *telecommunication* service.

When discussing state jurisdiction, net neutrality opponents pointed to the negative implications of statewide broadband access bills. Imagine an ISP wished to sell a *clean Web* version to users that intentionally blocked adult content, or any content considered inappropriate for that matter. If an ISP advertised a discounted *clean Web* package in this scenario, state governments could sue the ISP and claim that state laws compel the ISP to transmit *all* content regardless of age-appropriateness or moral/ethical-standards alignment with users (Skorup, 2018). Some sites would be blocked or filtered if sites infringed on any laws, such as child sex trafficking or broadcast copyright infringements (e.g., live sports television streaming). Yet, to edit lawful content that may or may not align with each user's parental rules or moral and ethical compasses raises two competing questions. (1) Does filtering content escape the scope of law since the First Amendment protects ISP curation? (2) Does allowing an unedited Web for all content to thrive make a better case for upholding free speech rights? This hypothetical scenario showed that law was unequipped and outmoded to pre-empt free speech harms and address protections related to technological devices, services, and/or delivery methods. After the FCC voted to pass the 2017 Order, the FCC did not foresee that legal actions could be exercised by net neutrality-supporting states to craft broadband access bills.

State laws attempted to frame how ISPs delivered BIAS to users. Multiple states adopted the exact same language in state laws, save for a few modifications, from states that spearheaded this movement of eclipsing FCC 2017 regulations. On April 9, 2018, the State of Oregon became the second state to adopt its own state-wide jurisdictional net neutrality laws behind the State of Washington. Democratic Oregon Governor Kate Brown declared that a business may not contract with an ISP that:

(a) engages in paid prioritization; (b) blocks lawful content, applications or services or non harmful devices; (c) impairs or degrades lawful [I]nternet traffic for the purpose of discriminating against or favoring certain [I]nternet content, applications or services or the use of non-harmful devices; (d) unreasonably interferes with or unreasonably disadvantages an end user[']s ability to select, access and use the broadband [I]nternet access service or lawful [I]nternet content, applications or services or devices of the end user[']s choice; or (e) unreasonably interferes with or unreasonably disadvantages an edge provider[']s ability to make devices or lawful content, applications or services available to end users (*Legal Monitor Worldwide*, 2018).

ISPs had to disclose their network management practices to all businesses and users, but there were some exceptions. Paid prioritization would be allowed by ISPs if the state Public Utility Commission determined it to be in the public's interest and benefit and it did not harm the openness of the Internet. Also, any activity described in (b) through (d) above that the state Public Utility Commission considered the ISP's engagement to be *reasonable network management* would be permitted. *Reasonable network management* is defined as any activity that: "(A) has a technical network management justification; (B) does not include other business practices; and (C) is narrowly tailored to achieve a legitimate network management purpose, keeping in consideration the particular network architecture and technology of the broadband [I]nternet access service" (2018).

Net neutrality opponent Republican Senator Marsha Blackburn introduced a bill just after the 2017 Order was enacted to provide rules against blocking and throttling of content, applications, or services (but not paid prioritization) subject to *reasonable network management*. The bill withheld the FCC's authority to develop policy. *Reasonable network management*

would limit the FCC’s regulatory “role to adjudication of complaints alleging violations of the legislation” and bar it from rulemaking (Stanton, 2017). Network management is *reasonable* if it is “used for and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the” ISP (2017). Furthermore, the bill pre-empted state and local laws from “imposing Internet openness obligations” for ISPs. Some state and local jurisdictions enacted Internet openness obligations for ISPs three months after Senator Blackburn’s bill.

Nine months after Senator Blackburn’s bill was introduced, the State of California passed, what was called by Republican FCC Chairman Ajit Pai, a “radical, anti-consumer Internet ... bill that would impose restrictions even more burdensome than those adopted by the FCC in 2015” (*MediaPost*, 2018b). Chairman Pai called California’s net neutrality legislation “illegal,” and an action only made possible by “nanny-state” legislators to hurt users (2018b). Chairman Pai believed that states could not govern data traffic and that micromanaging traffic created risks for how other states manage traffic flows. According to Chairman Pai, Internet data traffic “doesn’t recognize state lines. It follows that only the federal government can set regulatory policy in this area” (2018b). California’s legislation prohibited ISPs from blocking and throttling traffic, paid prioritization, and zero rating.

In the *American Cable Ass’n v. Becerra* (2018) case, in the U.S. District Court for the Eastern District of California, the plaintiffs complained about violations to the U.S. Constitution after the State of California enacted its own net neutrality legislation. According to the plaintiffs, “[t]his statute was purposefully intended to countermand and undermine ... [the 2017 Order] by imposing on BIAS the very same regulations that the ... [FCC] expressly repealed in ... [2017], despite the fact that both the FCC decision and the federal Communications Act of 1934 ...

prohibit states from taking such action” (2018). The plaintiffs argued that it was impossible for ISPs to distinguish between intrastate and interstate traffic and to adjudicate different rules in different geographic regions. The plaintiffs reminded the District Court that the Internet was a “network of networks” and that ISPs connected with multiple network operators for traffic exchange (*American Cable Ass’n v. Becerra*, 2018). Network operators included backbone providers, content delivery networks (CDNs), and intermediate network providers. In the case of CDNs, content could be stored in various geographic locations. Thus, the plaintiffs implied that a state-centric bill of net neutrality protections would be counteractive since not all 50 states have similar or the exact same net neutrality rules.

Furthermore, there were also multiple paths for an edge provider (e.g., a social media platform) to take on an ISP’s network to provide content to users. The plaintiffs argued that if paid interconnection arrangements were absent between edge providers and ISPs, all network costs would shift to ISPs’ users, skyrocketing monthly billing fees (*American Cable Ass’n v. Becerra*, 2018). Net neutrality opponents claimed that BIAS is an interstate jurisdictional matter, not an intrastate jurisdictional matter. Many edge providers paid intermediate network providers to reach ISPs, but some invested in CDNs to connect directly to ISPs instead. These latter edge providers did not pay ISPs directly (i.e., “settlement-free” interconnection) (2018). In place of monetary payments, an exchange of traffic and mutual value to providers and users for both parties would unfold. If traffic and value were imbalanced, interconnection agreements with payments to one side followed, and sometimes both parties shared the costs of upgrading capacities to account for high traffic volumes and flows. The payments helped to ensure that no one provider would be burdened with disproportionate funding network costs. The payments also “provide[d] market-driven incentives for interconnecting parties to exchange Internet traffic in

an efficient and predictable manner” (2018). Interstate jurisdictional *interconnections* were thus evident in this relationship between providers. Creating jurisdictional laws in the form of state bills would fracture costs of deliveries and partnerships between providers, and resultantly fracture the online experience (content, delivery, and cost-wise) for users. To drill down into the more nuanced *net neutrality advocates versus opponents* arguments, I will assess pizzas and hotels to help make sense of the state jurisdiction and interconnectivity conundrum.

Analogies were used once again in the *Mozilla Corp. v. FCC* (2019) case to help the audience digest complex and intricate information for fear of misunderstanding or not understanding at all what was being argued. The *Mozilla Corp. v. FCC* (2019) U.S. Court of Appeals case was about Petitioners attempting to appeal the FCC’s 2017 Order reclassification of Internet services as *telecommunication* (or *common carrier*) services into *information* services. While the Petitioners were unsuccessful fighting for reclassification, the Appeals Court ruled that state and local laws could enact net neutrality rules. In the *Mozilla Corp. v. FCC* (2019) audio recording on YouTube (CNET, 2019), the Petitioners’ argument was: in the world of *Brand X*, ISPs were in the business of baking pizzas and delivering them; however, in today’s world, most ISPs have given up on baking. The U.S. Supreme Court ruled in the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) case that the FCC, as an administrative agency, had statutory interpretation abilities. At the time, the FCC was able to uphold its classification of BIAS as *information* services. Republican Associate Justice of the Supreme Court of the United States Antonin Scalia, in his dissent, disagreed with the classification of BIAS as an *information* service with an analogy to pizza-making and delivering. Associate Justice Scalia said that once a pizzeria receives an order, the pizzeria bakes the pizza and delivers it. It would be ridiculous for a pizzeria to say that even though it brings pizza to

houses, it does not offer delivery since the delivery is part and parcel of its pizzeria-pizza-at-home service and is integral to its other capabilities. A more appropriate analogy, according to the Petitioners in the *Mozilla Corp. v. FCC* (2019) case was to equate ISPs with Uber Eats delivery drivers. ISPs may have a method for delivering the food (a vehicle, bicycle, scooter) and the means for keeping the food warm (styrofoam containers, insulated bag warmers, the vehicle's heating system), but this did not make ISPs the chefs. ISPs were not primarily in the business of content creation, even though recent mergers have suggested otherwise. ISPs primarily delivered content through their backbone to edge providers. The FCC (somewhat) conceded this point.

In the 2017 Order (Restoring Internet Freedom, 2017, p. 18), the FCC cited AT&T who explained that “[w]hen an end user types a domain name into ... [their] browser and sends a DNS [domain name system] query to an ISP, ... [the ISP] converts the human-language domain name into a numerical IP address, and it then conveys that information back to the end user ... [who] sends a follow-up request for the Internet resources located at that numerical IP address.” The FCC hinted to the fact that information becomes rendered from point to point in a network exchange. The FCC disagreed with Electronic Comment Filing System (ECFS) commenters who claimed that ISPs offered both *information* and *telecommunication* services since all BIAS has a transmission component. The FCC carefully crafted its defensive point as: “an ISP *makes use of* telecommunications – i.e., it provides information-processing capabilities ‘via telecommunications’ – but does not separately *offer* telecommunications on a stand-alone basis to the public” (p. 31; emphasis in original). The FCC continued to suggest that all *information* services carried out functions and features via *telecommunications*. The *telecommunications* component had always been “intrinsically intertwined with the computer processing, information

provision, and computer interactivity capabilities as information service offers” (p. 31). The FCC further explained that BIAS providers did not generally dispute the “via telecommunications” criteria even though it simultaneously argued that it did not provide *telecommunication* services to users. ISPs transmitted traffic between points on networks that the ISP “chose[] to have carried by that transmission link” (p. 32). The FCC’s statement here did not render BIAS as a *telecommunication* service, for if it did, “the entire category of information services would be narrowed drastically” (p. 32). Some *telecommunication* services were inputs into BIAS, “thereby satisfying the ‘via telecommunications’ criteria” (p. 32). The FCC abruptly ended this small clarification by saying, “we need not further address the scope of the ‘telecommunications’ definition in order to justify our classification of [ISPs]” since the implications of the interpretation and applications of Title II were beyond this 2017 Order (pp. 32–33). The FCC’s explanation provided was unfortunately not an informative one.

Net neutrality advocates made the assertion that the 2017 Order’s reliance on DNS (i.e., matching names to numbers of a website) and caching (i.e., the storing of data to load future requests faster and reduce latency) as reasons to reclassify BIAS as an *information* service were arbitrary and capricious since neither were *information* services. In support of the Petitioners in the *Mozilla Corp. v. FCC* (2019) case, EFF (2018, p. 15) (Electronic Frontier Foundation, a non-profit organization that defends civil liberties in the digital world) argued that DNS and caching were implementation mechanisms that “constitute[d] user-directed transmission of information from point to point over the Internet” as a *telecommunication* service. BIAS was a service that provided users “transmission of content of their choosing between points of their choosing” (p. 15). If BIAS was designated as an *information* service, so too should telephone calls. Telephones offered access to automated information or an operator who could generate or act on information

given, and the telephone was not designated as an *information* service (Mozilla Corporation et al., 2018, p. 28). As the Petitioners pointed out, the FCC (Restoring Internet Freedom, 2017, p. 36) also based its BIAS designation as an *information* service on Verizon’s reply comment in that BIAS was “designed with advanced features, protocols, and security measures so that it [could] ... integrate directly into electronic computer systems” (as cited in Mozilla Corporation et al., 2018, p. 28). Surely, telephones had advanced features and could access information processing as well. Judge Patricia Millet asked the FCC whether pressing a sequence of numbers on the telephone when calling the pharmacist was the same as clicking through websites where a “transformation of data” occurred in both instances (Thom Hartmann Program, 2019). The FCC skirted around the question by mentioning that information was transformed through BIAS and ended up not being the same entity after data packets became reassembled.

The Mozilla Corporation et al. (2018) Petitioners argued the *BIAS as a telecommunication service* point further with an analogy about roads-and-hotels. If one did not accept the claim that “all roads designed to lead to hotels are themselves hotels,” an alternative variation to the claim could be made (2018, p. 38). The road *is* a hotel “because the builder has also built rest stops, where drivers can find” amenities (p. 39). The question was asked, “[i]s the mix of road and rest stops so integrated as to make the road a ‘hotel’? The argument may be less extreme, but it is equally unreasonable, if the rest stops bundled with the road have mostly closed, and the drivers now perceive the road simply as a means of getting to the hotels” (p. 39). The case made by the FCC, the respondents, was that its 2017 Order reasonably classified BIAS as a non-common-carrier (*information*) service. As the U.S. Supreme Court ruled in the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) case, the FCC, as an administrative agency, had statutory interpretation abilities and therefore upheld the FCC’s

designation of Internet services as an *information* service. The respondents noted that in the 2005 case, “policy in this technical and complex area [should] be set by the Commission, not by warring analogies” (2005; as cited in USTelecom, 2018, p. 9). In support of the FCC respondents, USTelecom et al. (2018, p. 9) insisted that Mozilla’s road-and-hotels analogy was flawed for two reasons. First, users must remain on the road (i.e., broadband) to enjoy edge providers’ offerings; thus, edge providers were not like hotels where users enjoy offerings after turning off the road. Second, broadband should not be perceived as a road (i.e., as a *telecommunication* service) because broadband offers “capabilities that allow the user to find the best hotel, store her belongings there, retrieve them at any time, and even become her own hotel” (information-processing capabilities) (pp. 9–10).

Net neutrality advocates critiqued how the FCC relied so heavily on ISPs’ ECFS reply comments as evidence for applying Title I classifications (i.e., classifying ISPs as *information service providers* and as providing *information* services). In joint reply comments submitted by the American Civil Liberties Union and the Electronic Frontier Foundation (2017, pp. 7–8), the call for the FCC to rely instead on the expertise of engineers was made. American Civil Liberties Union (ACLU) is a non-profit organization that defends individual rights and liberties guaranteed by the U.S. Constitution and laws and the EFF. The organizations argued that heavy reliance on ISPs’ comments should be scaled back and more serious consideration for decision-making should be based on the thoughts of independent computer engineers in the field. ACLU and EFF brought up that Comcast agreed with the FCC that ISPs change the form or content of the information over networks (e.g., through firewalls to block content) (p. 7). The information’s form was changed since it involved the closure, distribution, and reassembling of data packets (p. 7). ACLU and EFF sharply critiqued the notion that telephony was the only information

exchange that did not alter information's form or content between points. ACLU and EFF also cited a collection of independent engineers, called Internet Pioneers, who explained that changing the data packet structure did not alter the form of the information itself. If one removed a handwritten letter out of a FedEx envelope and carefully placed it in a UPS envelope, the content of the handwritten letter does not change. Internet Pioneers argued that users unknowingly ask their ISPs to transmit the payload of the data packet (i.e., "the data contained within the packet") to their destination as it intended it to be received (p. 8). Internet Pioneers simplified this process as: "the customer is essentially telling the ISP, 'Here is some data. I am sending it to you as the payload in an IP packet, since IP is the language our computers have agreed to use so that I can tell you where I want my data to go. I don't care if you repackage my data (the payload) using other protocols along the way, so long as you don't change the form of the payload itself. I need the payload to reach its destination unchanged, but I don't care how it gets there'" (p. 8).

The prioritization of data packets through deep packet inspection (DPI) is another related contention in the technology-themed net neutrality debates. The arguments in the next section move beyond the *information versus telecommunication services* debate towards how data packets can be differentiated and/or discriminated against based on origin, destination, and applications and content requested and accessed. Yet another related contention is the problematization of walled gardens ISPs build, which foster tribalism in today's content-streaming world. Content, not just data packet, differentiation and discrimination are contested during the period of the 2017 Order.

4.2.2 – Problematizing Data Packets & Walled (*Secret?*) Gardens

In section 4.2.2, I analyze how data packets can be differentiated and/or discriminated against based on origin, destination, and applications and content requested and accessed. Deep packet inspection (DPI) fosters good and bad discrimination, where bad discrimination could lead to ISPs controlling the narrative on how users think within their walled gardens. Tribalism can be cultivated from the implied consent users give to ISPs, where content differentiation and discrimination are at the centre of the walled gardens debate. Net neutrality advocates challenged the revisionist history presented by net neutrality opponents with claims of falsifying or glossing over facts about Title II (i.e., classifying ISPs as *common carriers* and as providing *telecommunication services*) and how data packets were governed in the early days of packet-switching networks.

DPI is a double-edged sword. In a CRS report prepared for members and committees of Congress by Angele Gilroy (2019b, p. 13), a Specialist in telecommunications policy, DPI was referred to as “a network management technique that enables network operators to inspect, in real time, both the header and the data field of the packets.” Gilroy cited that the header contains the source and destination addresses and the data field includes the message content and source application identity. Also, DPI allows for network operators “to identify the origin and destination points of the data packets” and “to determine the application used and content of that packet” (p. 13). The network operator could then differentiate or discriminate data packets. According to Gilroy, discrimination is not always viewed in such a negative light. DPI could be used in “filters and firewalls to detect and prevent spam, viruses, worms, and malware[,] ... [and] used to gain information to help plan network capacity and diagnostics, as well as to respond to law enforcement requests” (p. 14). Still, net neutrality advocates feared that this

collected information could be exploited to discriminate against competitors and services by routing a network operator's data packets along a faster priority path or actively throttling competitors' traffic (p. 14). Gilroy reassured that the management tool itself was not inherently destructive, but the potential behaviour behind privileged information gained on data packets could be. Gilroy pointed out that the crux of the policy debate was to question how to develop policy that "permits some types of discrimination ... that may be beneficial to network operation and improve the user experience while protecting against what would be considered ... anti[-]competitive discrimination" (p. 14).

The walled garden, secret in its build and enveloping in nature, was also cause for concern for net neutrality advocates. Branson Matheson, Senior Technical Lead at Cisco, said that giving ISPs the ability to set up walled gardens was akin to giving ISPs the keys to control the narrative on how we think (Cloud Unfiltered, 2017). On an NPR broadcast, on the day the FCC voted to repeal on December 14, 2017, Mitchell Baker, Executive Chairwoman and CEO of Mozilla, ran through a handful of possibilities the 2017 Order could allow for: "[w]hat happens if you express political views that someone doesn't like? Does your site disappear? Does it slow down? That sounds melodramatic, but the rules allow these sorts of things" (*NPR Morning Edition*, 2017). Net neutrality advocates believed the FCC's light-touch regulations would encourage ISPs to engage in content-based control. By contrast, Mercatus Center at George Mason University Research Fellow, Brent Skorup (2017, p. 11), argued that the FCC could not penalize ISPs from expressing favouritism of content, just as Google favouring goods and services over others through advertisements was protected expression. It would be contrary to the First Amendment to "limit ISP curation" (p. 11).

In Democratic FCC Commissioner Mignon Clyburn’s dissenting statement in the 2017 Order, she offered a brief *misreading of regulatory history* lesson. In the 60s and 70s, packet-switched precursors to Internet access were under Title II designation (Restoring Internet Freedom, 2017, p. 226). In 1966, the FCC released its first Notice of Inquiry regarding the “interdependence of computers and common carrier telecommunications services,” which would have implications for packet-switched networks (p. 226). In the early 1970s, AT&T almost purchased ARPANET (the first packet-switching network and first of its kind to utilize TCP/IP (Transmission Control Protocol / Internet Protocol)) to operate it as a *telecommunication* service. AT&T abandoned the idea and developed its own packet-switching network over a decade later. As a result, some ARPANET developers founded Telenet Corporation. In 1974, Telenet was approved with an FCC licence to operate on a commercialized common carrier basis. Commissioner Clyburn narrowly pointed out that today’s FCC was not returning to Title I designations over packet-switched networks, as the FCC Republican-majority incorrectly rationalized in the 2017 Order (pp. 226–227). In fact, DSL (digital subscriber line) services had Title II designation until 2005. And presently, “hundreds of wireline carriers continue to offer broadband as a Title II service” (p. 227). The FCC began deregulating Internet transmission in the early 2000s. The FCC never had a clear rationale on how to handle “the transmission component that was clearly a telecommunications service” when it relied “wholly on intermodal competition for fixed services” (p. 227). *Intermodal* competition refers to the exact same services offered by different technology formats (e.g., telephone landline calling in competition with voice-over-Internet-protocol (VoIP) calling). By contrast, *intramodal* competition refers to competition among the exact same technologies that offer the exact same services (e.g., HBO

Max streaming in competition with Paramount+ streaming). The bottom line for Commissioner Clyburn was that characterizing the FCC's history "as a deregulatory nirvana" was false (p. 227).

Consumers Union (2018, p. 10), a non-profit organization that strived to create a fair and just marketplace for users and businesses and a publisher of the monthly magazine *Consumer Reports*, also gave a history lesson about packet-switching and Title II. Packet-switching would break information data down into multiple data packets and send the data across different pathways to be reassembled to the designated address. No dedicated circuit was needed, like in a phone-to-phone connection. Circuit switching is like "hiring a courier to take a book manuscript to the publisher. Packet-switching is more like mailing it to the publisher one page at a time" in a split-second (p. 10). The FCC classified BIAS (broadband Internet access service) under Title II designation since DSL carried both data and voice transmissions simultaneously along the circuit-switched and packet-switched network splits (pp. 10–11). In 1998, the FCC concluded that packet-switching was a transmission technology, which came with an unbundling requirement: ISPs "could set up ... [its] own information services to provide [I]nternet access over DSL, but ... [it] had to offer competing ISPs non-discriminatory access to network elements and the same services the telephone companies' ISPs used" (p. 11). At this time, the FCC enforced "principles of open access and non-discrimination" through Title II authority (p. 11). Net neutrality advocates today called out the FCC for crafting its revisionist history and falsifying or glossing over the facts about Title II and how data packets were governed.

Technology has a regulatory past, but technology is almost always geared towards imagining the future. And the future of technological goods and services might be hurt by the regulatory past or proposed regulations that incorporate bits and bytes of past regulations. Net neutrality opponents channelled this fear. For instance, Republican Senator Roger Wicker (163

Cong. Rec. S. 3025, 2017) connected Title II designations as being “devised during the depression era” and that there should be “21st-century rules for 21st-century technology.” A utility-style framework was outmoded, outdated, and framed “during the Bell telephone monopoly of the depression era” (2017). The Internet revolution began because the federal government “stayed out of the way, supporting a ‘light[-]touch’ regulatory framework where innovation, competition, and investment could truly survive and thrive” (2017).

With new technology comes new laws and regulations. As cybersecurity experts tell us today, 5G technology will be 100 times faster than 4G/LTE data speeds. 5G indeed far surpasses 4G/LTE and most residential home broadband speeds. The monumental shift from stationary computing devices and home broadband to mobile devices connecting to cellular networks will “open up all new laws ... [and] regulations[.] ... So, they got to get it right now or they’re going to really mess it up downstream” (Scott Schober, 2017). According to Congressman Tom Marino (*Net Neutrality and the Role of Antitrust*, 2017b), who spoke 44-days before the FCC voted to repeal the 2015 Open Internet Order, 5G should “advance competition” and “connect a new array of ‘Internet of Things’ ... devices, such as network-connected agricultural monitoring devices, autonomous vehicles, and medical monitoring devices.” 5G requires a prioritization on networks “that require extreme responsiveness” (2017b). By this statement, should 5G technology be banned in state and local jurisdictions who include paid prioritization prohibitions into its bills? Innovation and competition may be harmed “by the regulatory overreach of a future administration” (2017b). Thus, the future of 5G hangs in the balance of the net neutrality debates since network slicing and prioritization are key features that comprise its capabilities.

4.2.3 – The Future of 5G & the Revenge of Paid Prioritization

In section 4.2.3, I discuss the promise of 5G, rooted in tested bandwidth speeds, forthcoming innovations, and state government and corporate investments to compete with other state governments and domestic ISPs. With 5G at the helm of future Internet of Things devices, services, and delivery methods, it is nearly technologically impossible to uphold paid prioritization, blocking, and throttling prohibitions. *Network slicing*, a concept that contributes to the understanding of the 5G architecture, is at odds with net neutrality principles. *Network slicing* is comprised of multiple logical and virtual networks for specific applications, services, users, or networks over a shared infrastructure layer. Here, different functionary and performance features address use cases where paid prioritization, blocking, and throttling are utilized. The technology theme ends on a cliff-hanger by asking how well ISP harms (i.e., blocking, throttling, and paid prioritization of data) can be addressed in a post-2015 Order world. The question references when Verizon throttled Santa Clara Fire Department’s data plan while fighting California’s Mendocino Complex Fire, California’s largest recorded wildfire at the time on July 27, 2018.

Roslyn Layton, a technology researcher at Aalborg University Center for Communication, Media and Information Technologies, told *The Daily Caller* that since repealing Title II, none of the *Chicken-Little* “predictions of Title II proponents, Senate Democrats, and other regulatory advocates” came true (White, 2019). After the FCC repealed the 2015 Order, journalist Chris White (2019) reported that the Internet had not imploded nor had it slowed down for users, nor did users receive information one word at a time. Broadband download speeds increased to nearly 40 percent and upload speeds to 22 percent in December 2018, according to speed tests conducted by Ookla and cited by a U.S. broadband report (2019). According to White’s news article, 5G uses higher frequency waves, allowing network towers to send and

receive more data faster. Layton said that if the Title II designation remained, “we would have one network for which the FCC would set the price and speed, and one whose cost taxpayers would have to bear” (2019). For perspective on the 5G world race, Chinese companies Huawei and ZTE “outspent the U.S. on 5G buildup by \$24 billion and ha[d] built 350,000 new wireless towers since 2015, according to a report Deloitte Consulting published in 2018” (2019). In that same period, the U.S. built 30,000 towers.

Net neutrality opponents argued about the disconnect between net neutrality and 5G *network slicing*. The FCC Technological Advisory Council 5G IoT Working Group (2018, p. 9) defined a *network slice* as “a logical (virtual) network customized to serve a defined business purpose or customer, consisting of an end-to-end composition of all the varied network resources required to satisfy the specific performance and economic needs of that particular service class or customer application.” *Network slicing* can be described as multiple logical and virtual networks for specific applications, services, users, or networks over a shared infrastructure layer, where some applications require different performance features, such as latency or prioritization of data packets. Thus, to allow for network slicing to provide different functions and performance features to address specific use cases for users and Internet performance needs is to allow for paid prioritization, blocking, and throttling. According to Republican Congressman Greg Walden, “applying net neutrality to these new 5G networks would cripple the performance” (165 Cong. Rec. H. 3224, 2019). 5G’s network slicing capabilities would “allow operators to provide different services with different performance characteristics to address specific use cases.” Congressman Walden asserted that new innovations in “autonomous vehicles, augmented reality, innovations in healthcare delivery and education,” along with accelerating everything we already do on the Web “would be simply impossible ... with these heavy-handed proposals that will

result from [T]itle II power being given to bureaucrats in Washington” (2019). The Democratic Party members’ proposed bills on 5G were the heavy-handed proposals referred to. In another hearing, the Congressman discussed some of the Internet layers to set up his argument about why prioritization was integral to the functioning of the Internet (*From Edge to Core*, 2018a).

Congressman Walden professed that there were application layers that connected to encrypted data, a transport layer that rendered the data transferable, and the network layer that identified the data packet routing sequence. Some “[d]evices, software, Wi-Fi routers, and content delivery networks” managed traffic, too (2018a). Prioritization was about queuing bits of data over others to ensure data packets arrived at their destinations on the fastest, most efficient route possible. A ban on paid prioritization would disrupt the operation of most services and applications (2018a).

Depending on the type of application (e.g., telehealth monitoring) users are accessing, certain applications utilize certain slices (segments) of radio waves of a network. Each slice (segment) of radio waves has specific performance features (e.g., a higher prioritization of data packets). Each performance feature associated with the slice (segment) of radio waves comes at varied price points. Thus, hospitals may pay higher monthly fees to access a telehealth monitoring application that requires a higher prioritization of data packets and ultra-low latency to ensure uninterrupted real-time patient diagnostics.

Net neutrality advocates retraced the problem of choice as it related to paid prioritization and competition. The Coalition for Internet Openness (Roy, 2017, p. 3), a non-profit organization that advocated for a legal environment that preserves and extends the openness of the Internet, submitted an ECFS (Electronic Comment Filing System) reply comment one week prior to the FCC voting to pass the 2017 Order. The Coalition recognized the Draft Order’s acknowledgement that there was still a problem of choice between ISPs. The lack of choice leads

to users considering paying for higher tiered service plans and accepting the walled gardens enveloping around them. According to the Coalition, “[a]bout 40% of households have only one wireline provider of broadband access at downlink speeds of 25 Mbps or more, and another 9% have no such provider at all. Even where there is a choice, it is typically between only two wireline providers (about 45% of households have a choice of only two providers, while only 6% have a choice of three or more providers)” (p. 3). Furthermore, Gigi Sohn (Georgetown Law, 2018), who held a senior staff position at the FCC (2013–2016), discussed data caps as part of paid prioritization and walled gardens. If a user reached their allotted monthly data cap, their ISP would still allow them to access that ISP’s streaming service application. The user would not be able to video stream Netflix for the rest of the month. Instead, the user would be able to stream HBO Max since they are an AT&T customer (AT&T owns HBO after acquiring Time Warner in 2018). Streaming videos on HBO Max would not count towards a customer’s monthly data cap (i.e., zero rating). For Sohn, ISPs spin a web of walled garden control secretly to divert the attention away from certain services towards their own or partnered services. Net neutrality advocates argued that this is territorial in practice. ISPs set up camps of content through mergers and partnerships to win the users attention war. Opening networks up to competitors was a key pathway forward to fairness (2018). The aim for net neutrality advocates was to disbar paid prioritization, which would then lead to disbaring blocking and throttling.

If a blocking, throttling, and/or paid prioritization scenario cropped up, say if Verizon throttled Santa Clara Fire Department’s data plan while fighting California’s Mendocino Complex Fire, then net neutrality advocates may have grounds to exclaim, *this is what happens when net neutrality protections vanish!* Verizon did throttle the Santa Clara Fire Department’s unlimited data plan, forcing them to upgrade to a more expensive service plan. Law and

communications Professors Catherine Kissée-Sandovál, Allen S. Hammond, Carolyn M. Byerly, and Anthony Chase claimed that “firefighters rely on real-time information systems (‘GIS’ [geographic information system]) mapping to monitor fires and coordinate emergency responses, track information, and save lives” (Professors, 2018, pp. 11–12). The professors speculated that the FCC’s 2015 Order would have allowed the FCC to consider “a complaint that an ISP unreasonably interfered with and disadvantaged public safety data transmissions – whether GIS mapping or live video of a fire or flood’s path” (p. 12). The Mendocino Complex Fire ignited almost eight months after the 2017 Order was enacted. How well could ISP harms (i.e., blocking, throttling, and paid prioritization of data), like in this case, be addressed in a post-2015 Order world?

4.3 – Chapter Summary & Discussion

4.3.1 – How do net neutrality advocates and opponents frame their discursive strategies?

Net neutrality advocates and opponents fought over how data packets were delivered and the connection to BIAS (broadband Internet access service) classification with analogies of pizzas and hotels. Net neutrality advocates argued that pizzerias brought pizzas to houses and, therefore, delivery was part and parcel of their pizzeria-pizza-at-home service. A more accurate analogy though was to think of ISPs as Uber drivers: ISPs had methods for delivering the food and to keep it warm, but ISPs were not the chefs. Net neutrality opponents argued that BIAS was an *information* service, not a *telecommunication* service, based on the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) court case ruling.

Net neutrality advocates also argued that the road (i.e., broadband) became a hotel (edge provider) since the builder constructed rest stops where drivers could find amenities. If the rest stops were bundled with the road, did the driver perceive the road as a hotel? Net neutrality

opponents did not accept this analogy for two reasons: (1) users had to remain on broadband to enjoy edge providers' offerings, so edge providers were not hotels, and (2) broadband was not a road since it allowed users to find the best hotel, store belongings, retrieve them, and become their own hotel with *information* processing capabilities. The pizza and hotels analogies were straightforward enough to see how opposing sides understood how data packets should be perceived as a Title I or Title II service.

Recall that Title II in the Communications Act of 1934 classified ISPs as *common carriers* and as providing *telecommunication* services, whereas Title I classifies ISPs as *information service providers* and as providing *information* services. *Telecommunication* services refers to the "transmission between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received" (Telecommunications Act of 1996, U.S. Code 47 Sec. 153). By contrast, *information* services means that the provider offers the "capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service" (Telecommunications Act of 1996, U.S. Code 47 Sec. 153).

Net neutrality advocates sharply pointed out Title I and II classifications differences for critiquing net neutrality opponents' mischaracterization of the Internet as a deregulatory nirvana. Prior to the commercial Internet, in the 1960s and 1970s, packet-switching networks were under Title II classification where computers and common carrier services were now interdependent. Furthermore, ARPANET and Telenet were packet-switching networks, where the latter operated

on a common carrier basis, and DSL (digital subscriber line) services operated under a common carrier basis until 2005. Some wireline carriers today offer broadband as a Title II service. The transmission component of Title II was tied to DSL since it carried data and voice transmissions simultaneously, and the FCC found in 1998 that packet-switching was a transmission technology with an unbundling requirement. The unbundling requirement meant that ISPs could set up their own *information* services to provide BIAS, but had to offer competing ISPs non-discriminatory access to network elements and the same services the telephone companies' ISPs used.

Why did net neutrality opponents never credit the fact that packet-switching networks were classified under Title II? Perhaps by not acknowledging the classifications in the 2017 Order, in a courtroom, or in mainstream media, net neutrality opponents would end this line of debate simply by not engaging. Instead of outright denial of Title II classification, a denial to acknowledge ended the debate. The classifications mattered to determine whether and how certain regulatory bodies could or could not regulate ISPs, but did bringing up classifications advance the argument? I argue that court rulings that determined whether the Internet was an *information* or *telecommunication* service mattered more than how packet-switching networks were perceived in the early days. The type of regulation applied by regulators came from the classification settled on through legal outcomes.

Net neutrality advocates discussed how ISPs change the form or content of the information over networks since it involves the closure, distribution, and reassembling of data packets. Changing the data packet structure did not alter the form of the information itself. Net neutrality advocates cited how if one removed a handwritten letter from one envelope to another, the content did not change. This analogy was further simplified by explaining that customers were telling their ISP that data was being sent in an IP (Internet Protocol) packet to an address.

Customers did not care if ISPs repackaged the data using other protocols if the data remained unchanged.

Net neutrality advocates also briefly discussed the perils of the walled garden that ISPs have been curating with content and services. Net neutrality advocates sometimes made bold claims and predictions about what repealing net neutrality principles would mean for how consumers could navigate online culture. ISPs were being given the ability to control how consumers think. Consumers' personal websites could be blocked or throttled if political views were misaligned with their ISPs' political views. And light-touch regulations would encourage ISPs to engage in content-based control. These three examples were contested by net neutrality opponents, who said that the FCC could not penalize ISPs from expressing favouritism of content since it was protected expression. Thus, it would be contrary to the First Amendment to limit ISP curation. Freedom of expression was often a clash of rights between both sides. Some of the bold claims and predictions by net neutrality advocates were perceived to be *Chicken-Little*-esque. Net neutrality opponents believed that net neutrality advocates were warning of bleak outcomes without any justifications and that none of the predictions about the Internet imploding, slowing down, or receiving information one word at a time came true. However, both sides were guilty of making broad sweeping statements about what regulators and ISPs would or would not do if net neutrality principles were or were not instituted. Powers and Jablonski (2015, pp. 4703–4709) argue that the Internet freedom narrative has little to do with the foundational principles of access, movement, expression, and speech. Both net neutrality advocates and opponents should avoid these freedom of expression statements and argue for actual policies that directly relate to such values.

4.3.2 – In what ways do formal law frameworks (empirical and normative – ‘according to law as it is and ought to be’) govern data packets and the Web?

Geist’s (2001, p. 1354) enforcement layer examines how courts and other legal and regulatory factions enforce (non-) net neutrality principles across state jurisdictions. Net neutrality advocates argued that access to data and the exchange of information should be open (DeNardis, 2016), free (Wu, 2004), non-exclusionary (Mueller, 2012), and non-discriminatory (Anderson, 2014). Different states attempted to adopt their own laws to override the FCC’s 2017 Order. For example, the State of Oregon ruled that ISPs must not: (a) engage in paid prioritization; (b) block lawful content, applications or services, or non-harmful devices; (c) impair or degrade lawful Internet traffic for discriminating content, applications or services, or non-harmful devices; (d) unreasonably interfere or disadvantage consumers’ abilities to select, access, and use the BIAS (broadband Internet access service) or lawful Internet content, applications or services, or devices of their choice; or (e) unreasonably interfere or disadvantage edge providers’ abilities to make devices or lawful content, applications, or services available to consumers. However, the state Public Utility Commission could deem paid prioritization necessary if it fell under the public’s interest and benefited Internet openness. ISPs were permitted to break rules (b), (c), and (d) above if the activity was considered to be *reasonable network management*. This must include a technical network management justification, must not include other business practices, and must achieve a legitimate network management purpose under the network architecture and technology of BIAS. Net neutrality opponents do not look kindly on forcing legal categories onto technology (Brownsword, 2020, p. 32). Law 1.0 as this top-down intervention with state regulators with faith in law’s internal consistency does not map well onto the every-changing technological feats the BIAS industry has to offer (Brownsword,

2012, p. 251). Even though the 2017 Order was a top-down legal and regulatory intervention, it gave ISPs creative freedom to operate their services as they saw fit. In other words, the 2017 Order was still a legal and regulatory intervention, but one that promoted less legal and regulatory interventions on ISPs.

The State of California's net neutrality bill prohibited ISPs from blocking and throttling traffic, paid prioritization, and zero rating. Net neutrality opponent plaintiffs in the *American Cable Ass'n v. Becerra* (2018) case complained that the State of California's net neutrality legislation imposed on BIAS regulations the FCC repealed in its 2017 Order, despite how the FCC decision and Communications Act of 1934 prohibit states from taking such action. Net neutrality opponents called state centric net neutrality bills radical, anti-consumerist, and more imposing in their restrictions than the FCC's 2015 Order. The bills were deemed illegal since only the federal government could set regulatory policy in this area, and were only made possible by nanny-state legislators to harm consumers. Governing data packets within and across states was impossible and could congest traffic altogether. Data packets simply cannot recognize and obey jurisdictional laws and regulations. Network operators included backbone providers, content delivery networks (CDNs), and intermediate network providers. With CDNs, content could be stored in various locations. Implementing different net neutrality legislation across different states made the enforcement of state-centric laws nearly impossible.

States that developed their own net neutrality legislation were monopolizing the BIAS industry by bargaining with interest groups how to engage with partners, rivals, and consumers when it comes to governing data packets and the Web (see Lowi, 1979, p. 278). Net neutrality opponents believed that states that adopted net neutrality legislation would be inconsistent and unevenly proportioned across the U.S., unrealistic in enforcement, and contradictory in what was

technologically feasible (see Fuller, 1969). Weber's (1978) formal element was upheld in states' net neutrality legislation in that rules were internal to their own closed system, but Weber's rational element was not upheld in that the rules were not applied equally and consistently across the entire nation. Data packets traversed state lines, so how could state jurisdiction bind them?

In the *Mozilla Corp. v. FCC* (2019) case, the net neutrality advocate Petitioners failed to appeal the FCC's 2017 Order's reclassification of BIAS as *telecommunication* services into *information* services. However, the Appeals Court ruled that state and local laws could enact net neutrality rules. ISPs should be thought of as Uber Eats delivery drivers since they can deliver the food and keep the food warm, but were not chefs. ISPs primarily delivered content through their backbone edge providers. In the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) case, Republican Associate Justice of the Supreme Court of the United States Antonin Scalia ridiculed the decision to reclassify BIAS as an *information* service with a pizza-making and delivery analogy. A pizzeria would never say that even though it delivers a pizza to houses that it does not offer delivery since delivery is part of its pizzeria-pizza-at-home service and is integral to its other capabilities. The landmark case reinstated cable broadband services under Title I (Nuechterlein & Weiser, 2013, pp. 194–195).

4.3.3 – In what ways do formal regulation frameworks (empirical and normative – ‘according to regulation as it is and ought to be’) govern data packets and the Web?

Net neutrality advocates claimed that governing data packets and the Web was never a deregulatory and decentralized nirvana to exchange ideas and communicate. The concept of regulation attempts to mitigate harm and alter behaviour to achieve socially-desirable outcomes supported by a standard (Yeung, 2015, p. 5). In 1966, the FCC released its first Notice of Inquiry on the interdependence of computers and common carrier *telecommunications* services. In the

early 1970s, AT&T almost purchased ARPANET (the first packet-switching network and first of its kind to utilize TCP/IP (Transmission Control Protocol / Internet Protocol)) to operate it as a *telecommunication* service. AT&T developed its own packet-switching network over a decade later, and Telenet Corporation was founded instead. In 1974, Telenet was approved with an FCC licence to operate on a commercialized common carrier basis.

The FCC began deregulating Internet transmission in the early 2000s. In 2002, the FCC's Cable Broadband Order claimed that cable broadband service fell outside of Title II *telecommunication* services and within Title I *information* services. In 2003, the Ninth Circuit ruled that cable broadband service is classified under both Title II and Title I. But, in 2005, the Ninth Circuit reinstated cable broadband services under Title I in the *National Cable & Telecommunications Ass'n v. Brand X Internet Services* case (Nuechterlein & Weiser, 2013, pp. 194–195). The transmission component, in the eyes of net neutrality advocates, was a *telecommunications* service since it relied on intermodal competition (i.e., the same services offered by different technology formats). The FCC was not returning to Title I designations over packet-switched networks since DSL (digital subscriber line) services had Title II designation until 2005, and today hundreds of wireline carriers offer broadband as a Title II service. Jumping to 2015, the FCC's Open Internet Order reclassified ISPs as common carriers under Title II classification and § 706 of the Telecommunications Act of 1996 and prohibited blocking, throttling, and paid prioritization of data packets (Terry & Memmel, 2020, pp. 173–174). The 2017 Order repealed the 2015 Order by relinquishing the FCC's investigative authority over ISPs' practices and deeming BIAS an *information* service.

Net neutrality advocates had no recourse for the 2005 U.S. Supreme Court ruling in redirecting the course of Title I in favour of Title II classification. And even though the 2015

Order declared a change from Title I to Title II classification of BIAS (broadband Internet access service), the 2017 Order repealed Title II. Federal and state government regulators' authoritative reach and jurisdiction were also shaped by technologic capability arguments. The 2017 Order was a market and technology-first approach to ISP regulation. Net neutrality opponents argued that a utility-style regulatory framework was outmoded from the Bell telephone monopoly of the depression era. The Internet revolution began because the federal government minimized its role through light-touch regulation where innovation, competition, and investment could flourish. This instrumental approach to technology allows the private sector to research and develop solutions through its own innovative means (Carr, 2016, p. 192). Self-regulatory intervention by the private industry is considered ideal under Law 2.0 (Brownsword, 2012). Legal standards are still at play but guided by norms through technological instruments (Brownsword, 2019, p. 42). Regulation should align with technologies. Over-regulation may stifle the design and application of technologies and under-regulation may pose risks to actors and institutions (Brownsword, 2020, p. 21).

4.3.4 – In what ways do non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web?

According to net neutrality opponents, many edge providers paid intermediate network providers to reach ISPs, but some invested in CDNs (content delivery networks) to connect directly to ISPs. These latter edge providers work with ISPs to exchange traffic and mutual value. Data traffic is shaped for higher quality of service to avoid network congestion and some bandwidth should be allocated to proprietary use (Chong, 2007, pp. 153–154). If traffic and value were imbalanced, interconnection agreements with payments to one side followed, and

sometimes both parties shared the costs of upgrading capacities to account for high traffic volumes and flows. The payments helped to ensure that no one provider would disproportionately fund network costs. Two-sided market theory illustrates how developers and creators rely on broadband service to reach users, and how users rely on broadband service to reach content and applications (Hahn et al., 2010, p. 8). ISPs are gatekeepers for content regulation since they provide infrastructure and promote platforms and content through partnerships (Crawford, 2007). Net neutrality opponents believed that users and platforms who use excessive amounts of data on a shared network should pay full cost for goods and services consumed. This would promote greater broadband infrastructure investment and cheaper pricing options (Atkinson & Weiser, 2006, p. 47). Prioritizing packets based on time, capacity, and payees seems the most efficient way to alleviate congestion from packet switching. Data packets are commodified by ISPs who rely on network congestion to charge higher prices for tiered access (Economides, 2010, p. 13).

When end users type a domain name into their browser and sends a DNS (Domain Name System) query to an ISP, the ISP converts the human-language domain name into a numerical IP (Internet Protocol) address, and conveys that information to the end user who sends a follow-up request for the Internet resources located at that numerical IP address. The ICANN (Internet Corporation for Assigned Names and Numbers) was born in 1998 and “grew out of a U.S. government commitment to transfer the policy and technical management of the DNS to a non-profit corporation based in the U.S. with global participation” (ICANN, 2022). Net neutrality advocates argued that DNS (i.e., matching names to numbers of a website) and caching (i.e., the storing of data to load future requests faster and reduce latency) constituted user-directed transmission of information from point to point over the Internet as a *telecommunication* service.

Telecommunication services refers to the “transmission between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received” (Telecommunications Act of 1996, U.S. Code 47 Sec. 153). Telephones also offered access to automated information or an operator who could generate or process information given, yet the telephone was not designated as an *information* service. Telephony altered information’s form and content between points.

In the past, the FCC enforced principles of open access and non-discrimination through Title II authority. DSL (digital subscriber line) carried data and voice transmissions simultaneously along circuit and packet-switch network splits. Packet-switching was considered a transmission technology where ISPs could set up their own *information* services but had to offer competing ISPs non-discriminatory access to networks. On the other hand, for net neutrality opponents, an ISP provides information-processing capabilities via telecommunications, but does not separately offer telecommunications. The *telecommunications* component is intertwined with the computer processing, information provision, and computer interactivity capabilities as *information* service offers. According to the Telecommunications Act of 1996 (U.S. Code 47 Sec. 153), *information* services means that the provider offers the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.” Net neutrality opponents argued that protocols are controlling logics and rules and are not neutral since they direct “rules of engagement” to create networks by arranging data (Stalder, 2006, pp. 134–135; Galloway, 2004, p. 30). The private Internet governance regime commits to self-coordination

through institutions to “increase interconnection and interoperability between networks and devices” (ten Oever, 2021, p. 65).

Net neutrality opponents believed that ISPs change the form or content of the information over networks through the closure, distribution, and reassembling of data packets. Net neutrality state bills would fracture costs of deliveries and partnerships between providers and content, delivery, and cost for users. However, net neutrality advocates claimed that changing the data packet structure did not alter the form of the information itself. The customer tells the ISP to send the data payload in an IP packet, as it makes no difference whether ISPs repackage the data payload using other protocols. Packet-switching breaks information down into multiple data packets and sends them across different pathways to be reassembled.

Net neutrality advocates argued that all roads (broadband) that lead to hotels (edge providers) are themselves hotels because there are also rest stops. If the rest stops bundled with the road closed, drivers perceive the road as a means of getting to the hotels (i.e., as *telecommunication* service). Net neutrality opponents believed that drivers must remain on the road (broadband) to enjoy edge providers’ offerings. Broadband is not a road because broadband offers capabilities that allow the user to find the best hotel, store and retrieve belongings, and even become a hotel (i.e., an edge provider with information-processing capabilities). Many of the arguments by net neutrality opponents and advocates were about the (im)possibilities regarding technological management of governing data packets and the Web. Law 3.0 includes non-normative measurements of what can and cannot be done (Brownsword, 2016, p. 102). Proposals for using technological management are to be promulgated, not what is prohibited, permitted, or required by normative judgments embedded in rules (p. 119). Regulators target

patterns of behaviour through technology to “channel regulatees in desired ways” or put them in certain “contexts” to act through “practicality/possibility” (Brownsword, 2019, p. 58).

One specific network management technique that enables network operators to inspect the header and the data field of packets was deep packet inspection (DPI). The header contains the source and destination addresses and the data field includes the message content and source application identity. DPI allows for network operators to identify the origin and destination points of the data packets and to determine the application used and packet content. The network operator could differentiate or discriminate data packets along a faster priority path or actively throttle competitors’ traffic. DPI can be used as a ubiquitous computing surveillance technology that is used to monitor sender data, receiver data, data type, and content to monitor things like consumer behaviour (Fuchs, 2013, p. 1330 & 1333). ISPs can advance packets to the front of the queue and scan packets to surveil, increase, decrease, block, or filter traffic (Nuechterlein & Weiser, 2013, p. 205; Bendorath & Mueller, 2011, p. 1143). However, DPI could be used in filters and firewalls to detect and prevent spam, viruses, worms, and malware, to gain information to help plan network capacity and diagnostics, and to respond to law enforcement. DPI can filter malicious and redundant traffic (Bauer & Obar, 2014, p. 2). DPI was thus considered a double-edged sword from its network operational efficiency and anti-competitive potentials.

Another specific type of technological service that does not logically fit with the net neutrality principles was 5G. Chinese companies Huawei and ZTE outspent the U.S. on 5G buildup by \$24 billion and had built 350,000 new wireless towers since 2015, compared to the 30,000 towers the U.S. built. 5G uses higher frequency waves, allowing network towers to send and receive more data faster. According to Segal (2021, p. 158), Huawei spent \$15 billion on telecommunications research and development by 2018. In 2019, Huawei announced its Institute

of Strategic Research, where it would invest \$300 million each year for the next five to 10 years in technology. From 2019–2020, Huawei owned the most 5G patents in the world, was the second largest research and development investor in the world and spent more on research and development than Ericsson and Nokia combined, accounted for roughly 40 percent of global 5G infrastructure (along with ZTE), and had over 90 commercial contracts to build 5G equipment (p. 150).

Certain applications utilize certain slices (segments) of radio waves of a network. Each slice has specific performance features (e.g., a higher prioritization of data packets) which comes at varied price points. According to net neutrality opponents, if the Title II designation remained, we would have one network for which the FCC would set the price and speed, and one whose cost taxpayers would have to bear. A *network slice* is a logical (virtual) network customized to serve a defined business purpose or customer, consisting of an end-to-end composition of all network resources to satisfy performance and economic needs of that service class or customer application. *Network slicing* are multiple logical and virtual networks used for specific applications, services, users, or networks over a shared infrastructure layer, where some applications require different performance features, such as latency or prioritization of data packets. 5G's network slicing capabilities would allow operators to provide different services with different performance characteristics to address specific use cases. New technology reproduces a familiar point of contention; different animal (5G), same beast (paid prioritization). 5G has a much deeper context than ISPs trying to capture markets over competitors on a new high-tech service. The geopolitical context is one that involved the Republican Trump Administration's long obsession to win a trade war against China.

In 2018, the U.S. aimed to prevent Chinese telecommunications equipment suppliers from building and delivering 5G infrastructure in the U.S. and in allied countries out of fear that Washington would be denied access to global markets and military might (Zhang, 2021, p. 1446). Chinese telecommunications equipment was depicted as a means to conduct Chinese state espionage and harm U.S. “critical infrastructure” (Friis & Lysne, 2021, p. 1175), when really 5G was the “geopolitical battleground” for a trade war (Zhang, 2021, p. 1446). In 2020, Secretary of State, Mike Pompeo proposed a ‘5G Clean Path’ system to reroute correspondence from U.S. embassies off Chinese networks. This would develop into the ‘Clean Network’ initiative to protect computer security and computer-stored information from malicious actors and institutions (Friis & Lysne, 2021, p. 1178). Under Crofts and van Rijswijk’s (2021, p. 5) idea of the ambivalent myth of technology, technology is portrayed as being evil *and* being the solution to fight evil. The solutions to dystopian implications that can arise in technology are to encourage more productivity, a better assessment of morals and ethics in design, and greater optimization and efficiency in distribution. The question that remains is: how do net neutrality advocates think U.S. regulators should make DPI and 5G network management techniques compatible with Title II regulatory requirements?

4.3.5 – How does Internet governance reflect U.S. norms, values, and rights in ways that support the expansion of U.S. economic power?

Net neutrality advocates retraced the problem of choice as it related to paid prioritization and competition. The lack of choice between ISPs lead to users considering paying for higher tiered service plans. In 2017, 40 percent of U.S. households had one ISP available at download speeds of 25 Mbps or more and nine percent had no choice at all. Moreover, if users reached their allotted monthly data cap, their ISP would still allow them to access that ISP’s (or its

partners') services, and thus operate inside walled gardens. Using an ISP's or partnered services would not count towards a customer's monthly data cap, known as zero rating. Net neutrality advocates argued that discounting an ISP's own streaming service would be unfair to competitors since consumers would only access that ISP's streaming service instead of alternative streaming services because of data caps. The State of California went so far as to prohibit this practice of zero rating. Net neutrality opponents differed in their views by claiming that banning free-data plans hurts consumers who did not have to worry about paying more in monthly bills if they were to go beyond the data limits and many low-income customers enjoyed these plans. It could be argued that zero rating bans infringe on an ISP's right to sell the goods and services it deems profitable. By the same token, it could be argued that zero rating was one more technique of ISPs to build their walled garden of content, applications, and services, thereby fostering an enclosing of the commons and making it unfair for entry-level competitors to compete. The digital commons is integral for the access to, consumption of, and sharing of ideas over the Web. Interfacing with content, applications, and file sharing are important to most consumers.

Net neutrality advocates focus on the innovation commons to preserve open access to participate in content and application development and consumption (Wu, 2004, p. 79; Krämer & Wiewiorra, 2009, p. 2), as well as maintain a space for fair market competition and free will to access websites without restrictions from ISPs (Wu, 2004, p. 74). Jordan (2007, p. 429) argues that keeping the Web open as an information exchange of ideas maximizes social participation and welfare. Opening networks up to competitors would lead to fairness and choice. Technology dictates how information gets collected, transported, and consumed over the Web (Carr, 2016, p. 193). This determinist view attributes value and meaning to technology but is not confident in

society's ability to moderate the values and meanings (p. 34). DeNardis (2016, p. 10; see also Best & Wade, 2007) describes technical openness as the ability to contribute to a network, civil-liberties openness as fighting for the freedom of online expression and access, and openness of digital markets as equal entry access to fair competition. The aim for net neutrality advocates was to disbar paid prioritization, which would then hopefully lead to disbarring blocking and throttling.

Chapter 5 – Thematic Findings Part III: Politics

5.1 – Chapter Overview

In Chapter 3's economics theme, I analyzed the following four socio-legal narratives generated in NVivo: the defence of the Internet in the market economy, infrastructure investments, paid prioritization, and antitrust and consumer protection laws. I also analyzed the following three socio-legal narratives generated in NVivo in Chapter 4's technology theme: state jurisdiction and interconnectivity, data packets and walled gardens, and 5G and paid prioritization. The third major theme, politics, will comprise of an analysis of the following five socio-legal narratives generated in NVivo: the Verizon-Mendocino Complex Fire tragedy; political debating between Democratic and Republican Party members and social justice talking points; the 2017 Order hearing and CALinnovates' (a San Francisco, California coalition of technology leaders, start-ups, ISPs, entrepreneurs, and venture capitalists) influence on shaping the order; two negative reactions and two positive defences to repealing net neutrality; and the FCC's Electronic Comment Filing System (ECFS) fraudulent comments debacle. In Chapter 5, the politics theme explores how Verizon's data throttling practice during the Mendocino Complex Fire tragedy triggered criticisms about acting out of economic interest instead of public safety. The political debating between Democratic and Republican Party members shows some common ground on crafting Congressional legislation, but primarily exudes division on social justice issues, conflicts of interest, and regulatory tools to reinstate 2015 Order-style net neutrality protections. The 2017 Order hearing is another space that shows the divisiveness on net neutrality principles between the four (two Democratic and two Republican) FCC Commissioners and (one Republican) FCC Chairman, and how much of an impact CALinnovates has on shaping telecommunications policy and its questionable link to industry.

Next, across 2017–2020, two negative reactions and two positive defences to repealing net neutrality reveals how actors and ISPs were impacted. The politics theme ends by describing the FCC’s ECFS fraudulent comments debacle, starting with John Oliver’s call to comment on the site. I will detail allegations of fraudulent comments from users with Russian IP (Internet Protocol) and email addresses and from bots. Here, some commenters were fabricated and some actors had their identities stolen. Basic questioning of ECFS procedures, purposes, and impacts will be outlined, along with Freedom of Information Act (FOIA) requests that challenge the FCC’s withholding of records.

In Chapter 5, I will assess narratives of the Verizon-Mendocino Complex Fire tragedy, political debating between Democratic and Republican Party members and social justice talking points, the 2017 Order hearing and CALinnovates’ influence on shaping the order, two negative reactions and two positive defences to repealing net neutrality, and the FCC’s ECFS fraudulent comments debacle. Net neutrality advocates and opponents’ arguments are organized by issue in Appendix H’s *Chapter 5 Summary Table*. Net neutrality advocates and opponents’ arguments are juxtaposed side-by-side in the table. The phrase “*No direct response*” in the table is indicated for net neutrality advocates or opponents who did not have a direct response to an issue raised by the other side.

5.2 – Politics: Fire, Political Debates & Social Justice, the 2017 Order Hearing & CALinnovates, Reactions & Defences, & Fraudulent Comments

Section 5.2.1 details just how well negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) could be addressed in a post-2015 Order world with the case study of Verizon throttling Santa Clara Fire Department’s data speeds during the July 27, 2018 – January 4, 2019 Mendocino Complex Fire in northern California. Even though the fire

department paid Verizon for unlimited data, its bandwidth was heavily reduced, negatively impacting its fire vehicle as a command-and-control resource to deploy and organize personnel, fire engines, aircraft, and bulldozers. Verizon's response to the fire department was to upgrade its data plan and that, just like other state government contract plans, speeds were reduced when it exceeded its allotment until the next billing cycle. Verizon conceded that a communication error occurred on its part and that full-service should have been restored immediately during emergency situations. Net neutrality advocates argue that Verizon violated net neutrality principles by acting on its economic interest at the expense of public safety. Net neutrality opponents challenge California's proposed bill that would prevent ISPs from imposing restrictions on first responders during an emergency by arguing how claims of 'Internet traffic being degraded' was speculative. Also, the number of actors who could declare a state of emergency could get out of hand. Net neutrality opponents believe that Santa Clara County's lawyers and the fire department should have known that Verizon throttles data once users reach their allotted capacity and could have upgraded to a new plan (e.g., pay-as-you-go). The FTC's consumer protection laws are a viable option for challenging user restrictions, not FCC regulations.

Section 5.2.2 pits Democratic Party members against Republican Party members, where the former primarily argue as net neutrality advocates and the latter as net neutrality opponents, with a few exceptions. The political debates between the two parties, along with talking points that centre on social justice concerns, illustrates the division between U.S. government representatives. Democratic Party members highlight Miguel Santiago's, a State of California Democratic lawmaker, actions of removing whole portions of the State of California's net neutrality legislation. Democratic Party members raised concerns that Santiago allegedly had

financial ties with ISPs, calling into question his motives to repeal net neutrality legislation. Democratic Party members also point to Republican FCC Chairman Ajit Pai's ties to Sinclair Broadcast Group (an ultraconservative television station owner) regarding corporate merger discussions between Sinclair's Chairman and Pai the day before President Trump's inauguration. Moreover, Democratic Party members use the Congressional Review Act (CRA) to authorize a resolution of disapproval of agency (FCC) regulatory action in an attempt to reregulate; however, the act failed to get passed. Furthermore, Democratic senators bring up concerns regarding freedom of information, free speech rights, and low-income and racial inequality in relations to the repeal of net neutrality principles. Both Democratic and Republican Party members discuss how net neutrality rules were subject to newly elected administrations overturning the previous administration's policies. Both parties call for bipartisan legislation. Moreover, both parties discuss the digital divide in a negative light, as something to be eradicated. The digital divide refers to the lack of choice and limited access for low-income and racialized communities to digital tools, platforms, devices, services, and applications. On the other hand, Republican Party members point out their frustrations of Democratic Party members' *Chicken Little* scenarios about how consumer protections would be lost under the 2017 Order. Republican Party members believe that Democratic Party members are trying to defend Depression-era laws from the 1930s. Republican Party members also ravage the Democratic Party members' "Save the Internet Act of 2019" (Text - H.R.1644 - 116th Congress, 2019–2020) on the Senate floor. Most Republican Party members and net neutrality opponents in general are against the CRA as a temporary solution to reinstate 2015 Order net neutrality protections.

Section 5.2.3 outlines the two Democratic FCC Commissioners, the two Republican FCC Commissioners, and the one Republican FCC Chairman's positions on the repeal of the 2015

Order net neutrality principles during the 2017 Order hearing. One Democratic Commissioner cites the widening of the digital divide, the lack of affordability for smaller businesses, ISPs as *gatekeepers*, and the FTC's lack of authority to effectively regulate competitor and consumer harms. The other Democratic Commissioner cites the possibility that ISPs could evade FTC recourse by adding new provisions to their terms of service agreements. By contrast, one Republican Commissioner cites the previous FCC's regulatory capriciousness and harmful edicts against innovators, users, and businesses stemming from the 2015 Order that would declare *winners* and *losers* in the Internet market economy. The other Republican Commissioner cites how antitrust law will address alleged ISP discriminatory conduct and that Title II classification divested the FTC of its consumer protection authority. And the Republican Chairman cites how edge providers are to blame for blocking and prioritizing content and how the Internet should be driven by engineers, entrepreneurs, and consumers. The section also outlines the influence CALinnovates (a San Francisco, California coalition of technology leaders, start-ups, ISPs, entrepreneurs, and venture capitalists) had on some of the information referenced in the 2017 Order. Net neutrality advocates question the financial lobbying ties CALinnovates has with telecom industry leaders. CALinnovates, opponents of 2015-style net neutrality rules, argues that clear guidelines rooted in Congressional action should ensure Internet openness is kept and the stifling of innovation is prevented; that Title II gives the FCC the authority to set prices, control ISP services, and require utility-style tariffs; that ISPs should have fair competition, permissionless innovation, and low capital entry barriers; and that state-centric legislation is the wrong path to implement net neutrality protections. Section 5.2.3 ends on a bomb threat incident that occurred during the 2017 Order hearing.

Section 5.2.4 cites two negative reactions and two positive defences to repealing net neutrality and the impact on actors and ISPs. In two isolated incidents, net neutrality advocates threatened: to murder Republican FCC Chairman Ajit Pai's family and blame Chairman Pai for the suicide committed by two children because of the repeals; and to murder Congressman John Katko and his family if he did not support net neutrality. On the other side, net neutrality opponents produced two videos: (1) a PSA from Chairman Pai and *The Daily Caller* to explain what users can still do after net neutrality has been repealed; and (2) a conversation with Verizon Executive Vice President and Chief Administrative Legal and Public Policy Officer, Craig Silliman, who attempts to dispel negative perceptions about Verizon's position on net neutrality and its connection to Title I classification (i.e., classifying ISPs as *information service providers* and as providing *information services*) and Title II classification (i.e., classifying ISPs as *common carriers* and as providing *telecommunication services*).

In section 5.2.5, I will link four narratives together and the legal implications that follow, beginning with popular commentator John Oliver and ending with FOIA (Freedom of Information Act) lawsuits filed against the FCC. The first narrative will review two net neutrality television (and YouTube-posted) segments aired by Oliver on his HBO show *Last Week Tonight with John Oliver*, who called on viewers to submit comments to the FCC's ECFS (Electronic Comment Filing System) site. 18 million out of 22 million comments (there are now 23.9 million comments) submitted were allegedly fraudulent. The second narrative will explore the allegations about the fraudulently-submitted comments stemming from users with Russian IP and email addresses and from bots, and with some users who were fabricated and some who had their identities stolen. Journalists, data research companies, and law enforcement agencies led investigations into the ECFS comments debacle. The third narrative shows how experts ask the

FCC about its ECFS forum by questioning its procedures, purposes, and impacts in shaping the FCC's rule-making process. And the fourth narrative will exemplify two separate legal challenges against the FCC for failure to cooperate to reasonably submit FOIA requests from its (1) records on IP addresses and User-Agent headers from its ECFS site and (2) records on the alleged DDoS (distributed denial-of-service) attacks and astroturfing of comments. This last narrative in section 5.2.5 will provide a preview to Chapter 6's fourth socio-legal theme: law and regulation.

5.2.1 – Fire Fight

Section 5.2.1 details just how well negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) could be addressed in a post-2015 Order world with the case study of Verizon throttling Santa Clara Fire Department's data speeds during the July 27, 2018 – January 4, 2019 Mendocino Complex Fire in northern California. Even though the fire department paid Verizon for unlimited data, its bandwidth was heavily reduced, negatively impacting its fire vehicle as a command-and-control resource to deploy and organize personnel, fire engines, aircraft, and bulldozers. Verizon's response to the fire department was to upgrade its data plan and that, just like other state government contract plans, speeds were reduced when it exceeded its allotment until the next billing cycle. Verizon conceded that a communication error occurred on its part and that full-service should have been restored immediately during emergency situations. Net neutrality advocates argue that Verizon violated net neutrality principles by acting on its economic interest at the expense of public safety. Net neutrality opponents challenge California's proposed bill that would prevent ISPs from imposing restrictions on first responders during an emergency by arguing how claims of 'Internet traffic being degraded' was speculative. Also, the number of actors who could declare a state of

emergency could get out of hand. Net neutrality opponents believe that Santa Clara County’s lawyers and the fire department should have known that Verizon throttles data once users reach their allotted capacity and could have upgraded to a new plan (e.g., pay-as-you-go). The FTC’s consumer protection laws are a viable option for challenging user restrictions, not FCC regulations.

How well could ISP harms (i.e., blocking, throttling, and paid prioritization of data) be addressed in a post-2015 Order world, especially when a complaints option ceased to exist? On July 27, 2018, one of California’s largest wildfires in recorded history, known as the Mendocino Complex Fire, began to spread. The Mendocino Complex fire consisted of a river and a ranch fire. While the cause of the river fire was unknown, the cause of the wildfire was from a rancher trying to seal the opening of a wasp nest with a hammer and stake (Serna, 2019). In the end, one firefighter died, three firefighters had non-fatal injuries, 280 structures were destroyed, and 459,123 acres were burned (2019). 160-days later, on January 4, 2019, the fire in both areas had been extinguished (California Department of Forestry and Fire Protection, 2020). During the heroic attempt to contain the wildfire, Verizon throttled the data speed of Santa Clara Fire Department since it exceeded its allotted monthly limit (Clover, 2018). Anthony Bowden, the Santa Clara County Fire Chief, said that even though the fire department paid Verizon for unlimited data, its bandwidth was heavily reduced (2018) from its original 50Mbps download and 10Mbps upload to the speed of “useless” (Bode, 2019b). Verizon’s data throttling affected the fire department’s fire vehicle to “function effectively” (Clover, 2018). The vehicle had a “Verizon SIM card” and was “responsible for acting as a ‘command and control resource’ for ‘the rapid deployment and organization of thousands of personnel and hundreds of fire engines, aircraft, and bulldozers’” (2018).

When the fire department emailed Verizon to request that the data throttling be “‘immediately lifted for public safety purposes,’” Verizon replied that a new upgraded data plan had to be signed before service could be restored (Clover, 2018). The upgraded data plan was twice the cost at “\$99.99 per month for the first 20GB of data usage and \$8 of data per 1GB afterwards” (2018). Although ISPs did throttle data speeds during peak congestion times, the fire department claimed that Verizon continuously throttled its data speeds once its limit was exceeded. Under the 2015 Order rules, users could “file complaints [to the FCC] for unjust or unreasonable prices and practices,” but this option was eliminated (2018). Fire Chief Bowden believed that “Verizon will continue to use the exigent nature of public safety emergencies and catastrophic events to coerce public agencies into higher cost plans[,] ultimately paying significantly more for mission critical service – even if that means risking harm to public safety during negotiations” (2018). Verizon responded that this incident had nothing to do with net neutrality or the *Mozilla Corp. v. FCC* (2019) case. Verizon defended its actions by saying that “the customer purchased a [state] government contract plan for a high-speed wireless data allotment at a set monthly cost. Under this plan, users get an unlimited amount of data, but speeds are reduced when they exceed their allotment until the next billing cycle” (Clover, 2018).

One net neutrality advocate journalist argued that Verizon’s actions to throttle data speeds were technically not net neutrality violations, but the 2017 Order impeded “first responders’ ability to effectively contest the restrictions” (Bode, 2019b). Almost one-year after the incident, the State of California began the process to pass a bill that would prevent ISPs “from imposing such restrictions on first responders during an emergency” (2019b). The bill was met with opposition. Trade associations that represented the wireless communications industry, CTIA, NCTA – The Internet & Television Association, and USTelecom – The Broadband

Association, sent a letter to the California Assembly’s Communications and Conveyance Committee. CTIA argued that the bill, which wrote that “providers may not ‘impair or degrade’ [I]nternet traffic,” was speculative (2019b). In addition, concerns were raised about “the amount of people who could declare a state of emergency,” and that “providers should be notified of an emergency if they’re expected to adjust service” (2019b). The repeal of the 2015 Order rules “neutered the FCC’s authority” then “shovelled any remaining authority to the FTC,” an agency unequipped to police ISPs’ ambiguous network restrictions (2019b).

However, Verizon conceded that some of the blame should be attributed to a user service error on its part. Verizon said that “full-service should have been immediately restored to the county when fire department authorities told a customer service representative it was responding to a public emergency” (*Voice of America*, 2018). Verizon characterized its actions as a “communication error” (2018). Santa Clara County lawyer, James Williams, dismissed the excuse by arguing that data was throttled down to 1/200th of its normal speed, which showed that ISPs acted in their best “economic interests, even at the expense of public safety” (Jackson, 2018).

By contrast, net neutrality opponents TechFreedom (2018) (a non-profit and non-partisan technology think tank) submitted a brief of *Amicus Curiae* in support of the FCC (the respondents) in the *Mozilla Corp. v. FCC* (2019) case to outline how the County’s lawyers could have avoided service disruption. The case was made that “the County’s lawyers must have been aware of how the data plan worked” and that data throttling could have been avoided if the fire department invoked “the special policy regarding suspension of the speed restriction” or switched “to a data plan without a speed restriction” (TechFreedom, 2018, pp. 28–29). TechFreedom President Berin Szóka went on to write in a footnote that the fire department may

have been confused about how its data plan triggered speed restrictions after the first 25GB of data usage or may have forgotten that the speed restrictions had been waived only temporarily in December 2017. The fire department should have paid a pay-as-you-go plan with no speed restrictions. In any case, “whether Verizon accurately communicated how these two options worked is a typical question of consumer protection law as policed by the FTC” (p. 28).

Verizon’s narrow response to the fire fight was written in a letter, an addendum, attached by a Joint Brief submitted by USTelecom, CTIA, NCTA, ACA, and Wireless Internet Service Providers Association (WISPA) (2018) in support of the *Mozilla Corp. v. FCC* (2019) case respondents. This Joint Brief was a collective effort of trade associations that represented the wireless communications industry. Senior Vice President and Deputy General Counsel for Verizon, Kathleen Grillo, responded to Democratic Senators Dianne Feinstein and Kamala Harris’ letter to Hans Vestberg (CEO of Verizon), which questioned the mobile broadband service delivery during the Mendocino Complex Fire. According to Grillo, the fire department’s plan could be described as “a contract that references larger state and national governments” that “offers unlimited data” (USTelecom et al., 2018, p. 2). However, if usage exceeded “5 gigabytes per account line during any billing period,” Verizon reserved “the right to reduce throughput speed to a maximum of approximately 200 kilobits per second for up to thirty days” (p. 2). Its contract also expressed that data speed restrictions would be removed in emergency situations, a practice that was clearly not followed. Grillo also mentioned that Verizon took responsibility for this oversight by acknowledging the mistake, “apologized[,] and put fixes in place within a few days, and within the same timeframe sent executives to the California legislature to testify at a public hearing” (p. 2). To rectify the mistake, Verizon “rolled out a new plan for first responders

(Law Enforcement, Fire Services, Emergency Medical Services) that have no speed restrictions at all – at no additional charge” (p. 2).

Along with the creation of an impactful state-crafted broadband access bill, the State of California provided the grounds for net neutrality advocates to demonstrate how regulators (i.e., the FTC) could not sufficiently address negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) in a post-2015 Order world. Blocking, throttling, and paid prioritization concerns were heightened at the heart of the net neutrality debates. While political debates weaved throughout the 2017–2020 period, Verizon’s (in)actions ignited a firefight between net neutrality advocates and opponents. The Mendocino Complex Fire incident was one of many political debates between Democratic and Republican Party members. Many Democratic Party members still cited the Mendocino Complex Fire incident as fuel for debates against net neutrality opponents in the face of Verizon’s apology, accountability measures, and steps to prevent similar occurrences. But as it will be shown in section 5.2.2, not all Democratic Party members were self-identified advocates of net neutrality, nor were all Republican Party members opponents of net neutrality. Nevertheless, the highly partisan nature of the net neutrality debates still shines through with the majority of Democrats holding the opinion of net neutrality advocates and the majority of Republicans holding the opinions of net neutrality opponents. Inflamed rhetoric on both sides of any debate is a normal part of politics, but the net neutrality debate was certainly heightened during the reign of Republican President Donald Trump’s administrative occupancy. The political climate could be characterized as a partisan divide where the Trump administration sought to reverse many Democratic President Barack Obama-era rules. The politically partisan backgrounds of net neutrality advocate and opponent

actors and institutions/organizations have been and will continue to be identified throughout these debates.

5.2.2 – Political Debates & Social Justice Concerns

Section 5.2.2 pits Democratic Party members against Republican Party members, where the former primarily argue as net neutrality advocates and the latter as net neutrality opponents, with a few exceptions. The political debates between the two parties, along with talking points that centre on social justice concerns, illustrates the division between U.S. government representatives. Democratic Party members highlight Miguel Santiago's, a State of California Democratic lawmaker, actions of removing whole portions of the State of California's net neutrality legislation. Democratic Party members raised concerns that Santiago allegedly had financial ties with ISPs, calling into question his motives to repeal net neutrality legislation. Democratic Party members also point to Republican FCC Chairman Ajit Pai's ties to Sinclair Broadcast Group (an ultraconservative television station owner) regarding corporate merger discussions between Sinclair's Chairman and Pai the day before President Trump's inauguration. Moreover, Democratic Party members use the Congressional Review Act (CRA) to authorize a resolution of disapproval of agency (FCC) regulatory action in an attempt to reregulate; however, the act failed to get passed. Furthermore, Democratic senators bring up concerns regarding freedom of information, free speech rights, and low-income and racial inequality in relations to the repeal of net neutrality principles. Both Democratic and Republican Party members discuss how net neutrality rules were subject to newly elected administrations overturning the previous administration's policies. Both parties call for bipartisan legislation. Moreover, both parties discuss the digital divide in a negative light, as something to be eradicated. The digital divide refers to the lack of choice and limited access for low-income and racialized communities to

digital tools, platforms, devices, services, and applications. On the other hand, Republican Party members point out their frustrations of Democratic Party members' *Chicken Little* scenarios about how consumer protections would be lost under the 2017 Order. Republican Party members believe that Democratic Party members are trying to defend Depression-era laws from the 1930s. Republican Party members also ravage the Democratic Party members' "Save the Internet Act of 2019" (Text - H.R.1644 - 116th Congress, 2019–2020) on the Senate floor. Most Republican Party members and net neutrality opponents in general are against the CRA as a temporary solution to reinstate 2015 Order net neutrality protections.

Nearly one-month before the Mendocino Complex Fire spread in Northern California, Miguel Santiago, a Democratic State of California lawmaker, condemned online attacks against his family after he took a negative position on net neutrality protections. Santiago chaired an assembly committee that "removed whole portions of a bill considered one of the nation's most aggressive efforts to revive net neutrality rules" (Cooper, 2018). The effort to revive net neutrality rules was embodied in the State of California's net neutrality legislation. The amendments made to the bill led Democratic Senator Scott Wiener (the bill's original sponsor) to withdraw support (2018). California Democratic Party Chairman Eric Bauman attempted to urge "Santiago and Weiner to work together to find the right solution;" however, this did not stop critics from posting deplorable online attacks against Santiago and his family. Santiago said that "my personal family pictures have been stolen from my social media platforms and used to create memes," including a picture with captioned texts of him telling his wife and children how to be "'a sellout whore' ... 'just like daddy'" (2018). The *sellout* reference alluded to how Santiago removed whole portions of the statewide broadband access bill to appease AT&T and other ISPs with whom he had financial ties with.

Democratic Senator Elizabeth Warren raised concerns about another conflict-of-interest matter, this time concerning Ajit Pai's influential ties to Sinclair Broadcast Group (163 Cong. Rec. S. 6237, 2017). Senator Warren's concerns were raised during the Congressional vote to nominate Pai to a second five-year term as the FCC's Commissioner on October 2, 2017 (the result was 52 *yeas* and 41 *nays*). Senator Warren's *nay* vote was cast under the pretense of political figures failing to protect public interest through biased media production. Senator Warren argued that Sinclair "is the largest television station owner in America" and promoted "ultraconservative views" by melding its "radical ideology with a take-no-prisoners profit-making mission" by promoting sponsors' products (2017). If Sinclair's bid to purchase Tribune broadcasting was successful, Senator Warren said that "Sinclair would have access to over 70 percent of American households" (2017). Sinclair "spread slanted, pro-Trump news stories" during the 2016 Presidential campaign. Even "the day before Trump's inauguration, Sinclair's Chairman met with Pai," just before he was promoted to Chairman from Commissioner, to discuss a rewriting of corporate merger rules to make it easier for Sinclair to acquire Tribune (2017). The implication here for Senator Warren was "with more local programming coming from a centralized source, there would be less information and less diversity of ideas in local reporting," which is bad for competition and democracy (2017). While not an ISP, parallels can be drawn between ISPs and Sinclair to how walled gardens were (and are still being) built to enclose the creative commons.

Net neutrality advocates' fears of corporate and political collusion and controlling the narrative through content versus net neutrality opponents' reassurances of business as usual appeared multiple times in the data. Net neutrality opponents brought up their frustrations about the embellished *Chicken Little* scenarios painted by net neutrality advocates about how consumer

protections would be lost under the 2017 Order. NCTA, the principal trade association and lobbyist group for broadband, said that “despite a new round of outlandish claims and doomsday predictions from groups dedicated to stoking political controversy, consumers will be able to see for themselves that their [I]nternet service will keep working as [it] always has and will keep getting better” (Frankel, 2018). While the Sinclair and *Chicken Little* examples were instances of how net neutrality advocates’ pessimistic fears and net neutrality opponents’ optimistic reassurances were at odds, one recurring concern adopted by both sides was how net neutrality rules were subject to newly elected administrations overturning the previous administration’s policies. For instance, NCTA’s President and former Republican FCC Chairman, Michael Powell, said that without federal legislation, net neutrality rules would continue to be adopted and repealed “depending on what party [was] ... in charge” (*Communications Daily*, 2018c). Powell noted that the Democratic-partisan 2015 Order left net neutrality “permanently stuck” without any finality in that it could be (and was) repealed in future administrations (2018c). Republican Party members net neutrality opponents urged the need to adopt bipartisan legislation.

Republican Senators Roger Wicker and John Thune were two net neutrality opponents who called for bipartisan legislation. Two years after the 2017 Order was enacted, Senator Wicker tried to gather all members to participate in the Senate Net Neutrality Bipartisan Working Group (165 Cong. Rec. S. 6910, 2019). Senator Wicker wished to enact “a permanent statute” to avoid going back and forth between administration-controlled FCCs and to “statutorily place non[-]discrimination online in the law ... outside of the regulation of something that we have imposed on another part of our economy half a century ago” (2019). Senator Wicker’s sentiments were also held by Senator Thune in a Congressional debate on May

18, 2017, where he implored to put “apocalyptic rhetoric and fearmongering aside” (163 Cong. Rec. S. 3025, 2017). Senator Thune asked Congress to consider the policy pathway that could have been taken before the 2015 Order was enacted:

In November of 2014, I offered former [Democratic] FCC Chairman Tom Wheeler an opportunity ... to come together to craft a permanent legislative solution banning ... blocking, throttling, and paid prioritization of [I]nternet traffic. ... Our idea for legislation was straightforward: [c]ombine protections ensuring that owners of broadband infrastructure can’t use their role to manipulate the user experience with those guaranteeing a continuation of the light-touch regulatory policies that helped the [I]nternet thrive for two decades. But Chairman Wheeler ... lobbied to block such discussions from even happening in Congress. He then, with only partisan support, issued an order that gave the FCC authority to regulate the [I]nternet under old laws designed for phone monopolies and eliminated all the authority the Federal Trade Commission had to police broadband providers (2017).

In both examples, Senators Wicker and Thune critiqued the Depression-era laws adopted by the Democratic FCC Commissioner and asked Democratic Party members to join working groups to design legislation to ban blocking, throttling, and paid prioritization. The precise details of how this compromise approach would work remained unsaid. The purpose of these two examples was to show that when calling to join forces to produce bipartisan legislation, Republican Party members undermined Democratic Party members’ proposals to adopt laws from 1934.

Republican Congressmen Greg Walden and Doug LaMalfa also slighted Democratic Party members for introducing and voting on the “Save the Internet Act of 2019” (Text - H.R.1644 - 116th Congress, 2019–2020). The act would largely restore net neutrality principles

with no blocking, throttling, or paid prioritization allowed by ISPs. Congressman LaMalfa deemed the Save the Internet Act as “total hypocrisy” and “nothing short of a [f]ederal [g]overnment takeover of the [I]nternet[.] ... Democrats want a panel of unelected bureaucrats to have nearly limitless control over the [I]nternet, including decisions over content moderation and imposing new taxes and fees for [I]nternet services by the FCC” (165 Cong. Rec. H. 3139, 2019). Similarly, Congressman Walden said that “Democrats have caved into the idea that only putting unelected bureaucrats in charge of every facet of the Internet is the answer. And they know what all Americans know: [t]he Save the Internet Act] ... is opposed by the President, and the leader of the Senate [Mitch McConnell] says it is dead on arrival there, so it will not become law” (165 Cong. Rec. H. 3169, 2019). Democratic Party members pushed through their act in a 232 to 190 vote, where only one Republican Party member voted for the bill even though many said they wanted permanent legislation (Reardon, 2019). Senate Majority Leader McConnell did indeed say that the bill was “dead on arrival” in the Senate since “it would need the signature of President Donald Trump” who would have vetoed (and did veto) the bill (2019). The bill would have restored the FCC’s regulatory authority to govern broadband networks.

One-year prior to the introduction of the “Save the Internet Act of 2019,” Democratic Party members invoked the CRA (5 U.S.C. §801) -- “a fast-track legislative vehicle that allows Congress to authorize a resolution of disapproval of agency regulatory actions” (*US Official News*, 2018). The act promised to overturn the 2017 Order rules and was spearheaded by Democratic Senator Ed Markey and Democratic Congressman Mike Doyle who rallied the support of 50 Democratic Senators and three Republican Senators (2018). Ultimately, the motion passed the Senate but failed at the House of Representatives level due to an insufficient amount of signatures required to force a vote. Many Republican and some Democratic Party members

were opposed to the use of the CRA as a tool to levy the repeal of FCC-guided rules. For instance, one self-identified progressive Democratic journalist said that “instead of a forward-looking net neutrality law, the far left is pushing an arcane ... [act] disapproval resolution that will leave the issue in the hands of the FCC rather than a substantive law that will genuinely fix the problem” (*Charleston Gazette-Mail*, 2018). From this perspective, the act would send regulatory issues “back to the Trump Administration today and give any FCC of tomorrow free reign to erase our [I]nternet protections, all while doing nothing to reign in the abuses of Big Tech” and leave future monopoly abuses unregulated (2018).

Republican Senator John Thune discussed evading the CRA as a means to preserve net neutrality rules from 2015. Senator Thune expressed his anger about how the act would produce “ambiguity” in clear sets of rules for ISPs, regulators, and users and opined for “long-term certainty” instead (164 Cong. Rec. S. 2560, 2018). Senator Thune told Democratic Party members to quit “playing political games to score political points” and focus “on actually legislating” (2018). From Senator Thune’s perspective, the FCC was “unwinding the heavy-handed regulation” from the 2015 Order and was attempting to “reregulate, not to deregulate or prevent regulations from going into effect” under the act (2018). In another Congressional debate one-week later, Senator Thune continued to emphasize that FCC regulations should not bounce from “administration to administration at the whim of whatever the political wins of the day are” (164 Cong. Rec. S. 2698, 2018). Senator Thune also conveyed that the time wasted on trying to pass the CRA to repeal FCC-enacted regulation would prompt “uncertainty where one FCC to the next continues to change the rules and where companies spend millions of dollars in litigation in courtrooms on lawsuits rather than ploughing it into infrastructure, investment, and new and innovative technologies” (2018).

Net neutrality opponents and advocates further engaged with each other on the digital divide as a political talking point, with freedom of speech, low-income inequality, and racial inequality. Journalist Brent Wilkes (2018) called the CRA an “obscure legislative tool” and a “legislative Hail Mary” that would not “protect a free and open Internet,” and would “continue to leave many rural and minority residents in California on the wrong side of the digital divide.” For elected and appointed political stakeholders, the digital divide was always referred to in a negative light and as a phenomena that needed to be eradicated. According to Republican FCC Chairman Ajit Pai in a conversation at The Paley Center for Media (2019), closing the digital divide in poor rural areas and towns was more important than arguing about Titles I and II classifications. In the 2017 Order (Restoring Internet Freedom, 2017, p. 3), the FCC majority argued that “broadband deployment in rural America and infrastructure investment throughout the nation[] brighten the future of innovation both within networks and at ... [its] edge, and move closer to the goal of eliminating the digital divide.” Democratic FCC Commissioner Jessica Rosenworcel discussed what the digital divide meant to her on The Joe Rogan Experience Podcast (JRE Clips, 2018). For Commissioner Rosenworcel, the digital divide meant a lack of choice and limited-to-no access to digital tools, platforms, devices, services, and applications. Half of U.S. households did not have the opportunity to choose more than one provider. It is also difficult to encourage a free market competition-based assembly when there is such large income inequality to begin with. The digital divide was a closing of the commons since private online platforms were spaces for conversations to take place. Culturally-controlling content through walled gardens kept those who cannot afford to pay Internet access fees from participating on different platforms (2018).

As part of the digital divide, Democratic Senator Jeff Merkley said that the repealing of net neutrality was “an assault on freedom of information” (163 Cong. Rec. S. 7981, 2017). Senator Merkley cited James Madison, who said, ““the advancement and diffusion of knowledge is the only guardian of true liberty”” (2017). In reply comments submitted by the American Civil Liberties Union (2017), it was argued that ISPs also had speech rights. However, as gatekeepers, ISPs “serve as mere conduits for the speech of individual users. Because the present regulatory framework only requires ISPs to conduct ... [itself] as common carriers, there is no violation of the ISPs’ speech rights” (p. 20). Furthermore, speech rights can also impact racial justice issues. According to Carmen Scurato, Senior Policy Counsel at Free Press Action (an advocacy group that shapes media reform policy), “people of color rely on [n]et [n]eutrality protections to tell our stories, advocate for our communities[,] and speak out against injustice” (*Targeted News Service*, 2019). The blocking, throttling, and exclusive access to open information degraded “the kinds of speech that are essential to the fight for our digital civil rights,” and more unaffordable “broadband options for people of color and those most often disconnected from the [I]nternet” stem from the 2015 Order repeal (2019).

More left-leaning on the political spectrum voices shined through to discuss connections between net neutrality repeals and low-income and racial inequality. In a joint brief in support of the Petitioners in the *Mozilla Corp. v. FCC* (2019) case, Common Cause et al. (2018, p. 9) (grass roots organizations that lead a democracy reform movement to promote equal rights and opportunities) argued that the 2017 Order failed to consider “the public benefit that a free and open Internet provides to communities of color, specifically their ability to make their voice heard.” The 2017 Order did not consider how bright-line rules “are necessary to ensure that media firms continue to invest in a diverse array of content or that independent and diverse

content producers will be harmed by eliminating those rules” (pp. 9–10). Moreover, Democratic FCC Commissioner Mignon Clyburn (2018 FCC LEXIS 840) remarked at a conversation at The New School’s Digital Equity Laboratory that “according to Pew Research Centre, only 54% of African Americans and 50% of Latinos[] subscribe to a home broadband service, compared to 72% of White Americans.” Commissioner Clyburn discussed virtual redlining to reveal how data from the National Digital Inclusion Alliance (a non-profit that helps shape policy to end the digital divide) cited evidence about ISPs intentionally focussing “investments on deploying broadband technologies[] in high-income urban, suburban[,] and middle-income neighborhoods” and how high poverty rates correlated with decisions not to invest in broadband infrastructure (2018). During Commissioner Clyburn’s dissent during the 2017 Order vote, she communicated how communities of colour rely on online platforms since many “traditional outlets do not consider their issues or concerns[] worthy of coverage. It was through social media that the world first heard about the police shooting in Ferguson, Missouri, because legacy news outlets did not consider it important until the hashtag started trending (Restoring Internet Freedom, 2017, p. 224).

Net neutrality advocates were more adamant to discuss the digital divide, freedom of speech, low-income inequality, and racial inequality than net neutrality opponents. Democratic Party members and civil society groups highlighted the connections between equal opportunities to access information and express thoughts and ideas. Section 5.2.3 continues with Commissioner Clyburn who discusses these political talking points further, along with the other three FCC Commissioners and the Chairman, under the context of the 2017 Order hearing. The hearing represents another major site for political debates between net neutrality advocates and opponents.

5.2.3 – The 2017 Order Hearing & CALinnovates

Section 5.2.3 outlines the two Democratic FCC Commissioners, the two Republican FCC Commissioners, and the one Republican FCC Chairman's positions on the repeal of the 2015 Order net neutrality principles during the 2017 Order hearing. One Democratic Commissioner cites the widening of the digital divide, the lack of affordability for smaller businesses, ISPs as *gatekeepers*, and the FTC's lack of authority to effectively regulate competitor and consumer harms. The other Democratic Commissioner cites the possibility that ISPs could evade FTC recourse by adding new provisions to their terms of service agreements. By contrast, one Republican Commissioner cites the previous FCC's regulatory capriciousness and harmful edicts against innovators, users, and businesses stemming from the 2015 Order that would declare *winners* and *losers* in the Internet market economy. The other Republican Commissioner cites how antitrust law will address alleged ISP discriminatory conduct and that Title II classification divested the FTC of its consumer protection authority. And the Republican Chairman cites how edge providers are to blame for blocking and prioritizing content and how the Internet should be driven by engineers, entrepreneurs, and consumers. The section also outlines the influence CALinnovates (a San Francisco, California coalition of technology leaders, start-ups, ISPs, entrepreneurs, and venture capitalists) had on some of the information referenced in the 2017 Order. Net neutrality advocates question the financial lobbying ties CALinnovates has with telecom industry leaders. CALinnovates, opponents of 2015-style net neutrality rules, argues that clear guidelines rooted in Congressional action should ensure Internet openness is kept and the stifling of innovation is prevented; that Title II gives the FCC the authority to set prices, control ISP services, and require utility-style tariffs; that ISPs should have fair competition, permissionless innovation, and low capital entry barriers; and that state-centric legislation is the

wrong path to implement net neutrality protections. Section 5.2.3 ends on a bomb threat incident that occurred during the 2017 Order hearing.

To give a snapshot of the overwhelming public disapproval of the repealing of net neutrality rules, the live streamed YouTube video on December 14, 2017 of the 2017 Order hearing (Washington Post, 2017) received approximately 134,400 *user-dislikes* and 5,800 *user-likes*. Out of the approximately 140,200 users who reviewed the video, 95 percent of users disliked the video. The video received approximately 1.33 million views overall. Section 5.2.3 first reviews the 2017 Order hearing and the FCC Commissioners and Chairman's dissenting and concurring opinions on the matter of repealing the net neutrality protections found in the 2015 Order. I will begin with the dissenting opinions of net neutrality advocates and Democratic FCC Commissioners Mignon Clyburn and Jessica Rosenworcel. I will then transition to net neutrality opponents and Republican FCC Commissioners Michael O'Reilly and Brendan Carr and Republican FCC Chairman Ajit Pai.

Democratic FCC Commissioner Mignon Clyburn attacked the 2017 Order as being a "finely-spun, legally-lightweight, consumer-harming, corporate enabling," and destroyer of Internet freedoms (Washington Post, 2017). Commissioner Clyburn believed the FCC failed to make available to most U.S. citizens, without discrimination, BIAS (broadband Internet access service) at reasonable monthly charges. Much of her anger lay in the fact that despite the millions of comments, letters, and calls received, the FCC majority's Order never cited one. Sole proprietors who expressed concerns about being unable to afford access to ISP-set tolls, and who depend on open Internet access as part of their business models, never had their stories heard. Since ISPs had the ability to set arbitrary tolls for premium access to content, applications, platforms, services, and/or devices, Commissioner Clyburn feared that ISPs were building

regimes to become arbiters “of acceptable online business models” and that the FCC’s regulatory substance would fade away (2017). Furthermore, she pointed out that what was absent from the 2017 Order in a “haphazardly-issued afterthought” of a MOU (Memorandum of Understanding) was that the FTC had zero technical experience with the BIAS industry (2017). The FTC required proof of unfair or deceptive practices and substantial user injury, and if such charges were laid, it could take years to receive legal justice. Commissioner Clyburn’s dissent aligned with many other net neutrality advocates’ ECFS (Electronic Comment Filing System) reply comments found in the economics and technology socio-legal narratives regarding the widening of the digital divide, the lack of affordability by smaller businesses to engage financially with large ISPs, ISPs as gatekeepers, and the FTC’s lack of authority to effectively regulate competitor and user harms. Democratic FCC Commissioner Jessica Rosenworcel also discussed the negative impact repealing net neutrality would have on business and users.

Democratic FCC Commissioner Jessica Rosenworcel began her dissent by outlining how the 2017 Order was on the wrong side of communications law and history and the U.S. public (Washington Post, 2017). Commissioner Rosenworcel argued that ISPs could simply evade FTC recourse by adding “new provisions to the fine print” in their terms of service agreements, which would clearly define their intentions to block, throttle, and prioritize data packets (2017). Commissioner Rosenworcel ended her brief dissent on a note of optimism to say that this history of net neutrality will be bent “towards a more just outcome in the courts, in Congress, wherever we need to go to ensure that net neutrality stays the law of the land because if you are conservative or progressive, you benefit from Internet openness” (2017). Both Commissioners O’Reilly and Carr could not have disagreed more as they attacked the 2015 Order’s foundations and Title II classification of ISPs.

For net neutrality opponent Republican FCC Commissioner Michael O'Reilly, the 2015 Order was at "the height of regulatory capriciousness" and should never have been revived by the Obama Administration (Washington Post, 2017). Under the 2015 Order rules, "businesses could be subject to investigation without any prior notice that the conduct could be considered a violation," which left many businesses confused and worried about the FCC's overreach (2017). And as a response to Democratic FCC Commissioner Mignon Clyburn's accusation that many of the ECFS reply comments were not cited, Commissioner O'Reilly said that the FCC did not rely on comments sent by bots or actors who use expletives since it added no substantive value to the inquiry (2017). Less than one month before the hearing, he also gave remarks on the R Street Institute and the Lincoln Network panel regarding harms the 2015 Order brought forth (2017 FCC LEXIS 374). Commissioner O'Reilly criticized the prior Commission majority for mistakenly thinking it was their "duty to enact unnecessary and harmful edicts with the purpose of imposing their will over that of innovators, users, and Internet businesses" (2017). Former Democratic President Obama's elitist rule over the Internet attempted to create a "near omnipotent, unaccountable enforcement regime to troll Internet practices[,] declaring winners and losers like a drunk 1920s NYC cop on the beat" (2017). Republican FCC Commissioner Brendan Carr carried these sentiments forward during his concurring opinion in the 2017 Order hearing.

Republican FCC Commissioner Brendan Carr cited the former Democratic Obama administration FTC Chairman who said that federal antitrust law will be a "formidable hammer" against discriminatory conduct by ISPs and that it would directly address negative effects of ISP harms around blocking, throttling, and paid prioritization of data (Washington Post, 2017). According to Commissioner Carr, the debate between Title I and II classifications

was “not the thin line between where we are right now in some Mad Max version of the Internet” and not a “Thunderdome;” users can still enjoy a free and openly accessible Internet “long after our Title II experiment ends today” (2017). Title II classification divested the FTC “100% of its consumer protection authority over ISPs, including its ability to police ISPs that engage in unfair or deceptive practices,” whereas Title I classification would provide “powerful legal checks” (2017). Moreover, he argued that “state consumer protection laws will apply, and state attorneys general can bring actions against ISPs” as legal solutions (2017).

Near the end of the hearing, Republican FCC Chairman Ajit Pai communicated that outrage should be directed towards edge providers, like Google, who annotate search results based on paid prioritization; edge providers were the real threats to an open Internet. Chairman Pai sharply said that the FCC “is not in the business of picking winners and losers in the Internet [market] economy” (Washington Post, 2017). This statement aligned with Republican FCC Commissioner Michael O’Reilly’s criticism about the former FCC majority creating an enforcement regime that declared winners and losers “like a drunk 1920s NYC cop on the beat” (2017). Keeping in line with the *cop* analogy, in a news conference after the hearing, Chairman Pai said that the FTC is ““the nation’s premier consumer protection cop on the beat”” (*Warren’s Washington Internet Daily*, 2017).

Prior to the news conference, just before the vote to adopt the 2017 Order was called, Republican FCC Chairman Ajit Pai made the following statement that turned into one of the most quoted statements by mainstream media in the net neutrality debates: “[i]t is time for the Internet once again to be driven by engineers and entrepreneurs and consumers rather than lawyers and accountants and bureaucrats” (Washington Post, 2017). On numerous occasions in different mediums, CALinnovates also recommended that the principles found in the 2017 Order

should be driven by engineers, entrepreneurs, and consumers. CALinnovates is a San Francisco, California coalition of “technology leaders, recent startups, traditional telecommunication companies, entrepreneurs, and venture capitalists” and was cited five separate times in the 2017 Order (*TR State NewsWire*, 2017). However, questions were raised by net neutrality advocates about the financial lobbying ties that CALinnovates had with AT&T and other ISPs and its influence on the 2017 Order.

Five months before the 2017 Order hearing, CALinnovates declared that Congress should ““establish clear guidelines ensuring that the Internet remains open, that certain pernicious per se anticompetitive practices are forbidden, and that the stifling of innovation – whether by [state] government or by private actors – is prevented”” (*TR State NewsWire*, 2017). The FCC should not be engaging in ““broad sweeping pronouncements, and reversals, all flowing from electoral outcomes”” (2017). Moreover, CALinnovates’ stance on Title II classification was that the FCC had the power to redefine and regulate permissible ISP conduct and protect and promote Internet openness. However, Title II gave the FCC the authority to ““set prices and conditions of service, to prevent broadband carriers from discontinuing service, and to require utility-style tariffs”” (2017). CALinnovates conceded that the FCC has exercised forbearance from the Telecommunications Act, but this forbearance ““compounds uncertainty, which in turn discourages innovators and investors”” (2017).

CALinnovates showed further concern around the negative impact FCC regulations could have on users from ISPs retracting investments and innovations and called for Washington to ““rise above partisanship to create a policy model that protects Americans”” (*Communications Daily*, 2017b). A survey was conducted by CALinnovates that found that out of 2,568 U.S. citizens that completed its online survey, 74 percent of respondents would support net neutrality

legislation that banned blocking, throttling, and paid prioritization “as long as the rules apply equally to ISPs and edge providers” (2017b). 46 percent reportedly did not want “the federal government to have an active role in regulating” the Web (2017b). Mike Montgomery, Executive Director of CALinnovates, asserted that, “[v]oters want Congress to ... legislate a sustainable solution to the net neutrality debate that creates clear, consistent, and platform-agnostic rules governing the treatment of their data” (*Entertainment Close-Up*, 2017). Montgomery also argued that millennial voters supported permanent law rather than “short-lived or easily overturned regulations,” where one poll found that “18-29[-]year-olds were nearly twice as likely to favor Congressional action versus continued FCC oversight” (2017). In addition, Montgomery said that “[e]ntrepreneurs and consumers deserve better than the petty ping-pong of regulatory uncertainty that’s plagued the preservation of the open Internet by the FCC” (*Plus Company Updates (PCU)*, 2017). It was important for CALinnovates to have Congress draft consensus legislation of net neutrality principles to ensure “fair competition,” “permissionless innovation,” and “low capital entry barriers” (2017), and not “press conferences and partisanship” (*Communications Daily*, 2017d). Montgomery criticized state-specific legislation as “the wrong approach” (*Warren’s Washington Internet Daily*, 2018b) and as a patchwork of laws differing by state (CALinnovates, 2017). Montgomery prophesized that California’s 2018 legislation was a “piecemeal approach” that would “enrich California’s lobbyists and lawyers for years to come while leading to uncertainty, higher prices[,], and far fewer jobs created” (*Communications Daily*, 2018a).

Montgomery was on public record saying that net neutrality principles should be passed only if they could be codified into law. Yet, there was a disconnect between his call to pass net neutrality principles into law through Congressional legislation and his condemnation of Title II

unnecessarily extending the FCC's regulatory reach. Montgomery's two arguments were incompatible since to advocate for net neutrality principles was to advocate for classifying ISPs as providing *telecommunication* services. One could assume that Montgomery was arguing for the construction of Congressional legislation to disallow future federal regulatory bodies (i.e., the FCC or FTC) from reversing the previously-elected administration's actions. Despite this disconnect, CALinnovates and Republican FCC Chairman Ajit Pai's statements certainly aligned on supporting Internet principles to be driven by engineers, entrepreneurs, and consumers.

Republican FCC Chairman Ajit Pai's 2017 Order hearing statement was interrupted by a U.S. Department of Homeland Security agent who ordered everyone to immediately leave the premises. Chairman Pai was handed a note and told everyone, "[o]n the advice of security, we need to take a brief recess" (Washington Post, 2017). The security agent urgently told everyone to leave all smartphones, tablets, laptops, papers, cameras, and bags in the Commission Meeting Room except for their bodies. As additional security agents sprawled across the room, two brought in explosive detection canines to sweep for bombs. From when everyone was told to evacuate to when everyone reoccupied the room and the meeting reconvened, the entire incident spanned approximately 15 minutes. *Warren's Washington Internet Daily* (2017) journalists were referred to the Federal Protective Service by the FCC to address questions about why vacating the hearing room was necessary. The FCC reportedly received a telephone call that "'two explosive devices were in the building and set to detonate in 30 minutes,'" with one supposedly in the room (2017). Federal Protective Service Director of Communications and Engagement, Robert Sperling, emailed *Warren's Washington Internet Daily* journalists to say that "'[t]he decision was made to have everyone leave the hearing room out of an utmost of caution. FPS Explosive Detection Canine Teams swept the facility and gave the 'all clear,' and the hearing

room and overflow room were able to be repopulated” (2017). This was one of many negative reactions to the repealing of net neutrality that happened between the period of 2017–2020.

Section 5.2.4 will explore two more negative reactions with two death threats, one against Chairman Pai and his family and one against Congressman John Katko and his family. Section 5.2.4 will also explore two positive defences to the repealing of net neutrality with a *public service announcement* video uploaded by *The Daily Caller* that features Chairman Pai showing things one can still do online even after net neutrality has been repealed, and with a video uploaded by Verizon that serves misinformation about the FCC’s repeal, Verizon’s support for net neutrality, and what net neutrality principles and rules purportedly do.

5.2.4 – Two Negative Reactions & Two Positive Defences to Repealing Net Neutrality

Section 5.2.4 cites two negative reactions and two positive defences to repealing net neutrality and the impact on actors and ISPs. In two isolated incidents, net neutrality advocates threatened: to murder Republican FCC Chairman Ajit Pai’s family and blame Chairman Pai for the suicide committed by two children because of the repeals; and to murder Congressman John Katko and his family if he did not support net neutrality. On the other side, net neutrality opponents produced two videos: (1) a PSA from Chairman Pai and *The Daily Caller* to explain what users can still do after net neutrality has been repealed; and (2) a conversation with Verizon Executive Vice President and Chief Administrative Legal and Public Policy Officer, Craig Silliman, who attempts to dispel negative perceptions about Verizon’s position on net neutrality and its connection to Title I classification (i.e., classifying ISPs as *information service providers* and as providing *information services*) and Title II classification (i.e., classifying ISPs as *common carriers* and as providing *telecommunication services*).

The bomb threat scare during the 2017 Order hearing was one negative reaction to the repealing of net neutrality. Two more negative reactions will show the impact repealing net neutrality had on actors. To begin, Republican FCC Chairman Ajit Pai and his family's lives were threatened by Markara Man, a 33-year-old from Norwalk, California, days after the 2015 Open Internet Order was repealed. According to court documents, Man sent three emails to Chairman Pai accusing him of being responsible for two children committing suicide on account of the net neutrality repeal, posting three preschools around Arlington (where Pai lived) to show that he was close to knowing where Pai's children attended preschool, and posted an image depicting Pai and a framed (out of focus) photograph of Pai and his family in the foreground (Brokaw, 2018; *Justice Department Documents and Publications*, 2018). The FBI traced the emails to Man's residence, where he admitted to sending the emails when initially confronted in May 2018 (2018). Man told the FBI how he was angry and upset that the FCC ignored about "80 percent of comments," and went so far as to factory-reset his smartphone to wipe out all data when FBI searched his residence (2018). If convicted, Man could face a maximum penalty of 10 years in prison for "threatening to murder a member of the immediate family of a U.S. official with the intent to intimidate or interfere with him while performing his official duties, or with the intent to retaliate" (Brokaw, 2018). Some net neutrality advocates sought threatening means to achieve net neutrality, which was clearly the wrong (and illegal) path to take since the repeal either already happened or the fate of repealing net neutrality was close to being sealed. Another net neutrality advocate domestic terrorist issued a death threat to Republican Congressman John Katko and his family two months prior to the 2017 Order hearing.

Patrick Angelo, a 28-year-old from Syracuse, New York, admitted to threatening to kill Republican Congressman John Katko and his family if he did not support net neutrality on a

recorded message on October 19, 2017. Federal prosecutors filed criminal charges against Angelo, which carried a maximum penalty of five years in prison and a \$250,000 fine (Harding, 2018). In considering the crime of violence charge, U.S. District Court Northern District of New York Judge Mae D’Agostino cited Angelo’s transcribed recorded call message. The impassioned, incoherent message by Angelo was a misguided effort to sustain net neutrality before the vote to repeal the 2015 Order rules. Angelo discussed how he would kill Congressman Katko’s family if he did not support net neutrality, and that net neutrality was more important than the “defense of the United States,” “free speech,” and “health care” (*United States of America v. Patrick D. Angelo*, 2018, p. 5). The bomb threat during the 2017 Order hearing and the two death threats by two fringe actors were alarming means for supposed net neutrality advocates to coerce state government officials to side with their beliefs.

On the other side, net neutrality opponents devised two positive defences to repealing net neutrality in the form of videos that attempted to console any disdain felt by end users. The first video was uploaded the day before the December 14, 2017 Order hearing and the second video was uploaded eight months before the December 14, 2017 Order hearing. The first video, entitled, “PSA from Chairman of the FCC Ajit Pai” (Daily Caller, 2017), spanned one-minute and forty-three-seconds and comprised of Republican FCC Chairman Ajit Pai explaining seven things end users could still do online after the enactment of the 2017 Order. The video was uploaded on December 13, 2017 and received approximately 284,400 *user-dislikes* and 12,100 *user-likes*. Out of the approximately 296,500 who reviewed the video, 96 percent of users disliked the video. The video received approximately 1.64 million views overall. According to Chairman Pai, you can still post food pictures to Instagram, you can still post photos of cute animals, you can still shop for all your Christmas presents online, you can still binge-watch your

favourite television shows, you can still be a part of your favourite fandom, you can still drive memes right to the ground, and “everything else you ever did on the Internet, like, everything; all of it; all of it” (2017). Chairman Pai presented the first six things you can do online post-2015 Order in front of a green screen. Pai was shown mixing snack ingredients together to take multiple photos of with his smartphone; holding a white golden-doodle puppy in his arms and taking a selfie-photo; getting excited about purchasing cheap fidget spinners in bulk and solar eclipse glasses while dressed in a Santa Claus suit; enjoying watching *Game of Thrones* while eating popcorn; re-enacting a scene from *Star Wars* with a lightsaber; and dancing with four other *The Daily Caller* employees to the 2013 meme-sensation *Harlem Shake*, where participants flail and convulsive their bodies to the song “Harlem Shake” by Baauer.

In the sixth segment, one of *The Daily Caller* employees dancing with Republican FCC Chairman Ajit Pai was its video producer, Martina Markota. Picked up almost immediately by mainstream media news outlets, it was reported that Markota was a promoter of the anti-Hilary Clinton conspiracy theory known as *Pizzagate* (MSNBC, 2017). To provide a bit of context, the *Pizzagate* story surfaced around November 2016 when WikiLeaks began publishing the leaked emails of John Podesta, campaign manager of Democratic Presidential-Nominee Hillary Clinton, where actors falsely claimed that Democratic Party members engage in human trafficking and child sex (pedophilia) rings in restaurants around the U.S. (Aisch et al., 2016). One of the restaurants was Comet Ping Pong, a pizzeria in Washington, DC, and was falsely identified as a place for demonic ritual abuse against children, with the story being hosted on sites like *InfoWars*, Twitter, Reddit, and 8chan (now 8kun). The conspiracy theory even triggered a shooting at Comet Ping Pong to bring down child sex slavers (2016). In effect, mainstream media news outlets pointed to the dangerous association Chairman Pai was making to Markota’s

involvement, even though Markota denied any affiliation with or support for *Pizzagate*. Markota was quoted saying that she did not suggest “that the claims against John Podesta and other Democratic Party officials are true,” but that she did “explain the claims that were being made” and that she “made the point that ‘Cheese Pizza’ is a codeword used by pedophiles online” (Kulwin, 2017). Markota’s defence was eclipsed by net neutrality advocates who indicated the tainted connection between Chairman Pai and *Pizzagate* and his decision to shoot and release a premature *public service announcement* video ahead of the 2017 Order hearing with *The Daily Caller*, a conservative news and opinion site.

In the second video by net neutrality opponents, Verizon posted a video to YouTube and told viewers that it was a supporter of net neutrality. The video was removed because of the high number of *user-dislikes* it received. Luckily, another user (Series of Tubes Person, 2017) reuploaded a copied version of the video to YouTube. The video spanned two-minutes and fifty-six-seconds and included an interview with Verizon Executive Vice President and Chief Administrative Legal and Public Policy Officer, Craig Silliman, and an associate who went by ‘Jeremy’ (2017). According to Silliman, the FCC’s announcement for a NPRM (notice-of-proposed-rulemaking) to challenge the 2015 Open Internet Order was not an invitation to “kill[] the net neutrality rules” nor were any ISPs asking the FCC “to kill the Open Internet rules” (2017). Instead, ahead of the 2017 Order hearing, the FCC was simply “looking to put the Open Internet rules in an enforceable way on a different legal footing” (2017). Silliman added that “it’s not sexy to say, ‘they’re changing the legal foundation for this;’ it’s only sexy if they say, ‘they’re killing the Open Internet’” (2017). Silliman then gave an analogy to explain Title II public utility regulation: if homeowners prohibited actors from walking up their front walkways, so “the mailman can’t deliver mail [or] Girl Scouts can’t sell cookies,” then the mayor could pass

a rule so no one could prohibit actors from walking up their front walkways (2017). But to pass this rule, the mayor would require all homeowners to give the mayor complete authority over all properties. Silliman rhetorically asked Jeremy, “[h]ow are you going to feel about that?” (2017). Silliman answered his own question by reiterating that homeowners should not be OK with giving the mayor complete authority, even if the mayor promised to not exercise their extended authority. Furthermore, Silliman said that all ISPs supported net neutrality rules from two years ago but were “not OK with giving the FCC unbounded jurisdiction” since the FCC could tell ISPs how to conduct their own services, user interaction protocols, and price controls (2017). Under Republican FCC Chairman Ajit Pai’s FCC, the public utility regulation would be removed and net neutrality rules would be put “on a different legal footing so they’re still enforceable” (2017).

Just like CALinnovates’ Mike Montgomery’s disconnect between his call to pass net neutrality principles into law through legislation and his condemnation of Title II unnecessarily extending the FCC’s regulatory reach, Silliman’s arguments were similarly disjointed. Silliman called for placing net neutrality rules on a different ‘legal footing’ while removing the Title II public utility classification. To advocate for net neutrality is to advocate for the classification of ISPs as Title II *common carriers* offering *telecommunication* services. Net neutrality advocate and journalist Nilay Patel (2017) produced a table in her article on *The Verge* entitled, “Everything Verizon Says in this Terrible Video About Net Neutrality vs. the Truth” to directly respond to some of the claims made by Silliman.

Patel (2017) pointed out that Silliman ignored the fact that “Verizon sued the FCC to kill net neutrality in the past” and that losing that case was why the FCC “had to use the stronger Title II approach in the first place.” According to Patel, the ‘legal footing’ Silliman referenced

was vague since ISPs challenged the FCC's authority to implement net neutrality rules under Title II classification. When the FCC attempted to pass similar net neutrality rules under Title I classification, Verizon launched and won a lawsuit that found net neutrality rules had to be implemented under Title II classification. If BIAS (broadband Internet access service) was not governed under Title II classification, then net neutrality protections would be considered ineffective. Silliman's 'legal footing' statement perhaps referred to the FCC exploring a legal clause that outlined a voluntary promise for ISPs to uphold no blocking, throttling, or paid prioritization in ISPs' terms of service agreements. In Patel's eyes, Verizon and all other ISPs did not and do not support net neutrality. Furthermore, Patel was critical of Silliman's *mayoral governance over homeowners' property* analogy. Patel argued that Verizon was one monopoly out of a scarce few that provided mass broadband networks across public lands that connect to users' homes. To attribute ISPs to 'homeowners,' edge providers to 'the mailman' and 'Girl Scouts,' and 'the mayor' to the FCC was inaccurate since Verizon did not operate private homes with small front walkways. Patel (2017) argued that BIAS was a public resource and therefore should be governed as a public utility.

The reactions and defences to repealing net neutrality saw a bomb threat during the 2017 Order hearing and two death threats to state government officials made by net neutrality advocates, and two videos to explain the implications of repealing net neutrality by net neutrality opponents. As a lead-up to and during the FCC's call for the public to submit comments to its Electronic Comment Filing System (ECFS) between April 26, 2017 until August 30, 2017, another negative reaction transpired. John Oliver from HBO's *Last Week Tonight with John Oliver* encouraged users to comment on the repeal of net neutrality protections and, according to the FCC, crashed the FCC's servers (i.e., a DDoS -- distributed denial-of-service attack) due to

the influx of data traffic. Of the 22 million (now 23.9 million) comments submitted, 18 million were allegedly fraudulent and suspected to come from Russian IP and email addresses and bots, and with some commenters who were fabricated and some actors who had their identities stolen.

5.2.5 – The ECFS Fraudulent Comments Debacle

The last section, 5.2.5, is synthesized into four connected narrative subsections that discuss the FCC’s Electronic Comment Filing System (ECFS) comments debacle. The first narrative describes two net neutrality YouTube-posted segments originally aired on the HBO show *Last Week Tonight with John Oliver* to call on viewers to submit comments to the FCC’s ECFS site and how 18 million out of 22 million (now 23.9 million) comments submitted were allegedly fraudulent. John Oliver, a net neutrality advocate, explains in the first segment what Verizon means by looking to put the 2015 Open Internet Order rules in an enforceable way on a different ‘legal footing.’ Here, ISPs wish to revert BIAS (broadband Internet access service) back to Title I classification. Oliver cites examples of ISPs blocking competitors’ applications and how ISPs’ promise to state net neutrality protections in their terms of service agreements is disingenuous. Oliver also exposes the misaligned statements between Republican FCC Chairman Ajit Pai and ISP CEOs regarding infrastructure investment numbers and then-Republican President Elect Donald Trump’s misinformed statement about equating net neutrality to the Fairness Doctrine from 1949. Oliver tells viewers to submit comments on the URL <http://gofccyourself.com> to support net neutrality rules backed by Title II. In the second segment, Oliver cites reports on how millions of submitted comments used fake names and how the flooding of comments was *astroturfed* (i.e., creating the illusion of ‘grassroots’ support). Oliver also calls for future commenters to resist using vulgar, obscene, and racist references in their comment submissions.

The second narrative explores the alleged fraudulently-submitted comments stemming from users with Russian IP and email addresses and from bots, and with some commenters who were fabricated and some actors who had their identities stolen. Journalists, data research companies, and law enforcement agencies led investigations into the ECFS comments debacle. Both net neutrality advocates and opponents report statistics pertaining to the percentage of comments utilizing either duplicate email addresses or temporary email addresses to be used for a short time; the percentage of all comments that made up the top seven, 10, and 30 repeated comments; and the rate at which identical (or nearly identical) comments were posted at the exact same date and time. Net neutrality advocates Democratic New York Attorney General Eric Schneiderman and Democratic FCC Commissioner Jessica Rosenworcel make specific references to living and deceased actors who had their identities stolen. Net neutrality advocates criticize the FCC for proceeding with the 2017 Order hearing with state and federal identity theft laws being ignored and for withholding its server logs from being reviewed.

The third narrative shows experts asking FCC members about its ECFS forum by questioning its procedures, purposes, and impacts in shaping its rule-making process. Both net neutrality advocates and opponents criticize the FCC for its lack of ability to defend against fraudulent filings. Net neutrality advocates and opponents are unconcerned by the fact that net neutrality comments were being misfiled and ended up in other dockets; instead, concerns centre around the mechanics of ECFS procedures to call for, collect, and organize comments. Both sides question the purpose behind generating public comments and to what extent the commenting process was impactful to the FCC in rendering policy decisions, as well as recommendations to deter fraudulent comments from being filed in the future. Questions also centre on how legal analysis of the filings were completed, what guidelines were used to analyze

comments of substance, the lack of cooperation with ASG Schneiderman, and the nature of work by FCC staff to complete its responsibilities.

The fourth narrative exemplifies two separate legal challenges: *New York Times Co. v. FCC* (2018) and *Collier v. FCC* (2017). The former case against the FCC was launched for failure to cooperate to reasonably submit FOIA (Freedom of Information Act) requests from its records on IP addresses and User-Agent headers from its ECFS site. The latter case against the FCC was launched for failure to cooperate to reasonably submit FOIA requests from its records on the alleged DDoS (distributed denial-of-service) attacks and *astroturfing* of comments. The FCC stalls and flatly denies the string of FOIA requests by the *Times* and *Collier*, which generates a set of legal arguments against the FCC's ghosting of further communications. The two legal cases are assessed to (1) appreciate how access to information to research the ECFS comments debacle was integral for investigative journal outlets to pursue and (2) act as a preview to the last net neutrality socio-legal theme: law and regulation.

5.2.5.1 – *Last Week Tonight with John Oliver*

This first subsection describes two net neutrality YouTube-posted segments originally aired on the HBO show *Last Week Tonight with John Oliver* to call on viewers to submit comments to the FCC's ECFS (Electronic Comments Filing System) site and how 18 million out of 22 million (now 23.9 million) comments submitted were allegedly fraudulent. John Oliver, a net neutrality advocate, explains in the first segment what Verizon means by looking to put the 2015 Open Internet Order rules in an enforceable way on a different 'legal footing.' Here, ISPs wish to revert BIAS (broadband Internet access service) back to Title I classification. Oliver cites examples of ISPs blocking competitors' applications and how ISPs' promise to state net neutrality protections in their terms of service agreements is disingenuous. Oliver also exposes

the misaligned statements between Republican FCC Chairman Ajit Pai and ISP CEOs regarding infrastructure investment numbers and then-Republican President Elect Donald Trump's misinformed statement about equating net neutrality to the Fairness Doctrine from 1949. Oliver tells viewers to submit comments on the URL <http://gofccyourself.com> to support net neutrality rules backed by Title II. In the second segment, Oliver cites reports on how millions of submitted comments used fake names and how the flooding of comments was *astroturfed* (i.e., creating the illusion of 'grassroots' support). Oliver also calls for future commenters to resist using vulgar, obscene, and racist references in their comment submissions.

To understand how the FCC's ECFS comments procedure became a disaster with its flood of fraudulent comments, I begin at the source of the debacle. The *Last Week Tonight with John Oliver* television segment, called, "Net Neutrality II: Last Week Tonight with John Oliver (HBO)," was uploaded to YouTube on May 8, 2017 (LastWeekTonight, 2017a). The segment received approximately 213,500 *user-likes* and 4,300 *user-dislikes*. Out of the approximately 217,800 users who reviewed the video, 98 percent of users liked the video. The video received approximately 8,439,200 million views overall. John Oliver played a video segment from Verizon's Craig Silliman and 'Jeremy' (the same segment in section 5.2.4) to show that ISPs mislead the public about their views on net neutrality by trumpeting support for a free and open Internet. Oliver understood Silliman's 'legal footing' statement to refer to when the FCC wrote net neutrality rules under Title I classification of ISPs in 2010. Verizon sued the FCC and argued that the FCC did not have rule-making authority when ISPs were classified under Title I. The court ruled that net neutrality rules could be enacted by the FCC only if ISPs were classified under Title II. When the FCC was able to regulate ISPs under the Title II classification in 2015,

Verizon, along with other major ISPs, wished to revert to Title I classification (i.e., a different ‘legal footing’).

Oliver also challenged Republican FCC Chairman Ajit Pai’s claim he made on the PBS NewsHour (2017) interview segment where he said there were no negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) “happening in the marketplace on a widespread level.” Oliver responded to this claim by citing the 2013 example of how Verizon, AT&T, and T-Mobile blocked Google Wallet on their phone services to limit the competition of digital wallet mobile applications (LastWeekTonight, 2017a). T-Mobile’s digital wallet was called ‘ISIS Mobile Wallet’ and marketed it on Twitter by saying, “[w]e’re supporting ISIS,” “[w]e are really loving ISIS,” and “[w]e have chosen to work with ISIS and hope to roll that out to everyone very soon” (2017a). Chairman Pai suggested that instead of enforcing net neutrality protections through Title II classification, ISPs could write in their terms of service agreements to users that they voluntarily agree to not obstruct or slow access to content. Oliver argued that ISPs’ terms of service agreements would be subject to change.

Oliver also argued that ISPs’ investment numbers were difficult to measure and that Republican FCC Chairman Ajit Pai’s numbers about decreased investment levels were in dispute. Oliver cited Francis Shammo, Verizon’s Executive Vice President and CEO, over what he told investors on December 9, 2014, to whom he is “legally obligated to tell the truth” (LastWeekTonight, 2017a). Shammo said that the repealing of net neutrality “does not influence the way we invest. I mean, we’re going to continue to invest in our networks and our platforms” (LastWeekTonight, 2017a). Towards the end of the segment, Oliver displayed Trump’s 2014 Twitter post that read, “Obama’s attack on the [I]nternet is another top[-]down power grab. Net neutrality is the Fairness Doctrine. Will target conservative media” (2017a). Oliver exclaimed

that Trump’s statement was the exact opposite for what net neutrality rules promised to uphold. At the end of the segment, Oliver explained that he bought the URL <http://gofccyourself.com> to redirect users from the FCC’s own convoluted process to access and leave comments on its 17-108 Restoring Internet Freedom Proceeding website.

In a follow-up segment to the “Net Neutrality II” segment, called, “Net Neutrality Update: Last Week Tonight with John Oliver (Web Exclusive),” Oliver discussed the recent flood of comments posted to the FCC’s ECFS site. This segment was uploaded to YouTube on May 14, 2017 (LastWeekTonight, 2017b), six-days after the “Net Neutrality II” segment. The video received approximately 92,500 *user-likes* and 1,200 *user-dislikes*. Out of the approximately 93,700 users who reviewed the video, 98.7 percent of users liked the video. The video received approximately 4,149,800 million views overall. Oliver showed a Fox News Business segment by conservative journalist Elizabeth Harrington from *The Washington Free Beacon*. Harrington said that many of the commenters used fake names, such as John Oliver, Donald Trump, Barack Obama, Homer Simpson, and Michael Jackson, and was reason enough to discount all comments posted to the ECFS site. Harrington also said that the flooding of comments was not a “grassroots” movement by net neutrality advocates, but rather “astroturfing” (2017b), or an activity organized by a concealed group “intended to create a false impression of a widespread, spontaneously arising, grassroots movement” (Merriam-Webster Dictionary, 2021a). Oliver reported that 128,000 identical anti-net neutrality comments were submitted, and that users told journalists they had no knowledge of the submissions (LastWeekTonight, 2017b).

At the end of the segment, Oliver pleaded with viewers to stop posting racist comments, and instead to access <http://gofccyourself.com> to “tell FCC Chairman Ajit Pai that you specifically support strong net neutrality backed by Title II oversight of ISPs” after May 18,

2017 (LastWeekTonight, 2017b). May 18, 2017 was the date when the FCC would officially vote on the net neutrality proposal. The FCC would not consider comments posted before this date “due to a procedural quirk” (2017b).

5.2.5.2 – *Russian IP & Email Addresses, Bots, & Stolen IDs*

This second subsection explores the alleged fraudulently-submitted comments stemming from users with Russian IP (Internet Protocol) and email addresses and from bots, and with some commenters who were fabricated and some actors who had their identities stolen. Journalists, data research companies, and law enforcement agencies led investigations into the ECFS (Electronic Comments Filing System) comments debacle. Both net neutrality advocates and opponents report statistics pertaining to the percentage of comments utilizing either duplicate email addresses or temporary email addresses to be used for a short time; the percentage of all comments that made up the top seven, 10, and 30 repeated comments; and the rate at which identical (or nearly identical) comments were posted at the exact same date and time. Net neutrality advocates Democratic New York Attorney General Eric Schneiderman and Democratic FCC Commissioner Jessica Rosenworcel make specific references to living and deceased actors who had their identities stolen. Net neutrality advocates criticize the FCC for proceeding with the 2017 Order hearing with state and federal identity theft laws being ignored and for withholding its server logs from being reviewed.

Fraudulent comments were rife in the FCC’s ECFS site. Fight for the Future, a non-profit advocacy group that defends technology as “a force for empowerment, free expression, and liberation rather than tyranny, corruption, and structural inequality” (Fight for the Future, 2021), sent a letter to the FCC signed by 14 actors who claimed fake comments supporting the repeal of net neutrality were filed in their names. The letter read, “[w]e are disturbed by reports that

indicate you have no plans to remove these fraudulent comments from the public docket,” and “[w]hoever is behind this stole our names and addresses, publicly exposed our private information without our permission, and used our identities to file a political statement we did not sign onto” (Giuseppe, 2017). *The Daily Caller* surveyed 10,000 pro-net neutrality filers and 39 percent denied having submitted the comment (2017).

Democratic Senator Bill Nelson cited in a Congressional debate how Chicago programmer Chris Sinchok said he noticed multiple comments that began: “The unprecedented regulatory power the Obama administration imposed on the [I]nternet is smothering innovation” (163 Cong. Rec. S. 5, 2018). Sinchok found a “near-constant rate -- 1,000 every 10 minutes -- punctuated by periods of zero comments, as if [W]eb robots were turning on and off” and found the comments were from hacked accounts (2018). Senator Nelson noted that after Sinchok and Fight for the Future blogged about how comments were attached to stolen identities, Democratic New York Attorney General Eric Schneiderman began a criminal investigation. Moreover, according to *The Wall Street Journal*, comments about “unprecedented regulatory power” were posted to the ECFS more than 818,000 times, and the *Journal* sent surveys to 531,000 email accounts associated with the duplicated comment (2018). 7,000 emails sent “bounced back, the accounts defunct,” and of the 2,757 who responded to the email, 72 percent said their comment was falsely submitted (2018). Senator Nelson also argued that some of the comments stemmed from Russian IP addresses. Senator Nelson argued that Russian influence intended to distort “the daily operations ... at the microscopic level of influencing the development of rules to carry out laws” (2018).

Accusations were also being made against the FCC about refusing to work with those who called on launching criminal investigations to solve how identities were stolen and used to

post comments on the ECFS. Democratic New York Attorney General Eric Schneiderman “found that tens of thousands of residents” in the State of New York, as well as in California, Georgia, Missouri, Ohio, Pennsylvania, and Texas, had their identities stolen (Rosenworcel, 2018). ASG Schneiderman began his press conference with Democratic FCC Commissioner Jessica Rosenworcel on December 4, 2017 by stating that “[a]t 8:20am this morning, knowing that we were holding this press conference, the FCC’s Inspector General’s Office finally emailed my team offering their assistance in our investigation. This is a big step, but given the FCC’s conduct over the past eight months, we remain skeptical” (New York Attorney General – Archived, 2017). ASG Schneiderman remained skeptical since the FCC did not respond to multiple requests to help with the investigation to narrow down who was responsible. Even ASG Schneiderman’s Assistant Press Secretary had her identity stolen by using her name and childhood home address to produce a phony comment submission. In January 2018, the Government Accountability Office (GAO) announced that it would be reviewing the ““extent and pervasiveness of fraud and the misuse of American identities during the federal rulemaking process”” (Rosenworcel, 2018).

Democratic FCC Commissioner Rosenworcel said that the FCC had not been “cooperating with law enforcement agencies. ... Two million peoples’ identities were stolen in our record. That is a federal crime under Title 18. It is also a crime in many states. We should be referring these matters to state attorneys general and the Department of Justice” (*Oversight*, 2018). Commissioner Rosenworcel was replying to the question asked by Democratic Congressman Jerry McNerney about the investigation of fake comments by the GAO at a July 25, 2018 oversight hearing of the FCC. Commissioner Rosenworcel also urged at a public discussion held by New America to not give in to “cynicism” from when “public channels are

flooding with comments from dead people, stolen identities, batches of bogus filings, and commentary that originated from Russian e-mail addresses. We can't let this deluge of fake filings further delegitimize Washington's decisions and erode public trust" (2018 FCC LEXIS 1456).

Democratic Congressman Frank Pallone requested that the U.S. Department of Justice and the FBI investigate the false filings in a June 28, 2017 letter to Republican U.S. Attorney General Jeff Sessions and Acting Director of the FBI, Andrew McCabe. Congressman Pallone also identified that about "450,000 identically worded comments [were] filed by an unidentified party" and that some of the comments may have used "information obtained from data breaches" (Sandoval, 2017, p. 11). Net neutrality advocate Catherine Kissée-Sandovál (a law and communications professor at Santa Clara University School of Law – Broadband Institute of California) reiterated that Congressman Pallone expressed concern that "the sheer number of these potentially false comments suggest a coordinated attempt to materially mislead the FCC, and therefore a coordinated attempt to break federal law" (p. 11). In addition, Professor Kissée-Sandovál criticized the FCC's response to inquiries about not releasing FCC server logs in response to Freedom of Information Act (FOIA) requests since the logs may "contain private information such as IP addresses" (p. 11). Professor Kissée-Sandovál argued that the FCC could have redacted private information from server logs before producing them. To move the investigations forward, state and federal law enforcement officials should have used "subpoenas, discovery requests, and grand juries" to help narrow down who (domestic or foreign) may be responsible for identity theft and data breaches (p. 11). The parallel was drawn between suspected Russian influence during the 2016 U.S. presidential election campaigns and the 2017 French presidential elections where cyber troops may have released malicious bots to falsely

popularize political issues to give the impression of grassroots support (p. 12). *Cyber troops* can be defined as a collection of agents (e.g., military or political party factions) attempting to sway public opinion, mainly through social media platforms (p. 12).

One research body that did investigate the fraudulent ECFS-submitted comments was Pew Research Center. Pew Research Center is a non-partisan, non-profit, non-advocacy “fact tank” that informs the public about “issues, attitudes, and trends” through “public opinion polling, demographic research, content analysis and other data-driven social science research (Pew Research Center, 2021). On November 29, 2017, Pew Research Center released a findings report, entitled, “Public Comments to the Federal Communications Commission About Net Neutrality Contain Many Inaccuracies and Duplicates” (Hitlin et al., 2017). There were three notable findings in the report. The first notable finding was about how many submissions seemed to include false or misleading personal information with 57 percent of the comments utilizing either duplicate email addresses or temporary email addresses created to be used for a short time before being discarded (p. 3). Also, identical individual names appeared thousands of times in the ECFS comment submissions, as shown in Table 22.

Table 22

Top 15 Most-Common Names Provided to the FCC’s ECFS

Thousands of submissions to FCC featured duplicate ‘names’

Top 15 most-common names provided on posts submitted to the FCC’s net neutrality comment website

	Name listed on the FCC’s comment site	Number of submissions
1	Net Neutrality	16,983
2	The Internet	7,470
3	Pat M	5,910
4	net neutrality	5,153
5	John Smith	3,997
6	John Johnson	3,133
7	Smith	3,121
8	Michael Smith	2,708
9	Mary Johnson	2,635
10	James Smith	2,625
11	David Smith	2,576
12	Robert Smith	2,442
13	17-108	2,439
14	Michael Williams	2,237
15	MyNameJeff	2,167

Source: Pew Research Center analysis of online submissions to the FCC’s net neutrality public comment form from April 27 to Aug. 30, 2017.

“Public Comments to the Federal Communications Commission About Net Neutrality Contain Many Inaccuracies and Duplicates”

PEW RESEARCH CENTER

Note. This table is reproduced from Pew Research Center (Hitlin et al., 2017, p. 4).

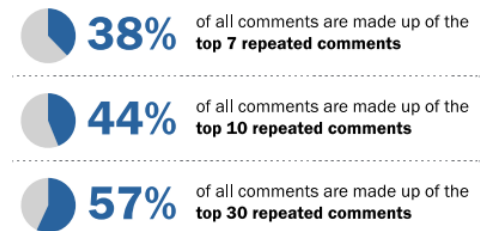
The second notable finding was the evidence of organized campaigns to flood the ECFS with repeated messages. Of the (at the time) 21.7 million comments posted, 6 percent were unique, and the other 94 percent were submitted multiple times (Hitlin et al., 2017, p. 3). Furthermore, the seven most-submitted comments (six of which were anti-net neutrality) comprised 38 percent of all submissions (p. 3). Figure 13 summarizes this second notable finding.

Figure 13

Percentages of Top Seven, 10, and 30 Repeated Comments and Percentages of Comments Appearing Once, Two–100,000 Times, 100,000–500,000 Times, and More Than 500,000 Times in the FCC’s ECFS

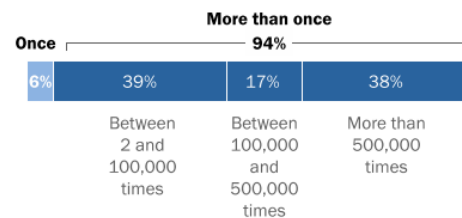
Small number of FCC net neutrality comments made up a large portion of the total submitted

% of FCC net neutrality comments in each group



Most appeared more than once; only 6% of comments were unique

% of FCC net neutrality comments that appeared ...



Source: Pew Research Center analysis of online submissions to the FCC's net neutrality public comment form from April 27 to Aug. 30, 2017.

"Public Comments to the Federal Communications Commission About Net Neutrality Contain Many Inaccuracies and Duplicates"

PEW RESEARCH CENTER

Note. This figure is reproduced from Pew Research Center (Hitlin et al., 2017, p. 6).

Pew Research Center's third notable finding was how thousands of comments were submitted at precisely the same moment. On nine different occasions, more than 75,000 comments were submitted at the same time with identical or highly similar comments, where three of these occasions featured variations of both pro and anti-net neutrality messages (Hitlin et al., 2017, p. 8). There were also five separate occasions when the exact same text was submitted more than 24,000 times at precisely the same moment (p. 9), as depicted in Table 23.

Table 23

Five Occasions Where 24,000 or More Identical Comments Were Submitted at the Same Time of Day to the FCC's ECFS

On at least five occasions, more than 24,000 exactly identical net neutrality comments were submitted to the FCC in a single second

Number of FCC net neutrality comments

	Date	Time (EDT)	Number of submissions	Beginning of comment text
1	July 17	4:53:08 p.m.	120,425	The FCC's Open Internet Rules (net neutrality rules) are extremely important to me. I urge you to protect them ...
2	May 28	8:23:51 p.m.	90,458	Title II is a Depression-era regulatory framework designed for a telephone monopoly that no longer exists. It was wrong to apply it to the Internet and the FCC should repeal it and go back to the free-market approach that worked so well.
3	July 17	4:39:21 p.m.	84,731	The FCC's Open Internet Rules (net neutrality rules) are extremely important to me. I urge you to protect them ...
4	May 26	3:25:35 p.m.	74,810	Obama's Net Neutrality order was the corrupt result of a corrupt process controlled by Silicon Valley special interests. It gives some of the biggest companies in the world a free ride at the expense of consumers and should be immediately repealed!
5	May 18	8:53:00 p.m.	24,163	In 2015, wealthy leftist billionaires and powerful Silicon Valley monopolies took the internet out of the hands of the people and placed it firmly under the thumb of the federal government, monopolies like Google and global billionaires like George Soros.

Note: Data here only include matches with a cosine similarity value of 1 on a scale of 0-1.

Source: Pew Research Center analysis of online submissions to the FCC's net neutrality public comment form from April 27 to Aug. 30, 2017. "Public Comments to the Federal Communications Commission About Net Neutrality Contain Many Inaccuracies and Duplicates "

PEW RESEARCH CENTER

Note. This table is reproduced from Pew Research Center (Hitlin et al., 2017, p. 9).

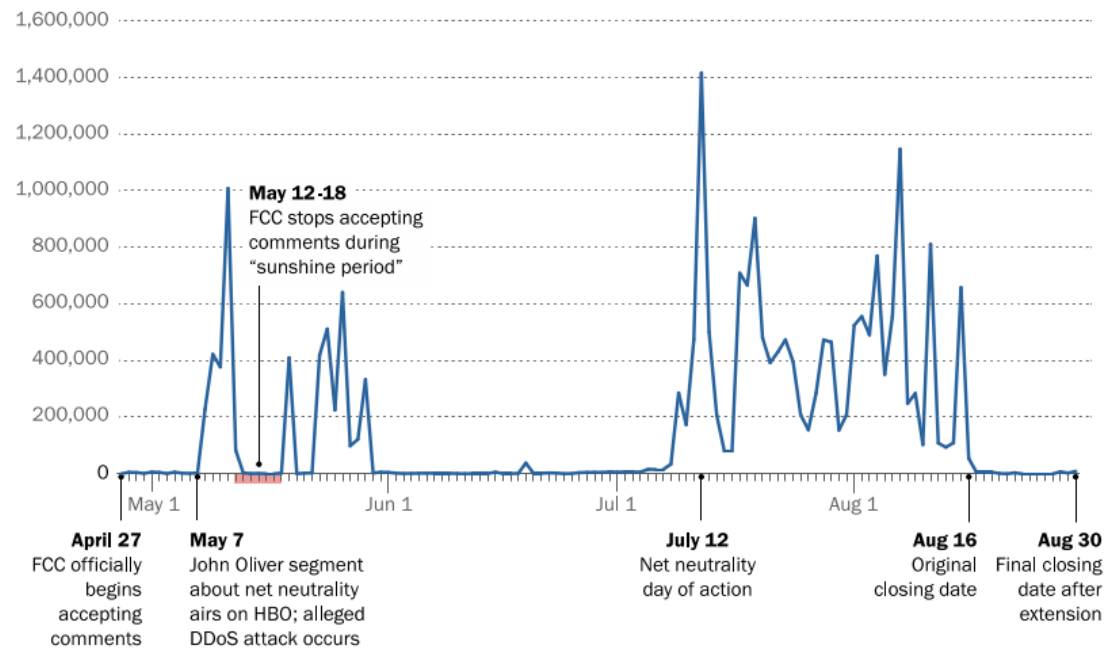
In addition to the five occasions where 24,000 or more identical comments were submitted on the exact same days at the exact same times to the FCC's ECFS site, Pew Research Center captured high peaks and low valleys in the number of comments submitted between April 27 and August 30, 2017. The sharp upward movements in Figure 14 show the influx of comments submitted on particular days, suggesting that bulk comments were submitted at once.

Figure 14

Number of Comments Submitted Per Day Between April 27–August 30, 2017 to the FCC's ECFS

FCC net neutrality comment period marked by bursts of intense activity, long periods of inactivity

Number of comments per day, April 27-Aug. 30, 2017



Source: Pew Research Center analysis of online submissions to the FCC's net neutrality public comment form.
"Public Comments to the Federal Communications Commission About Net Neutrality Contain Many Inaccuracies and Duplicates"

PEW RESEARCH CENTER

Note. This figure is reproduced from Pew Research Center (Hitlin et al., 2017, p. 11).

Pew Research Centre's three notable findings suggested that batches of identical comments were submitted in bulk to the FCC's ECFS site under duplicate false names, email addresses, and resident addresses on particular days at particular times. The FCC's ECFS process was supposed to utilize an email verification feature to substantially reduce the amount of illegitimate comments submitted. Net neutrality advocates and opponents were both asking why this feature failed during the span of the public comment period. The ECFS comments debacle sparked basic questions regarding ECFS procedures and the intended purpose and impact of such proceedings during decision-making deliberations at the federal commission level. Both net

neutrality advocates and opponents wanted to know how the ECFS influenced the FCC's rule-making process when considering to enact policies.

5.2.5.3 – Questioning ECFS Procedures, Purposes, & Impacts

This third subsection shows experts asking FCC members about its ECFS (Electronic Comments Filing System) forum by questioning its procedures, purposes, and impacts in shaping its rule-making process. Both net neutrality advocates and opponents criticize the FCC for its lack of ability to defend against fraudulent filings. Net neutrality advocates and opponents are unconcerned by the fact that net neutrality comments were being misfiled and ended up in other dockets; instead, concerns centre around the mechanics of ECFS procedures to call for, collect, and organize comments. Both sides question the purpose behind generating public comments and to what extent the commenting process was impactful to the FCC in rendering policy decisions, as well as recommendations to deter fraudulent comments from being filed in the future. Questions also centre on how legal analysis of the filings were completed, what guidelines were used to analyze comments of substance, the lack of cooperation with ASG Schneiderman, and the nature of work by FCC staff to complete its responsibilities.

The FCC's net neutrality ECFS comments debacle attracted criticism from net neutrality advocates and opponents for the ineptitude of the ECFS database to guard against fraudulent filings. The adverse effects of fraudulent pro and anti-net neutrality comments began seeping into other dockets since troves of users were misfiling comments. Pillsbury Winthrop broadcast attorney, Scott Flick, said that it seemed "like every Media Bureau docket has a pile of net neutrality comments in it" (*Communications Daily*, 2017g). Net neutrality advocates and opponents were more concerned about the mechanics behind the ECFS procedures to call for, collect, and organize comments. Questions were raised about the intent behind the FCC's ECFS:

what was the purpose of generating public comments and to what extent was the comment process impactful to the FCC rendering its decisions on telecommunications policy? Did the outrage from experts matter about alleged Russian influence, bots, and stolen identities corrupting the FCC's ECFS public docket? And what investigations were underway to fix the ECFS in future NPRM (notice-of-proposed-rulemaking) calls? What recommendations by experts were made to deter fraudulent comments from being filed? Experts who questioned the ECFS procedures, purposes, and impacts did so with cynicism and skepticism creeping into their voices. Experts who responded to questions about ECFS procedures, purposes, and impacts did so with vague and incomplete answers.

A senior staff member at the FCC said that its ECFS website does not have “a counting procedure where you decide which side placed more comments in the record and that side wins” (Giuseppe, 2017). The numbers of comments filed for or against the 2017 Order proposal would not impact the proceeding to repeal net neutrality. Specific arguments that would be impactful in shaping FCC decision-making were factual “arguments and data ... [that had] sound legal backing” (2017). This clarification made by FCC staff did not stop Fight for the Future, a non-profit advocacy group and defender of technology for all, to ask the FCC to “notify everyone who’s been impacted, remove the fraudulent comments, release any information it may have on who filed them and call for an investigation into their possible illegality, citing laws against ‘making false statements’” (2017). Optimism for protecting the ECFS procedures was expressed by public-interest lawyer and lecturer at Georgetown University, Andrew Schwartzman, who said that “[c]ontrary to what some have said, it is not irrelevant when millions of Americans speak out,” and that even though most of the comments “may not be particularly useful in

fashioning the legal and factual findings, ... they inform the decision-makers on how people value and use the [I]nternet”” (*Communications Daily*, 2017f).

The NPRM solicited input on a legal basis for rules beyond Title II classification. Gus Hurwitz, co-director of the Space, Cyber and Telecom Law program at the University of Nebraska College of Law, also confirmed that comments that would get the most traction from the FCC would essentially introduce ““new empirical data or analysis of that data into the record,”” raise ““methodological concerns about other analyses of data,”” and introduce ““new but sound legal theories”” (*Communications Daily*, 2017f). Larry Downes, Senior Fellow at the Georgetown Center for Business and Public Policy, agreed that comments that suggested the FCC perform a cost-benefit analysis of the effects of Title I reclassification were important. Most experts agreed that the ECFS did not exist as a pool to tally public *yea* and *nay* votes. Lawrence Spiwak, President and co-founder of the Phoenix Center for Advanced Legal & Economic Public Policy Studies, a non-profit organization that studies public-policy issues on the law and economics of the digital age, said that the ECFS is not a plebiscite. ““The FCC will find probably 20 or 30 comments ‘tops’ to be useful in developing the order”” (2017f).

On February 13, 2018, 24 members of Congress and Ranking Members from the Committee on Energy and Commerce sent Republican FCC Chairman Ajit Pai a letter (*House of Representatives of the Committee on Energy and Commerce*, 2018) to request information to help understand how the FCC managed the record in the net neutrality proceeding about two months before the 2017 Order hearing. The Committee aimed to restore public confidence in the integrity of the ECFS process and give transparency to U.S. citizens by asking 16 questions, four of which reviewed how legal analysis of the filings were completed, what guidelines were used

to analyze comments of *substance*, the lack of cooperation with Democratic New York Attorney General Eric Schneiderman, and the nature of work by FCC staff to complete its responsibilities.

The Committee's first question asked what public process the FCC used to consider how to manage the novel issue of never handling a docket of this size before, especially with so many fraudulent filings. Were FCC staff given guidelines and internal legal analysis to follow? The Committee's second question referenced the FCC's 2017 Order's note that it did not rely on "comments devoid of substance, or 'non-substantive comments'" (*House of Representatives of the Committee on Energy and Commerce*, 2018). The Committee wished to know precisely what analysis the FCC conducted to consider which comments were devoid of substance or non-substantive, and asked to provide guidelines given to staff who made these considerations. The third question asked by the Committee grilled Republican FCC Chairman Ajit Pai for failing to cooperate with Democratic New York Attorney General Eric Schneiderman with his office's investigation into the fraudulent use of U.S. citizens' identities in the record. The Committee directly asked, "[p]lease explain why the FCC decided not to cooperate with this criminal investigation. Please provide any internal communications about this decision and any legal analysis generated to support this decision" (2018). The last question asked by the Committee inquired about how FCC staff reviewed every comment. The Committee asked about how many FCC staff hours were devoted to review the record, whether the staff was assigned to work on the docket full-time, and whether the staff worked overtime to complete the review of the record by a set date. Moreover, the Committee asked how much of the FCC's budget was spent to compensate staff and to pay for overtime to review the docket (2018).

Questions about procedural efforts, hours, and money spent to wade through the comments came six months after the commenting period ended. During the commenting period,

on June 20, 2017, the Subcommittee of Financial Services and General Government Appropriations for 2018 asked FCC members about ECFS procedures (*Financial Services*, 2017). Democratic Senator Chris Coons asked Republican FCC Chairman Ajit Pai how the FCC would consider the public comments received and how it would weigh concerned voices about Internet freedom (2017). Chairman Pai responded that,

[t]he FCC could have chosen to proceed through what is known as a declaratory ruling, simply saying that what the previous FCC did is null and void as a matter of law and move ahead. But it was important to us to make sure that we had the notice and comment process that is prescribed by the Administrative Procedure Act. And so that is why we had a full 90 days of public comments in addition to the 3 weeks before the FCC’s vote to allow for robust public comments. Once the public comment period closes[,] ... we will take stock with the FCC’s terrific staff and try to figure out whether the FCC should move ahead, and if so, how. And we will be guided, of course, by the principles of substantial evidence as enunciated by the D.C. Circuit, by the facts that are in the record and, of course, by the motivation to figure out what is in the public interest (2017).

Republican FCC Chairman Ajit Pai’s response was curt and void of any detail that walked senators through the motions of how comments factored into the decision to repeal Title II classification. The FCC majority wrote in the 2017 Order how it rejected calls to delay adoption of the Order “out of concerns that certain non-substantive comments (on which the Commission did not rely) may have been submitted under multiple different names or allegedly ‘fake’ names” (Restoring Internet Freedom, 2017, p. 194). Even days before the 2017 Order, Chairman Pai told senators that the FCC would not delay the hearing to investigate reports of mass fraudulent comments. Chairman Pai said that “[i]nstead of focusing on automated or form

submissions, the Commission has prioritized consideration of substantive comments that bear on the legal and policy consequences of its actions,” saying its decision-making followed a court substantial evidence standard (*Communications Daily*, 2018b). Here, there was no legal obligation to adopt an identity-verification procedure. The FCC added that it kept the fraudulent comments in its record because it did not want to ““hinder full and robust public participation in such policymaking proceedings by encouraging collateral wrangling over the truthfulness of the parties’ statements”” (Restoring Internet Freedom, 2017, p. 194). The FCC then consoled any concerns over the presence of “identical or nearly-identical non-substantive comments that simply convey[ed] support or opposition” by reiterating that those comments did not impede its “ability to identify or respond to material issues in the record” (p. 194).

Travelling forward 22 months after the 2017 Order hearing, Republican FCC Chairman Ajit Pai found himself answering questions on Squawk Alley on CNBC with host Jon Fortt about *BuzzFeed*’s investigation into how cable lobbyists funded consulting firms to flood the ECFS with fraudulent comments (CNBC Television, 2019). Fortt asked Chairman Pai, “[d]id the FCC make a mistake not taking these fake comments seriously enough when New York was raising concerns about it, and what do you see as being the future of public comments in this era of so much fake communication” (2019)? Chairman Pai fired his response back by asserting: “the U.S. Court of Appeals for the DC Circuit recently reaffirmed that the FCC abided by the Administrative Procedure Act, including by having substantial evidence for its decision. And if you look at our decision, we didn’t rely on all the extraneous commentary ... that came, for example, [from] the 400,000 or so fake comments ... reportedly coming from Russia. We relied on substantial evidence that was in our record” (2019).

According to Democratic FCC Commissioner Jessica Rosenworcel, the Administrative Procedure Act (APA) was a law from 1946 that set up the framework for rulemaking. When an agency like the FCC proposes new policies, it gives the public “an opportunity to voice their opinion[s],” for which the FCC may adopt “final rules along with a general statement of basis and purpose” (2018 FCC LEXIS 271). In 1980, the Regulatory Flexibility Act amended the APA “to ensure agencies consider the impact of proposed rules on small businesses” (2018). Commissioner Rosenworcel voiced concerns about the “apparent civic infrastructure ... for accepting public comment in the rulemaking process [since it] is not built for the digital age” (2018). Professor Catherine Kissée-Sandováł (a law and communications professor at Santa Clara University School of Law – Broadband Institute of California) made a strong recommendation to deter and prevent fraudulent comments from percolating in future FCC docket filings. The FCC’s ECFS site should clearly “display a note informing filers that submission constitutes the filer’s certification under penalty of perjury that the filer is authorized to submit the material on behalf of the named commenter” (Sandoval, 2017, pp. 9–10). Regardless of any future preventative methods against submitting fraudulent comments, the damage had been done. Investigative reporters wanted answers from the source to piece together the origins and methods for deploying fraudulent comments. Legal challenges to the FCC in the form of FOIAs (Freedom of Information Act) were being filed.

5.2.5.4 – FOIA Legal Challenges

This fourth subsection exemplifies two separate legal challenges: *New York Times Co. v. FCC* (2018) and *Collier v. FCC* (2017). The former case against the FCC was launched for failure to cooperate to reasonably submit FOIA (Freedom of Information Act) requests from its records on IP (Internet Protocol) addresses and User-Agent headers from its ECFS (Electronic

Comments Filing System) site. The latter case against the FCC was launched for failure to cooperate to reasonably submit FOIA requests from its records on the alleged DDoS (distributed denial-of-service) attacks and *astroturfing* of comments. The FCC stalls and flatly denies the string of FOIA requests by the *Times* and *Collier*, which generates a set of legal arguments against the FCC's ghosting of further communications. The two legal cases are assessed to (1) appreciate how access to information to research the ECFS comments debacle was integral for investigative journal outlets to pursue and (2) act as a preview to the last net neutrality socio-legal theme: law and regulation.

The FCC's ECFS comments debacle was an embarrassment and testament to the FCC's ability to host public debates. On March 8, 2017, Democratic Senator Tom Udall pointed out during an oversight of the FCC hearing that the FCC was supposed to be a federal agency that oversaw ISPs and Internet policy and "should be a flagship agency when it comes to using the best IT tools available" (*Oversight*, 2017). Senator Udall asked Republican FCC Chairman Ajit Pai how he planned to prioritize the FCC's IT reform efforts to avoid the misgivings of when a record number of U.S. citizens tried to submit comments on net neutrality in 2015 but could not since the site crashed. Chairman Pai directly wrote back to Senator Udall to express how he was working "with the Office of Managing Director to review all IT projects for the next fiscal year to determine the success/fail ratio of prior year projects. However, I believe that the Commission has made considerable progress since the system crash described by you, including appropriate upgrades and maintenance improvements" (2017). Chairman Pai added that his team would attempt to "pinpoint the cause of past deficiencies and develop leadership tools to avoid system breakdowns" (2017).

Fast-forward two months later to May 7, 2017 when Oliver’s “Net Neutrality II: Last Week Tonight with John Oliver (HBO)” segment aired on HBO and the FCC experienced a 3,000 percent increase in website traffic. Comment filers began to experience delays and an inability to submit, which forced the FCC’s Chief Information Officer to issue a statement the next day that the FCC’s ECFS site had been subject to multiple DDoS attacks (*New York Times Co. v. FCC*, 2018). As plaintiffs in the *New York Times Co. v. FCC* (2018) case pointed out in their complaint, “[a] subsequent government investigation by the FCC Office of Inspector General, however, determined that the FCC’s statement was false.” The Inspector General found that instead of multiple DDoS attacks, the failure of the FCC’s ECFS site could be attributed to the increase in traffic following Oliver’s segment as well as the “‘high volume of traffic resulting from system design issues’” (2018). Moreover, members of Congress submitted a letter to Republican FCC Chairman Ajit Pai questioning why the FCC “‘allowed the public myth ... to persist’” and its “‘misrepresentations to remain uncorrected for over a year’” (2018).

Two reporters from *The New York Times*, Nicholas Confessore and Gabriel Dance, submitted FOIA requests to the FCC on June 22, 2017. The plaintiffs sought Web server logs, “IP addresses, timestamps, and comments” from all public comments submitted to the FCC’s ECFS site between April 26–June 7, 2017 to perhaps better understand Russia’s alleged influence in the matter (*New York Times Co. v. FCC*, 2018). More specifically, the *Times* requested Web server logs for requests submitted to “‘<https://www.fcc.gov/ecfs/filings/> and any submissions through the FCC’s API (Application Programming Interface)’” (2018). The request sought: “‘(1) [s]erver logs for both GET and POST requests; (2) [t]he date/time stamp of each request; (3) [t]he full query including query strings; (4) [t]he IP address of the client making the request; (5) [t]he browser USERAGENT; and (6) [t]he following headers when available:

Accept, Accept-Encoding, Accept-Language, Connection, Host, DNT, Upgrade-Insecure-Requests, Via, X-Forwarded-For” (2018). On July 21, 2017, the FCC denied the *Times*’ request since the information contained personally identifiable information and therefore could not be released since it fell under FOIA *Exemption 6* (2018). FOIA *Exemption 6* refers to how government agencies have the right to withhold information when that information is deemed an invasion of personal privacy (USDOJ – OIP, 2004).

Four days later, the *Times* appealed the FCC’s denial by arguing that *Exemption 6* did not apply to the requested record since it would not warrant a clear invasion of privacy, especially since anyone could see the names, addresses, and telephone numbers of commenters on the ECFS site. The *Times* also argued that even if *Exemption 6* did apply, the FCC was “obligated to redact or segregate exempt materials rather than withhold the records in full” (*New York Times Co. v. FCC*, 2018). Amidst email and telephone communications between the *Times* and the FCC to avoid litigation, the FCC argued that the requested records would also “reveal sensitive information about the security measures” that protected the FCC’s ECFS process and that the request was “overly burdensome” to fulfill (2018). On September 22, 2017, the *Times* narrowed its request to eliminate certain header information (i.e., Accept, Accept-Encoding, Accept-Language, Connection, Host, DNT, Upgrade-Insecure-Requests, and Via) to meet the FCC’s security measures concern, but still requested the FCC provide ““X-Forwarded- For header, date/time stamp of each request, the full query including query strings, the IP address of the client making the request, and the browser USERAGENT” (2018).

On December 15, 2017, the FCC told the *Times* that their updated request still did not satisfy its security measures concern. Both parties discussed via telephone a set of parameters that would address the concerns. On December 21, 2017, the *Times* formally submitted a second

proposed request and sought: “the comment, the originating IP address, the date and time stamp, and the User-Agent header” (*New York Times Co. v. FCC*, 2018). In its proposal, the *Times* also reassured the FCC that it had “no way of knowing the specifics of the architecture used” in the ECFS site and that by asking for only four data points that it limited the number of joins or database lookups required to fulfill the request (2018). The *Times* assumed that the FCC kept a “relational database” that separated “information across several tables and perhaps several databases” that would make it less burdensome to retrieve the data, and that “no manual redactions would be required” (2018). On January 29, 2018, the FCC submitted a supplemental response to its July 21, 2017 denial, but never formally responded to the *Times*’ July 25, 2017 administrative appeal of its denied request. The FCC reiterated that the records were exempt from disclosure under FOIA *Exemption 6* since commenters’ IP addresses would be exposed, claimed that the Web server logs may be withheld under FOIA *Exemption 7(E)* because it would expose “information about how the Commission protects the security” of its ECFS site and “other information assets,” and argued that it was impossible “to reasonably segregate the exempt from the non-exempt information” (2018). Unsurprisingly, the *Times* appealed the FCC’s supplemental denial on February 26, 2018.

In its appeal, the *Times* argued that neither FOIA *Exemption 6* nor *Exemption 7(E)* “permitted the withholding in full of the requested records” and that its narrowed request permitted the FCC to produce a few categories of information, “thereby obviating the need for any further redaction or segregation” (*New York Times Co. v. FCC*, 2018). The *Times* sent another letter to the FCC on May 7, 2018 to satisfy the FCC’s concerns about privacy, security, and burdensomeness with the following request to produce across separate logs: “(1) the originating IP addresses and timestamps, so that the agency’s security measures would not be

revealed; (2) User-Agent headers (which reveal information such as what [I]nternet browser the individual was using) and timestamps; and (3) the comments, names, and timestamps submitted” (2018). After an unsuccessful third attempt, a fourth attempt was exercised by the *Times* on August 31, 2018 to further narrow its request.

In its fourth letter to the FCC, the *Times* sought: “(1) originating IP addresses and timestamps, and (2) User-Agent headers and timestamps” (*New York Times Co. v. FCC*, 2018). The *Times* rationalized that the FCC’s privacy concern would be satisfied since “the originating IP addresses would not be linked to any specific comment;” its security concern would be satisfied since “none of the security measures implemented by the agency would be revealed by producing only the originating IP address and User-Agent header, without any forwarding data;” and the burdensomeness concern would be satisfied since “releasing the few data points requested would require the production of only a limited number of logs” (2018). At the end of the fourth formal request, the *Times* felt it had exhausted all administrative remedies. The *Times* was displeased with the FCC’s repeated denials and the time it took the FCC to respond (or not respond) to formal written requests and informal requests over email and telephone.

The U.S. District Court for the Southern District of New York ruled that “every commenter was provided with a privacy notice, stating that ‘[a]ll information submitted, including names and addresses, will be publicly available via the [W]eb’” (*New York Times Co. v. FCC*, 2020). Therefore, there was no substantial risk to privacy violations from the requested records since “commenters arguably consented to the release of their IP addresses and other device-specific information” (2020). In its defence, the FCC argued that IP addresses and other device-specific information could be used to “piece together other information and associate it with a particular person;” however, Judge Lorna Schofield found that the FCC’s general

statements about IP addresses and other digital identifiers being “reliably linked to individual persons’ to create ‘detailed profiles’” fell short (2020). Judge Schofield also weighed the value of “disclosing the originating IP addresses and User-Agent headers” to the public since they may have helped to “clarify whether and to what extent fraudulent activity interfered with the comment process for the FCC’s rulemaking No. 17-108, and more generally, the extent to which administrative rulemaking may be vulnerable to corruption. This serves a vital public interest because of the importance of public comments in agency rulemaking” (2020).

The FCC also contended that the API proxy server log was not a database, but “a long and unwieldy list of various data’ that it should not have to search” (*New York Times Co. v. FCC*, 2020). However, FOIA does “require the disclosure of .CSV [comma-separated value organized into database rows and columns] files” (2020). As well, the term *database* “has no independent legal significance under FOIA’ ... [but means] ‘a system that stores and contains records subject to FOIA’” (2020). The FCC also objected to producing the relevant materials from the API proxy server log because it would require generating a script, which would require “research” instead of a “search” (2020). Judge Schofield said that the FCC’s objection failed as a matter of law because the “matching and sorting process’ that pulls only the relevant material from the API proxy server log ... is closer to an automated search for responsive records than a scavenger hunt for disparate information” (2020). Lastly, the FCC argued that the script would not “extract information associated with rulemaking No. 17-108, such that the results will be unreliable” (2020). Judge Schofield noted that the plaintiff and defendant both agreed that approximately 99 percent of comments filed were related to rulemaking No. 17-108, and so the “risk of producing inaccurate information” was insufficient (2020). While the *Times*’ motion to receive reasonable attorneys’ fees and other litigation costs was denied, Judge Schofield ruled in

favour of the *Times* to receive its requested records of IP addresses and User-Agent headers from the FCC. This court decision was decided on April 30, 2020, roughly three years after the initial request was made. Another legal complaint to the FCC was made regarding FOIA requests: *Collier v. FCC* (2017).

According to the legal complaint in *Collier v. FCC* (2017), on May 22, 2017, Kevin Collier, a cybersecurity journalist correspondent at BuzzFeed, submitted two FOIA requests to the FCC. The first FOIA request sought records surrounding the alleged DDoS attack against the FCC's ECFS site. FCC Chief Information Officer, David Bray, claimed an outage was caused by malicious cyber-attacks (2017). The second FOIA request from Collier sought records surrounding the FCC's analysis of astroturfed anti-net neutrality comments. The court defined *astroturfing* as "the practice of creating the illusion of 'grassroots' support for policies, providing false impression[s] of broad popular support" (2017). The FCC granted expedited processing for each request on the basis of "urgency to inform the public about an actual or alleged federal government activity" as to consider whether the FCC was "taking appropriate steps to accurately account for public input into its rulemaking" (2017). The FCC provided no response to the requests. By failing to provide or deny documents within 20 working days, the request was constructively denied (2017). On October 16, 2017, Collier submitted a second 'DDoS' FOIA request since the FCC indicated that it did not interpret Collier's initial DDoS request to include documents relating to the alleged breach itself. The FCC again constructively denied this second DDoS request since it provided no response within 20 working days (2017). The case was dismissed with prejudice on January 8, 2019.

The FCC stalled and flatly denied the requests by the *Times* and Collier, launching legal rebuttals to the ghosting of further communications between parties. Access to information to

research the significance of the Oliver segment, the allegations of Russian influence, bots, and stolen identities, and the questions surrounding ECFS procedures, purposes, and impacts was integral for investigative journal outlets to pursue. The two legal cases that stemmed from the ECFS comments debacle, *New York Times Co. v. FCC* (2018) and *Collier v. FCC* (2017), were assessed to narrate the legal investigations that stemmed from the ECFS comments debacle and to provide a preview to Chapter 6's socio-legal theme: law and regulation. Section 6.3.1 will continue with an analysis of one last FOIA legal challenge in the *Prechtel v. FCC* (2018) case.

5.3 – Chapter Summary & Discussion

5.3.1 – How do net neutrality advocates and opponents frame their discursive strategies?

Net neutrality advocates communicated fears of corporate and political collusion and controlling the narrative through content, while net neutrality opponents communicated reassurances of business as usual. Net neutrality opponents brought up their frustrations about the *Chicken-Little* scenarios by net neutrality advocates about how consumer protections would be lost under the 2017 Order. Net neutrality advocates' pessimistic fears and net neutrality opponents' optimistic reassurances were at odds. Another set of analogies were given by net neutrality opponents in the form of police officers and the fictitious film world of *Mad Max*. Net neutrality opponents wished to illustrate the regulatory capriciousness of the Obama Administration by discussing first how the FCC over Obama's rule declared winners and losers like a drunk 1920s cop. In another light, net neutrality opponents promoted the FTC as the premier consumer protection cop in the market economy. Lastly, net neutrality opponents urged consumers to think about the repealing of Title II classification as tribal domination of ISPs over consumers set in the dystopian world of *Mad Max*. The *Mad Max* 'Thunderdome' is a metal cage where brutal combat transpires between two parties until one party dies. Net neutrality opponents

adopt an instrumental approach to technology by “expecting a solution to emerge from the private sector” (Carr, 2016, p. 192). Carr argues that instrumentalism views technology as “detached from any moral or value reading” (p. 34). Net neutrality opponents often cite minimal state government intervention, flexibility and innovativeness of the private sector, and link light-touch regulation to innovation.

Net neutrality opponents made more cultural references when they explained in a video that the online experience would not change after the 2017 Order took effect when posting on social media, shopping, binge-watching media, being a part of fandom circles, and sharing memes. Culturally relevant and popular trends were displayed with posting food and puppy photos, buying fidget spinners and solar eclipse glasses, binge-watching *Game of Thrones*, re-enacting a scene from *Star Wars*, and dancing to the song “Harlem Shake” by Baauer. Even though these cultural references were popular at the time of release for this video on December 13, 2017, most of these references are not popular today.

Net neutrality opponents also posted another video that was more explanatory than culturally relevant and popular. In fact, the video was so unpopular and unwelcomed on YouTube that it was removed by its original poster, Verizon. Analogies did not always align with the talking points the communicator was trying to express. Net neutrality opponents used an analogy about homeownership and mayoral authority over prohibiting actors from entering front walkways to compare the authoritative power the FCC had under Title II regulation. In the analogy, if homeowners prohibited actors like the letter carrier from entering their walkways, the mayor could pass a rule so no one could prohibit actors from doing so, but would require homeowners to give the mayor complete authority over properties. This control would be overzealous. ISPs should not be contented with giving the FCC unbounded authority since the

FCC could control how ISPs conducted their own services, user interactions, and price controls. Net neutrality opponents called for placing net neutrality rules on a different ‘legal footing’ while removing the Title II public utility classification. To advocate for net neutrality is to advocate for the classification of ISPs as Title II *common carriers* offering *telecommunication* services. The ‘legal footing’ statement perhaps referred to the FCC exploring a legal clause that outlined a voluntary promise for ISPs to uphold no blocking, throttling, or paid prioritization in ISPs’ terms of service agreements. As net neutrality advocates pointed out, large ISPs had a monopoly of BIAS (broadband Internet access service) that connected to homes; to depict ISPs as homeowners, edge providers as letter carriers, and the FCC as the mayor was a misalignment. The Internet spanned across the world on routers with the help of IP (Internet Protocol) addresses, TCP’s (Transmission Control Protocol) sending and receiving of data packets, and end users’ devices to reassemble data packets.

In addition to analogies and popular cultural references, other discursive strategies were threats made by fringe actors. While few and far between, some net neutrality advocates believed it was justified to make threatening remarks that put the lives and dignity of regulators and politicians in danger. Net neutrality advocates posted stolen family pictures with lewd captions about the wife and children of a State of California Democratic lawmaker after he removed whole portions of a statewide broadband access bill to appease AT&T and other ISPs with whom he had financial ties with. Moreover, on December 14, 2017, U.S. Department of Homeland Security personnel stormed the Commission Meeting Room during the 2017 Order hearing. Two explosive devices were set to detonate, with one allegedly planted in the room. Federal Protective Service Explosive Detection Canine Teams swept the facility for explosive devices based on an initial telephone call they received. Additionally, Republican FCC Chairman Ajit

Pai and his children's lives were threatened through emails. The sender of the emails accused Chairman Pai of being responsible for two children committing suicide on the account of the 2017 Order. The sender also claimed to know where Chairman Pai's children attended preschool. Another domestic terrorist threatened to kill Republican Congressman John Katko and his family on a recorded telephone message if Congressman Katko did not support net neutrality. The deranged, mentally unhinged, fringe actor said that net neutrality was more important than the defence of the U.S., free speech, and health care; net neutrality was the basis of the new society.

John Oliver from HBO's *Last Week Tonight with John Oliver* encouraged viewers to comment on the repeal of net neutrality protections as a lead-up to and during the FCC's call for the public to submit comments to its ECFS (Electronic Comment Filing System) between April 2017 until August 2017. Oliver told viewers to submit comments to <http://gofccyourself.com> to support net neutrality rules backed by Title II. According to the FCC, this action led to an influx in site traffic, eventually crashing the FCC's servers. The FCC blamed the crash on a DDoS (distributed denial-of-service) attack. Of the 22 million comments submitted at the time, 18 million were allegedly fraudulent and suspected to come from Russian IP and email addresses and bots, and with some commenters who were fabricated and some living and deceased actors who had their identities stolen. Net neutrality advocates criticized the FCC for proceeding with the 2017 Order hearing with state and federal identity theft laws being ignored and for withholding its server logs from being reviewed.

Oliver's comedic style is to shed light on the absurdity of actors' behaviours and to align the story with popular cultural references. One example explored was when Republican FCC Chairman Ajit Pai claimed that there were no negative effects of ISP harms, even though T-Mobile blocked Google Wallet in favour of its own 'ISIS Mobile Wallet.' Oliver also displayed

Donald Trump's 2014 Twitter post that read, "Obama's attack on the [I]nternet is another top[-]down power grab. Net neutrality is the Fairness Doctrine. Will target conservative media" (LastWeekTonight, 2017a). This analogy was inaccurate for what net neutrality principles aimed to do. The FCC's Fairness Doctrine from 1949 was removed in 1987. The doctrine assured that broadcasters presented content with a fair hearing to all sides of an issue. A left-leaning newscaster had to present the newsworthy topic in a fair and unbiased manner. The doctrine was an attempt to ensure that news was presented in a balanced, non-partisan way. So, how could net neutrality opponents label net neutrality as the Fairness Doctrine if they were also worried that net neutrality rules would target conservative media? Why would net neutrality opponents raise the concern that net neutrality targeted conservative media if net neutrality rules promised to deter ISPs from blocking, throttling, and prioritizing conservative content-based data packets? Net neutrality would work in favour of all data packets, including those that were advocating all points of view. Thus, data packets had a political agenda. The debate was about how law should set up the rules of the game or political debate.

Chapter 5 returned to the digital divide first explored in Chapter 3. Arguments about access and citizenship pertained to the digital divide since the digital divide began and ended with the sustaining of or repealing of net neutrality principles. According to net neutrality advocates, the digital divide could be conceptualized as a lack of choice and limited-to-no access to digital tools, platforms, devices, services, and applications. Net neutrality opponents agreed to an extent that closing the digital divide in poor rural areas was more pertinent than discussing Title I and II classifications. Social inequality did exist when it came to accessing and utilizing digital spaces and technologies. The power of scarcity and choice in ISPs could keep prices high and made it easier for competitors to set industry standards, especially with lax regulations. Net

neutrality advocates wanted more choice in ISPs to drive prices down and keep standards at a high quality through comprehensive regulations. By contrast, net neutrality opponents believed that the loosening of industry regulations would allow ISPs to operate more freely. Lower monthly prices and higher quality of goods and services would come from ISPs operating their practices the way they saw fit without federal and state government oversight.

Net neutrality advocates were also concerned about the impact from ISPs' decisions not to deploy broadband technologies in low-income communities. Media firms could invest in a culturally-diverse array of content and on actors of colour who told their stories, advocated for their communities, and detested injustice. Net neutrality advocates focus on the innovation commons, a conceptual space defined by protocols that govern data being sent and received across the network. Preserving open access to creatively participate in content and application development and consumption is an essential pillar of the innovation commons (Wu, 2004, p. 79; Krämer & Wiewiorra, 2009, p. 2). Both ISPs and individual actors have speech rights, but culturally-controlling content through ISPs' curated walled gardens keeps low-income users from participating. Walled gardens exploit consumers to guided and predetermined spaces constructed by ISPs and their affiliates, essentially closing free travel across the open Web. Continuing to use something is not indicative of consent to control access to Web content and services by excluding ISP-unaffiliated providers.

5.3.2 – In what ways do formal law frameworks (empirical and normative – ‘according to law as it is and ought to be’) govern data packets and the Web?

Democratic FCC Commissioner Rosenworcel said that net neutrality's history should be defined by outcomes in the courts and Congress to ensure net neutrality stays the law. For example, the State of California began the process to pass a bill that would prevent ISPs from

imposing restrictions on first responders during an emergency. In one sense, law can be a self-sustaining closed circuit that (re)produces its own theories and system and applications of knowledge (see Black, 2001, p. 107). Net neutrality opponents argued that the bill, which wrote that providers may not impair or degrade Internet traffic was speculative, and the amount of actors who could declare a state of emergency was questioned. Court orders sometimes resist “foreign judgments” due to the distances between jurisdictions and their misaligned laws or lack of laws (Geist, 2001, p. 1354).

Republican FCC Commissioner Carr said that Title II divested the FTC consumer protection authority over ISPs, including its ability to police ISPs that engaged in unfair or deceptive practices, whereas Title I would provide powerful legal checks via state consumer protection laws and state attorneys general. Net neutrality opponents indeed prefer FTC-led antitrust and consumer protection laws to access justice. When implementing the 2017 Order, the FCC abided by the Administrative Procedure Act (APA), which was a law that set up the framework for rulemaking. When the FCC proposed new policies, the public could voice their opinions, for which the FCC may adopt final rules along with a general statement of basis and purpose. The Regulatory Flexibility Act amended the APA to ensure agencies consider the impact of proposed rules on small businesses. The FCC thus followed the rule of law in administering legislation on behalf of Congress and the executive branch (see Lowi, 1979, p. 96, pp. 273–274, & p. 303).

Elsewhere, net neutrality advocates exclaimed that whoever submitted fraudulent comments to the FCC’s ECFS (Electronic Comment Filing System) site stole names and addresses, publicly exposed private information without permission, and used identities to file a political statement actors did not sign onto. Multiple comments were being constantly and

consistently duplicated, and some comments were coming from hacked and defunct accounts, with some stemming from Russian IP (Internet Protocol) addresses to allegedly influence the development of rules to carry out laws. Democratic New York Attorney General Eric Schneiderman began a criminal investigation, with accusations made against the FCC about refusing to help. The FCC could have redacted private information from server logs before producing them. The Government Accountability Office (GAO) reviewed the extent and pervasiveness of fraud and the misuse of American identities. Two million actors' identities, including dead actors' identities, were stolen in the FCC's record, which was a federal crime under Title 18 and in many states. The FCC should have been referring these matters to state attorneys general and the Department of Justice. State and federal law enforcement officials should have used subpoenas, discovery requests, and grand juries to narrow down the culprits. As well, the FCC's ECFS site should display a note informing filers that submission constitutes the filer's certification under penalty of perjury that the filer is authorized to submit the material on behalf of the named commenter.

5.3.3 – In what ways do formal regulation frameworks (empirical and normative – ‘according to regulation as it is and ought to be’) govern data packets and the Web?

The Democratic Party invoked the Congressional Review Act (CRA) as a fast-track legislative vehicle that allowed Congress to authorize a resolution of disapproval of agency regulatory actions. The act promised to overturn the 2017 Order rules, which passed the Senate but failed at the House of Representatives. Many net neutrality advocates and opponents were opposed to the use of the CRA as a tool to levy the repeal of FCC-guided rules. The CRA was looked at as a disapproval resolution that would leave the issue in the hands of the FCC who could erase Internet protections. Net neutrality opponents argued that FCC regulations should not

bounce from administration to administration based on political wins. Companies could spend millions of dollars on lawsuits rather than ploughing it into infrastructure, investment, and innovative technologies under a free market approach. Title II gave the FCC the authority to set prices and conditions of service, to prevent broadband carriers from discontinuing service, and to require utility-style tariffs. It was believed that regulation dissuaded ISPs from investing in infrastructure and network goods and services (Jordan, 2007, p. 429). In Law 2.0, regulatory-instrumentalists, which appear to be mostly net neutrality opponents, ask whether rules align with emerging technologies. Over-regulation may stifle the design and application of technologies and under-regulation may pose risks to actors and institutions, such as financial harm (Brownsword, 2020, p. 21). Risk management is geared to ex-ante prevention (p. 33). Therefore, Congress should establish clear guidelines ensuring that the Internet remains open, that anticompetitive practices are forbidden, and that the stifling of innovation is prevented.

Net neutrality advocates feared that ISPs were building regimes to become arbiters of acceptable online business models by setting arbitrary tolls and that the FCC's regulatory substance would fade. ISPs should serve as conduits, not controllers, for how users access and navigate Web content and applications. The FTC had zero technical experience with the BIAS industry and required proof of unfair or deceptive practices and substantial user injury, which could take years to receive legal justice. Antitrust suits should not be able to run their course. The FCC should remain the regulatory body that enacts legislation under the rule of law (Weiser, 2008, p. 318). The FCC should remain the regulatory body that attempts to alter behaviour backed by standards (Black, 2005, p. 1; p.11) and mitigate harm geared towards social activity (Yeung, 2015, p. 5). State regulators must maintain health and safety, foster community-acceptable purposes and strategies, promote effective interventions to impact regulatees'

conduct, and design regulation to keep pace with technological innovation (Brownsword, 2012, p. 254).

Regarding the fraudulent ECFS (Electronic Comment Filing System)-submitted comments debacle, it was concluded that batches of identical comments were submitted in bulk to the FCC's ECFS site under duplicate false names, email addresses, and resident addresses on particular days at particular times. The FCC's ECFS process was supposed to utilize an email verification feature to reduce the amount of illegitimate comments submitted. In Brownsword's (2019, p. 58) Law 2.0, target identifying technologies embed normative judgements to detect non-compliance, in this case identity fraud. Net neutrality advocates called on the FCC to notify everyone who was impacted, remove the fraudulent comments, release any information it may have on who filed them and call for an investigation into their possible illegality, citing laws against making false statements. The adverse effects of fraudulent pro and anti-net neutrality comments began seeping into other dockets. What was the purpose of generating public comments and to what extent was the comment process impactful to the FCC rendering decisions? Did the outrage from experts matter about alleged Russian influence, bots, and stolen identities corrupting the FCC's ECFS public docket? What investigations were underway to fix the ECFS in future NPRM (notice-of-proposed-rulemaking) calls and deter fraudulent comments from being filed?

The FCC responded to these questions by saying that its ECFS website does not have a counting procedure where it tallies which side placed more comments in the record. Submitted comments that would be impactful in shaping FCC decision-making were factual arguments and data that had sound legal backing. Comments that would get the most traction from the FCC would introduce empirical data or analysis of that data into the record, raise methodological

concerns about data analyses, and introduce legal theories. Comments that suggested the FCC perform a cost-benefit analysis of Title I reclassification effects were also important.

Further questions included: were FCC staff given guidelines and internal legal analysis to follow? What analysis did the FCC conduct to consider which comments were devoid of substance or were non-substantive, and what guidelines were given to staff who made these considerations? Why did the FCC not cooperate with the criminal investigation, and what internal communications and legal analysis were used to support this decision? How many FCC staff hours were devoted to review the record, were staff assigned to work on the docket full-time, and did staff work overtime to complete the review of the record by a set date? How much of the FCC's budget was spent to compensate staff and to pay for overtime to review the docket?

Republican FCC Chairman Ajit Pai replied to these questions by saying that the FCC could have proceeded with a declaratory ruling in that what the previous FCC did was null and void as a matter of law and proceed with its Order. The notice and comment process prescribed by the Administrative Procedure Act (APA) was chosen instead. The FCC was guided by empirical facts, proscriptions, and outcomes. The FCC was guided by the principles of substantial evidence by the D.C. Circuit, by the facts that were in the record, and to figure out public interest. The U.S. Court of Appeals for the D.C. Circuit reaffirmed that the FCC abided by the APA, including by having substantial evidence for its decision. There was no legal obligation to adopt an identity-verification procedure, and fraudulent comments were kept to avoid hindering full and robust public participation in policymaking. Identical or nearly-identical non-substantive comments did not impede the FCC's ability to identify or respond to issues. The FCC would work with the Office of Managing Director to review all information technology projects to determine the success/fail ratio. Upgrades and maintenance improvements had been made, and

the FCC would attempt to pinpoint the cause of past deficiencies and develop leadership tools to avoid system breakdowns.

5.3.4 – In what ways do non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web?

Net neutrality advocates’ fears of corporate and political collusion and controlling the narrative through content versus net neutrality opponents’ reassurances of business as usual appeared throughout the data. Both sides agreed that without bipartisan federal legislation, net neutrality rules would continue to be adopted and repealed depending on the political party in charge. Bipartisan federal legislation would provide an upholding of rights, a limiting of arbitrariness of rights, and an accountability of the federal government and its agencies and individual state governments (Bayamlioğlu & Leenes, 2018, p. 304; see also Waldron, 1989). Net neutrality rules backed by legislation ought to be broadcasted consistently across the nation and future-oriented to adapt to new technologies that require an accommodation to meet their capabilities (Fuller, 1969). Brownsword’s (2012 & 2020) Law 1.0 is a vertical regulatory intervention with regulators and regulatees who promote and abide by legal doctrine. Widely publicized legal categories and concepts can be made to fit the governing of data packets and the Web.

Net neutrality opponent Republican Party members argued that Congress must legislate clear, consistent, and platform-agnostic rules governing the treatment of consumers’ data and to ensure fair competition, permissionless innovation, and low capital entry barriers. This instrumental approach to technology welcomes the private sector to do what it does best: to stimulate the nation’s economy through invention and innovation (Carr, 2016).

Net neutrality opponents also argued that the State of California's 2018 legislation was a piecemeal approach that would enrich California's lobbyists and lawyers while leading to uncertainty, higher prices, and fewer jobs created. Moreover, the Democratic Party's Save the Internet Act of 2019 was a failed attempt to restore net neutrality principles and the FCC's regulatory authority to govern broadband networks. Republican President Donald Trump vetoed the bill when it arrived in the Senate after Republican Party members complained the bill granted unelected bureaucrats to have nearly limitless control. The state financially dominates and grants licensed participation via the FCC and Congress to those who wish to contribute to the Internet market economy (Lowi, 1979, p. 278). In turn, the FCC and Congress bargain with interest groups to grant access to sectors in the Internet market economy (p. 278).

Net neutrality opponents believed that engineers, entrepreneurs, and consumers should drive the Internet, not lawyers, accountants, and bureaucrats. During the heroic attempt to contain the Mendocino Complex wildfire, Verizon continuously throttled the data speed to 1/200th of Santa Clara Fire Department's normal speed since it exceeded its allotted monthly limit, even though they had unlimited data. This affected the fire department's vehicle to function effectively. Verizon was criticized for risking harm to public safety during emergencies and catastrophes. The private Internet governance regime prioritizes interconnection and interoperability through coordination of technology (ten Oever, 2021, p. 56). This regime usually does not have civil society concerns in mind. If concerns are raised, they are done so to promote a positive image while ensuring economic potency. Instead of lifting the data throttling measures, Verizon told the fire department to upgrade to a twice as expensive data plan. Verizon's actions were technically not net neutrality violations, but the fire department had no recourse to file a complaint with the FCC for unjust or unreasonable prices and practices under

the 2017 Order. Norms that regulate behaviour that are built into technology are used to enforce laws (Koops, 2008, p. 159).

Net neutrality opponents, including Verizon, rationalized that all customers contractually agree to experiencing reduced data speeds when exceeding their allotted data until the next billing cycle under ISP contracted rules. Shaping data traffic can result in higher quality of service to avoid network congestion. Moreover, some bandwidth should be allocated to ISP-proprietary use (Chong, 2007, pp. 153–154). Data throttling could have been avoided if the fire department invoked the policy regarding suspension of the speed restriction or switched to a data plan without a speed restriction (e.g., a pay-as-you-go plan). Net neutrality opponents focus on the means of transmitting data on a pay-per-use basis (Wu, 2004, p. 79). Whether Verizon accurately communicated how these options worked is a question of consumer protection law addressed by the FTC. Net neutrality advocates argued that ISPs could evade FTC recourse by adding new provisions to the fine print in their terms of service agreements with intentions to block, throttle, and prioritize data packets. It is possible to transition to what Hildebrandt and Koops (2010) call ‘ambient law’ since law always finds a way to map itself onto new technologies. Law can be embedded in code instead of as code.

In the end, Verizon cited a communication user service error on its part and that, contractually, full-service should have been immediately restored since fire department authorities were responding to an emergency. Verizon took responsibility for the oversight by apologizing, putting fixes in place, and sending executives to the California legislature to testify at a public hearing. Verizon rolled out a new plan for first responders that have no speed restrictions at no additional charge. Binary instructions and policies force compliance upon regulatees, giving no sense of choice to morally and/or ethically act on their own (Brownsword,

2012, p. 261). The forced compliance on first responders' data usage was only lifted when the gatekeepers of providing Internet service decided to accept responsibility and rectify their own policies. Tien (2004) and Brownsword (2005) claim that techno-regulation will only work when the rule is definite, indisputable, undeniable, and does not require discretion. The Mendocino Complex wildfire story's conclusion clearly said otherwise.

The story signified the failure and success of Brownsword's (2012, 2016, 2019, 2020) Law 3.0. The rigidity of Law 3.0 to promulgate precisely what is possible and impossible under tech management contributed to Verizon's ability to act to rectify the communication user service error it claimed. By the same token, Verizon as gatekeeper of the ability to be held accountable and rewrite its terms of service agreements was a success in that it was able to rectify the issue, albeit after the fact. Transparency is needed between regulatees and regulators for setting terms and conditions for uses and measures of technological management (Brownsword, 2016, pp. 138–139). There is moral agency to choose to defy a rule, but the choice to change the rule lies in the corporation that wrote the rule in the first place.

5.3.5 – How does Internet governance reflect U.S. norms, values, and rights in ways that support the expansion of U.S. economic power?

Net neutrality advocates were concerned about Republican FCC Chairman Ajit Pai's influential ties to Sinclair Broadcast Group. The concern surrounded political figures failing to protect public interest through biased conservative media production since Sinclair is the largest television station owner in the U.S. Sinclair's Chairman met with Pai to discuss a rewriting of corporate merger rules for Sinclair to easily acquire Tribune to then have access to over 70 percent of U.S. households. Thus, there would be less diversity in information in local reporting, which is bad for competition and democracy. While not an ISP, parallels can be drawn between

ISPs and Sinclair to how walled gardens were being built to enclose the innovation commons. Net neutrality advocates argue that preserving open access to participate in content and application development and consumption is important for maintaining fair market competition and free will to access websites (Wu, 2004, p. 79 & p. 74; Krämer & Wiewiorra, 2009, p. 2). An open Web maximizes social participation and welfare (Jordan, 2007, p. 429), which is framed under U.S. norms, values, and rights of “equity, freedom of access[,] and a non-hierarchical structure” (Carr, 2016, p. 159).

On the other hand, net neutrality opponents discussed how edge providers should be chastised for annotating search results based on paid prioritization, which violated the principles of an open Internet. Edge providers are never neutral since author biases are entrenched in written or visual content or code language (see van Dijck et al., 2018). Moreover, the FCC should not be the governing body who picks winners and losers in the Internet market economy. Wu (2004, p. 71) argues that both net neutrality advocates and opponents want a regulatory framework that allows for fair “open market entry” and that rights for users and operators should be free from regulatory “hindrance.” Where net neutrality opponents differ is their stance on regulatory intervention. Less regulation of ISPs means greater risk taking and financial investment decisions (Jordan, 2007, p. 429). Net neutrality opponents here have clearly called for minimal state government intervention, flexibility and innovativeness of the private sector, and link light-touch regulation to innovation.

Chapter 6 – Thematic Findings Part IV: Law & Regulation

6.1 – Chapter Overview

In Chapter 3's economics theme, I analyzed the following four socio-legal narratives generated in NVivo: the defence of the Internet in the market economy, infrastructure investments, paid prioritization, and antitrust and consumer protection laws. In Chapter 4, I analyzed the following three socio-legal narratives generated in NVivo in the technology theme: state jurisdiction and interconnectivity, data packets and walled gardens, and 5G and paid prioritization. And in Chapter 5, I analyzed the following five socio-legal narratives generated in NVivo in the politics theme: the Verizon-Mendocino Complex Fire tragedy; political bantering between U.S. Democratic and Republican Party members and social justice talking points; the 2017 Order Hearing and CALinnovates' influence on shaping the order; a string of occurrences that came from the repealing of net neutrality; and the FCC's Electronic Comment Filing System (ECFS) fraudulent comments debacle. The fourth and final socio-legal theme, law, will host debates about four socio-legal narratives generated in NVivo: FOIA (Freedom of Information Act) legal challenges; Title I and II classifications; the FTC as a regulatory authority; and interstate versus intrastate jurisdiction. In Chapter 6, the law and regulation theme investigates a third FOIA legal challenge, *Collier v. FCC* (2017), to question the inner-workings of the FCC's ECFS. Common carriage versus public utility and Title I and II classifications discussions help discern how and to what extent federal commissions can or cannot apply authority. Assessing the significance of antitrust law (and its seeming irrelevance to today's corporate mergers and monopolies) and questioning the effectiveness of the FTC's regulatory framework exposes the weaknesses of legal and regulatory authority over ISPs, data packets, and the Web. In the end,

definitional and classificatory debates about interstate versus intrastate jurisdictional laws and regulations points to the *legal* and *regulatory limbo* net neutrality is still in.

In Chapter 6, I will assess narratives of FOIA legal challenges, Title I and II classifications, the FTC as a regulatory authority, and interstate versus intrastate jurisdiction. The majority of Democrats hold the position of net neutrality advocates and the majority of Republicans hold the position of net neutrality opponents, thereby laying groundwork for yet another partisan divide in U.S. politics. Inflamed rhetoric on both sides of the net neutrality debates was heightened during the reign of Republican President Donald Trump. The political climate could be characterized as a partisan divide where the Trump administration sought to reverse many Democratic President Barack Obama-era rules. The politically partisan backgrounds of net neutrality advocate and opponent actors and institutions/organizations have been and will continue to be identified throughout. Net neutrality advocates and opponents' arguments are organized by issue in Appendix H's *Chapter 6 Summary Table*. Net neutrality advocates and opponents' arguments are juxtaposed side-by-side in the table. The phrase "*No direct response*" in the table is indicated for net neutrality advocates or opponents who did not have a direct response to an issue raised by the other side.

6.2 – Law & Regulation: FOIA, Classifications, Authority, & Jurisdiction

Section 6.2.1 exemplifies a third FOIA (Freedom of Information Act) legal challenge as an entry point to link the politics theme with the law and regulation theme. The two legal cases reviewed in Chapter 5's section 5.2.5.4, *New York Times Co. v. FCC* (2018) and *Collier v. FCC* (2017), are similar to the legal case, *Prechtel v. FCC* (2018), in section 6.2.1. In all three FOIA cases, the plaintiffs seek public knowledge of fraudulent activity in the Electronic Comment Filing System (ECFS) site and agency vulnerability to corruption. And all presiding judges agree

that it is significant for the plaintiffs to seek public knowledge to understand the ECFS comments debacle matter. In *Prechtel v. FCC* (2018), Jason Prechtel challenges the FCC's withholding of records of information. The court found that it was appropriate for the FCC to withhold certain privileged emails and its server logs, and that it was appropriate for Prechtel to seek the email addresses used to submit .CSV (comma-separated values organized into database rows and columns) files. I question whether the FCC's ECFS was an effective space to challenge rules beyond Title II.

Section 6.2.2 details how regulatory classifications of ISPs hinge on Title I classification (i.e., classifying ISPs as *information service providers* providing *information* services) and Title II classification (i.e., classifying ISPs as *common carriers* providing *telecommunication* services) of the Communications Act of 1934. Title I and II guide the extent of federal commissions' jurisdictional authority. Regulatory definitions and classifications in past legal cases set precedents for how ISPs can deliver data packets across networks. Net neutrality advocates argue that the FCC's jurisdiction is based on common carriage (a regulatory classification), not public utility (defined in legal statutes), classifications as well. Net neutrality opponents tend to conflate public utilities and common carriage with monopolies and say that there is no need for regulation if monopolies are destroyed. Beyond this misperception, net neutrality advocates and opponents argue over whether Title I and Title II are mutually exclusive classifications based on past legal decisions, how ISPs simultaneously provide both services (i.e., utilizing the transmission and information-processing components together), and how ISPs vertically integrate content and Internet access. Also, questions about why telephony and BIAS are not governed under the same Title II classification will be raised.

Section 6.2.3 begins with a question: why did the FCC rescind its regulatory authority under the direction of the 2017 Order? I will review the significance of how antitrust law was formulated in 1890 and revisit the idea of the FTC regulating ISP trade practices instead of the FCC. I will assess net neutrality advocates and opponents' arguments about to what extent trusts (i.e., a connected group of corporate enterprises that consolidate market power) should be regulated. Net neutrality advocates believe that information and ideas should be valued to increase competition and corporate legal tools create barriers for new entrants. Net neutrality opponents believe that monopolies foster competition that in turn decrease prices and give users options through price discrimination. Next, the benefits of antitrust and consumer protections laws, as governed by the FTC's regulatory framework, are debated. The FTC's lawsuit and AT&T's appeal to the U.S. Supreme Court serves as a brief case study as to how the FTC's regulatory defence of net neutrality principles (i.e., no throttling of data) fails to uphold net neutrality principles. Net neutrality advocates also argue that ISPs' terms of service agreement disclosures were promises to uphold net neutrality principles that could be easily broken.

Section 6.2.4 considers net neutrality advocate and opponent arguments for and against the governing of data packets via interstate and intrastate jurisdictions. I will discuss the narratives based on the debates over jurisdiction by exploring the *impossibility exception*, the federal policy of nonregulation of *information* services, and the 47 U.S.C. § 160(e)'s forbearance provision in the context of the 2017 Order and the *Mozilla Corp. v. FCC* (2019) case. Next, I will return to the State of California's proposition to enact its own statewide broadband access bill and discuss how municipalities are considering city and region-wide BIAS (broadband Internet access service) to uphold net neutrality principles. Legal discretion over jurisdictional authority will be the primary focus of sections 6.2.4.1 and 6.2.4.2.

6.2.1 – FOIA Legal Challenges (Continued)

Section 6.2.1 exemplifies a third FOIA (Freedom of Information Act) legal challenge as an entry point to link the politics theme with the law and regulation theme. The two legal cases reviewed in Chapter 5's section 5.2.5.4, *New York Times Co. v. FCC* (2018) and *Collier v. FCC* (2017), are similar to the legal case, *Prechtel v. FCC* (2018), in section 6.2.1. In all three FOIA cases, the plaintiffs seek public knowledge of fraudulent activity in the Electronic Comment Filing System (ECFS) site and agency vulnerability to corruption. And all presiding judges agree that it is significant for the plaintiffs to seek public knowledge to understand the ECFS comments debacle matter. In *Prechtel v. FCC* (2018), Jason Prechtel challenges the FCC's withholding of records of information. The court found that it was appropriate for the FCC to withhold certain privileged emails and its server logs, and that it was appropriate for Prechtel to seek the email addresses used to submit .CSV (comma-separated values organized into database rows and columns) files. I question whether the FCC's ECFS was an effective space to challenge rules beyond Title II.

During the span of the FCC's ECFS comments debacle, there were conflicting reports over whether a DDoS (distributed denial-of-service) cyberattack occurred on May 7–8, 2017. Did automated bots use an API (Application Programming Interface) to repeatedly post fraudulent comments in bulk on particular days at particular times and crash the FCC server, thereby preventing real human users from submitting comments? Almost one month after the FCC-alleged cyberattack and John Oliver's call to action on his show (*LastWeekTonight*, 2017a), Jason Prechtel requested five key pieces of information from the General Services Administration (GSA) and FCC. Prechtel, a freelance journalist, sought from the GSA: "(1) all public API keys used to submit online comments relating to the ... [2017 Order], including the

associated registration names and email addresses, and copies of all data files submitted through those API keys; and (2) logs of all dates and times that those API keys were used to submit comments” (*Prechtel v. FCC*, 2018). Prechtel also sought the same information from the FCC in addition to: “(1) the email addresses associated with .CSV comment uploads, along with all .CSV files uploaded in response to [the] Proceeding; (2) logs of all dates and times the email addresses submitted comments; and (3) all email inquiries to ECFSHelp@fcc.gov regarding .CSV comment submissions to the Proceeding” (2018).

U.S. District Judge Christopher Cooper recognized that the .CSV files and an API were tools that the FCC used to facilitate public participation. According to Judge Cooper, a .CSV file is “a template [i.e., a spreadsheet] provided by the FCC ... that allows an individual or organization to solicit and compile multiple comments and upload them into the ECFS in one fell swoop” (*Prechtel v. FCC*, 2018). Moreover, according to Judge Cooper, an API “allows website developers to place comment-submission tools on third-party websites, meaning that visitors to those websites can submit comments to ECFS directly from those websites” (2018). Prechtel challenged the FCC’s supposed search for the records he requested, its appeal of “statutory exemptions to withhold or redact those records,” and the GSA’s constructive denial of his request (2018). On June 5, 2017, the GSA informed Prechtel that the FCC was the “API owner” and directed him to request the API files from the FCC (2018). After receiving no substantive response from the FCC, Prechtel filed a lawsuit on September 7, 2017. 22 days later, the FCC released 15 pages of communications to the ECFSHelp@fcc.gov helpdesk email address, but redacted several emails and withheld all other records sought by Prechtel, including the API files for which the FCC indicated that the GSA maintained these records (2018).

The FCC withheld all or parts of the email exchanges between staff regarding how to respond to any inquiry to ECFSHelp@fcc.gov, .CSV files to submit bulk comments and the email addresses of its submitters, and server logs that reported dates and times that .CSV files were submitted (*Prechtel v. FCC*, 2018). Regarding the email threads, the FCC released 15 pages of “responsive documents and invoked the deliberative process privilege under *FOIA Exemption 5* to redact certain email threads,” which allowed agencies to withhold information “that would not be available by law to a party other than an agency in litigation with the agency” (2018). Prechtel argued that even if some of the communication was privileged, “any records reflecting the agency’s final decision, the accompanying explanation, and any factual information are not exempt” (2018). However, the court ruled that Prechtel’s argument cast “aspersions” on the FCC’s declaration that there was “some non-exempt information” that it was hiding (2018). The FCC’s declaration, “so long as they are relatively detailed and non-conclusionary,” are rooted in good faith, “which cannot be rebutted by purely speculative claims” (2018).

Regarding the .CSV files and associated email addresses, the FCC invoked *FOIA Exemption 6*, which protected personal information from disclosure since releasing the information would constitute an invasion of personal privacy (USDOJ – OIP, 2004). The FCC withheld the email addresses and told Prechtel that the information in the .CSV files, minus the submitter email addresses, were already made public on the FCC’s website (*Prechtel v. FCC*, 2018). Prechtel argued that the .CSV files had independent value since they reflected “which comments were submitted together and, assuming disclosure of the bulk file submitters’ email addresses, by whom” (2018). Bulk submitters knew their email addresses could be made public, which mitigated privacy (*Prechtel v. FCC*, 2018). The FCC’s defence was that since bulk submitters merely transmitted files and did not comment on the NPRM (notice-of-proposed-

rulemaking), they were “more akin to ‘any other private individual’ than to public commentators and therefore have a ‘substantial’ privacy interest in their email addresses” (2018). But the court recognized that the bulk submitters “sought to influence agency decision-making by submitting scores of public comments into the administrative record[,] ... [which] makes them more akin to individual commenters who provide their email addresses” (2018). Thus, the public interest in disclosure of bulk submitters’ email addresses eclipsed privacy interests. Prechtel was able to scrutinize the “endemic fraud” that “corrupted” the FCC’s ECFS site by shedding light “on the suitability of the Commission’s efforts to prevent future public-commenting fraud and abuse” (2018). As for the .CSV files, the court reasoned that the email addresses could reveal information about the commenters’ identities, “which in turn might suggest to whom the government is responsive: [t]echnology experts or laypeople? Consumers or industry? ... [ISPs] or social media companies” (2018)? Thus, the .CSV files should reveal “which public comments were submitted together and ... by whom” (2018). The court directed the parties to meet and confer regarding the release of the .CSV files.

Regarding the FCC’s server logs, Prechtel sought the FCC electronic server logs that detailed when .CSV files were submitted in order to potentially find “signs of nefarious activity” (*Prechtel v. FCC*, 2018). The FCC withheld the logs and claimed that some of the information was protected under *FOIA Exemptions 6 and 7(E)* and not reasonably segregable from the other information. *FOIA Exemption 7(E)* allowed an agency to withhold information that ““would disclose techniques and procedures for law enforcement investigations or prosecutions ... if such disclosure could reasonably be expected to risk circumvention of the law”” (2018). Here, the FCC’s staff feared that the logs would expose security measures and “steps taken to fend off past cyber-attacks,” and would reveal its “IT architecture” (2018). The court found that the FCC

properly invoked *FOIA Exemption 7(E)* and that the information was not reasonably segregable from other information and therefore did not need to invoke *FOIA Exemption 6*. The FOIA did not require the FCC to “craft complicated algorithms to meet Prechtel’s request” (2018).

In sum, concerning Prechtel’s challenge to the FCC’s withholding of records of information, the court granted the FCC’s “motion for summary judgment on its withholding of certain privileged email [i.e., either through complete withholdings or redactions] and its server logs; grant[ed] Prechtel’s motion for summary judgment on the email addresses used to submit .CSV files; and direct[ed] the parties to confer regarding the .CSV files themselves” (*Prechtel v. FCC*, 2018). As for the GSA, Prechtel “did not serve the GSA until after briefing had commenced,” and so even though the GSA joined the FCC’s motion for summary judgement, it did not provide an “affidavit or declaration explaining its response to Prechtel or ... [its] tension with the FCC’s response regarding API keys and attendant information” (2018). The court expected the GSA to “provide a declaration detailing how it handled Prechtel’s FOIA request,” so denied all motions on matters outside Judge Cooper’s opinion (2018). Birnbaum (2019) reported that, on March 20, 2019, the FCC agreed to pay Prechtel’s attorney fees of \$43,077.80 to settle its lawsuit. Prechtel’s lawyer, Joshua Burday, said that this result “was a good reminder that you don’t need to be able to afford a lawyer to exercise your FOIA rights” (2019).

In all three FOIA cases, *New York Times Co. v. FCC* (2018), *Collier v. FCC* (2017), and *Prechtel v. FCC* (2018), the plaintiffs sought public knowledge of fraudulent activity and of agency vulnerability to corruption. And all presiding judges in the three cases agreed that it was significant for the plaintiffs to seek public knowledge to enlighten the ECFS comments debacle matter further to get at the truth. Regulatory classifications hinged on Title I and II of the Communications Act of 1934, which defines the jurisdictional authority of federal commissions.

But states and municipalities generate conflicting rules on how data packets and the Web should be governed. One of the cases was dismissed with prejudice, but the court rulings in the other two cases found that it was a reasonable pursuit of journalists to request records of IP addresses and User-Agent headers and some email addresses used to submit .CSV files. In both cases, the FCC was able to withhold certain privileged email and server logs. And out of both cases, one of the plaintiff's attorneys' fees were paid for.

6.2.2 – Making Sense of Title I & II Classifications

Section 6.2.2 details how regulatory classifications of ISPs hinge on Title I classification (i.e., classifying ISPs as *information service providers* providing *information* services) and Title II classification (i.e., classifying ISPs as *common carriers* providing *telecommunication* services) of the Communications Act of 1934. Title I and II guide the extent of federal commissions' jurisdictional authority. Regulatory definitions and classifications in past legal cases set precedents for how ISPs can deliver data packets across networks. Net neutrality advocates argue that the FCC's jurisdiction is based on common carriage (a regulatory classification), not public utility (defined in legal statutes), classifications as well. Net neutrality opponents tend to conflate public utilities and common carriage with monopolies and say that there is no need for regulation if monopolies are destroyed. Beyond this misperception, net neutrality advocates and opponents argue over whether Title I and Title II are mutually exclusive classifications based on past legal decisions, how ISPs simultaneously provide both services (i.e., utilizing the transmission and information-processing components together), and how ISPs vertically integrate content and Internet access. Also, questions about why telephony and BIAS (broadband Internet access service) are not governed under the same Title II classification will be raised.

Defining and classifying ISPs and their goods and services provided to users informs how data packets and the Web are governed. Legal cases set precedents for how ISPs can deliver data packets across networks, but these precedents can be interpreted in different ways. Net neutrality advocates and opponents argue over the interpretation of laws and regulations. Section 6.2.2 will examine some of the pre-existing classifications (i.e., classifications that pre-existed the Internet) to understand how data packets and the Web ought to be governed.

Media professors Barbara Cherry, Julien Mailland, and Matt Pierce at Indiana University submitted reply comments to the Electronic Comment Filing System (ECFS) and argued common carriage was a regulatory classification based on the function of the service (Cherry et al., 2017). Common carriage had the “technical functionality of being a conduit, and the commercial functionality of holding oneself out to serve the public” (pp. 16–17). Common carriage as a regulatory classification did not relate to the number of ISPs, “much less monopoly” (p. 17). By contrast, public utility was rooted in legal statutes “based on state law” from the “grant of a franchise by government to the entity” to provide service (p. 17). Telephone companies have always been treated as both a *common carrier* and public utility, but FCC jurisdiction was based on common carriage status. Cherry et al. (2017, p. 17) pointed out that the open Internet issue before the FCC was not one of public utility law; however, some net neutrality opponents conflated public utilities and common carriage with the issue of monopolies. The misperception could be crafted as: public utilities were associated with monopolies, so common carriage must also be associated with monopolies, therefore there is no need for regulation if monopolies become destroyed. The monopoly theory misperception could lead one to conclude that there was no need for common carriage classification if ISP monopolies ceased to exist (p. 17). Cherry et al. (2017, p. 17) made the point of monopoly theory

misperception to claim that the FCC’s NPRM (notice-of-proposed-rulemaking) falsely branded the 2015 Open Internet Order as a public utility-style classification with “outmoded regulations fostering stodgy monopolies that fail to innovate or keep up with consumer demands.” Beyond the debate between public utility (legal) and common carriage (regulatory), most net neutrality advocate versus opponent arguments grappled with Title I and II classifications.

In the *Mozilla Corp. v. FCC* (2019) case, Judge Patricia Millet asked whether *telecommunication* (Title II) and *information* (Title I) services were mutually exclusive. Pantelis Michalopoulos from Steptoe & Johnson LLP, one of the representatives of the Petitioners, confirmed that both services were mutually exclusive. Judge Millet said that the FCC’s determination that BIAS was an *information* service “necessarily precludes that it is a telecom service” (*TR State NewsWire*, 2019). Michalopoulos was frustrated that the FCC refused to answer whether an ISP provided a *telecommunication* service when it transmitted data from an edge provider. Michalopoulos made the claim that the same ISP could provide both *telecommunication* and *information* services. Judge Stephen Williams noted that *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) case classified ISPs as offering *information* services. And Judge Robert Wilkins noted the difficulty in separating the *telecommunication* and *information* services since major ISPs were “vertically integrated providers of content as well as Internet access” (*TR State NewsWire*, 2019).

In another line of questioning, Judge Patricia Millet asked how user expectations about Internet service was to be calculated. When Pantelis Michalopoulos answered that polling 50,000 user complaints to help figure out user expectations may be viable, Judge Millet turned to say that polling 50,000 users out of the millions upon millions of subscribers would not sufficiently inform expectations about Internet service. Thousands of ill-informed users, “even a

million of them,” should not control the definition and classification of the service (*TR State NewsWire*, 2019). Even though the FCC perceived its “hands to be tied” after classifying BIAS as an *information* service, Michalopoulos argued that ISPs still had faith in the FCC’s power to be able to regulate through means other than through the regulatory power that derived from classifying BIAS under Title II (2019). What exactly were the FCC’s other regulatory measures to defend net neutrality principles ISPs were referring to? What power did the FCC have in regulating the Internet market economy?

Net neutrality opponents brought up a different point on classifications in the counterstatement of the respondents in the *Mozilla Corp. v. FCC* (2019) case. Respondents raised the decision in the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) case to claim that the FCC could read the word *offering* to mean a *stand-alone offering* of telecommunications, where messages were transmitted “unadulterated by computer processing” (Respondents Federal Communications Commission, 2018, p. 8). Furthermore, the FCC could classify services as integrated finished services, such as “Internet access” rather than as “discrete components” of each service (p. 8). Therefore, the transmission of data components was integrated with the finished service to describe the two as an integrated offering. Put another way, online users utilized the transmission component in connection with *information-processing* provided by Internet access to the Web (p. 8).

In the *United States Telecom Ass’n & CenturyLink, Inc. v. FCC* (2017) petition in the U.S. Supreme Court, Petitioners argued that the 2015 Order treated BIAS as an offering of a pure transmission service (i.e., as a *telecommunication* service under Title II), not both a transmission service and *information* service. The FCC’s 2015 Order was based on “an untenable reading of Brand X: the pizzeria no longer offers ‘pizza’ or ‘pizza delivery,’ it just offers ‘delivery’”

(2017). Republican Associate Justice of the Supreme Court of the United States Antonin Scalia's dissenting opinion on the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) case aligned with net neutrality advocates' argument at the time that the "transmission over the last mile of cable to a subscriber's computer 'merely serves as a conduit for the information services that have already been 'assembled'" by ISPs (*United States Telecom Ass'n & CenturyLink, Inc. v. FCC*, 2017).

Turning back to the *Mozilla Corp. v. FCC* (2019) case, the court's presiding judges tried to discern why telephony and BIAS were not governed under the same Title II classification. Another representative of the Petitioners from Steptoe & Johnson LLP, Kevin Russell, pointed out that under the FCC's definition in the 2017 Order, mobile voice service was not a *telecommunication* service. Users could not make a phone call without a phone running compatible software. Judge Stephen Williams objected to Russell's argument by saying that, "[y]ou're speaking as though mobile broadband is only for smartphones. It can also be used for iPads," to which Russell replied that iPads could also be used for voice calls (*TR State NewsWire*, 2019). On the other side, Judge Patricia Millet asked Thomas Johnson, General Counsel for the FCC, to explain how telephony could survive as a *telecommunication* service under the 2017 Order rules. Judge Millet was essentially asking how telephony differed from the Title I classification attributed to BIAS since one could retrieve and share information over the telephone (2019). The question was asked in a critical manner to see why the FCC did not address this issue in the 2017 Order. Johnson remarked, "[w]e can go back and forth in whether the Commission is entitled to regulate these two services differently." But Judge Millet persisted in trying to understand the difference in *telecommunication* and *information* service classifications (2019). Johnson respectfully answered Judge Millet's question by saying that an

information service “‘always and necessarily’” acts on the information (2019). Johnson continued that the FCC treated DNS (Domain Name System) look-up and caching as criteria for classifying BIAS as an *information* service. DNS consisted of matching names to numbers of a website and caching consisted of the storing of data to load future requests faster and reduce latency. To explain, in the brief of the respondents (Respondents Federal Communications Commission, 2018, p. 17) in the *Mozilla Corp. v. FCC* (2019) case, the FCC clarified by citing *National Cable & Telecommunications Association v. Brand X Internet Services* (2005). Here, DNS and caching were integrated information-processing capabilities and were part and parcel of BIAS. Without DNS, a user would be unable to access a site by typing its name, and caching stored third-party content (information) on local servers for users to access (Respondents Federal Communications Commission, 2018, p. 17).

At times, definitions and classifications were misaligned with definitions and classifications set by precedent cases. This created confusion in the court proceedings around what was being referenced. For instance, the FCC’s General Counsel had a difficult time answering whether an ISP provided a *telecommunication* service. Recall from Chapter 4’s section 4.2.1’s discussion on *pizzas* and *hotels* how the FCC argued in the 2017 Order (Restoring Internet Freedom, 2017, p. 31; emphasis in original) that “an ISP *makes use of* telecommunications – i.e., it provides information-processing capabilities ‘via telecommunications’ – but does not separately *offer* telecommunications on a stand-alone basis to the public.” So, if the FCC suggested that all *information* services carried out functions and features via *telecommunications* in the 2017 Order, why was its General Counsel hesitant to answer questions about whether an ISP provided a *telecommunication* service? Net neutrality advocates and opponents argued for or against ultra-specific, and sometimes contradictory,

regulatory classifications of ISPs. One of the unsolved mysteries of the motives behind writing the 2017 Order was why the FCC rescinded its regulatory authority. Section 6.2.3 briefly reviews the legacy of antitrust law and how it was formulated to describe the legal context surrounding the idea of the FTC regulating ISP trade practices instead of the FCC.

6.2.3 – On Whose Authority?

Section 6.2.3 begins with a question: why did the FCC rescind its regulatory authority under the direction of the 2017 Order? I will review the significance of how antitrust law was formulated in 1890 and revisit the idea of the FTC regulating ISP trade practices instead of the FCC. I will assess net neutrality advocates and opponents' arguments about to what extent trusts (i.e., a connected group of corporate enterprises that consolidate market power) should be regulated. Net neutrality advocates believe that information and ideas should be valued to increase competition and corporate legal tools create barriers for new entrants. Net neutrality opponents believe that monopolies foster competition that in turn decrease prices and give users options through price discrimination. Next, the benefits of antitrust and consumer protections laws, as governed by the FTC's regulatory framework, are debated. The FTC's lawsuit and AT&T's appeal to the U.S. Supreme Court serves as a brief case study as to how the FTC's regulatory defence of net neutrality principles (i.e., no throttling of data) fails to uphold net neutrality principles. Net neutrality advocates also argue that ISPs' terms of service agreement disclosures were promises to uphold net neutrality principles that could be easily broken.

Robert Reich, the former Democratic U.S. Secretary of Labor under the Democratic Clinton administration, wrote a 51-page OpEd about how to find common ground during pro and anti-Trump conversations. Reich argued to observe debatable issues beyond the lens of conservative versus liberal ideologies or ideals. For instance, Reich told his readers to look at the

fact that Republican President Trump hand-picked Ajit Pai to abolish net neutrality. Reich anticipated that as a Republican FCC Chairman, Pai would drive up prices for Internet access, give ISPs the authority to block, throttle, and prioritize sites that did not match ISPs' political perspectives, and stifle innovation by suppressing competition (Reich, 2018). Reich outlined these three consequences under the framework of how U.S. consumer markets had become increasingly monopolized. According to Reich, dominant market control by four or less corporations or corporate consolidations in the industries of cable and Internet services, airline and hotel bookings, pharmaceuticals, plastic hangers, and sunglasses, to name a few, were pursued for one reason: "power" (2018). Reich questioned where antitrust was being held in the balance between market fairness and greed.

Robert Reich (2018) described how the first antitrust law was created in 1890 when Republican Senator John Sherman responded to the outrage over the sheer economic and political power of the *trusts* – railroad, steel, telegraph, and oil cartels. *Trusts* can be understood as a connected group of corporate enterprises that consolidated market power. A small number of "corporate chieftains" labelled "robber barons" presided over the trusts by amassing great wealth at the expense of workers who were exposed to hazardous conditions (2018). In 1901, Republican President Theodore Roosevelt delivered a message to Congress in December by warning, "[t]here is a widespread conviction in the minds of the American people that ... trusts are in certain of their features and tendencies hurtful to the general welfare" (2018). President Roosevelt used the Sherman Antitrust Act to "go after the Northern Securities Company, a giant railroad trust run by J. P. Morgan" and ordered the company to dismantle (2018). Another example was how in 1911, J.D. Rockefeller's Standard Oil Trust was broken up, but the U.S. Supreme Court's decision altered the Sherman Antitrust Act by saying that "monopolistic

restraints of trade were objectionable if they were ‘unreasonable’ – and that determination was to be made by the courts” (2018). During the presidential election in 1912, President Roosevelt campaigned on his promise to “allow some concentration of industries where there were economic efficiencies due to large scale” and have “experts regulate these large corporations for the public benefit” (2018). But Woodrow Wilson, who won the election, said that regulation would be ineffective and “thought all monopolies should be broken up” (2018). For the next 65 years, both Roosevelt and Wilson’s ideas would swing back and forth on the political pendulum until 1978. Republican Solicitor General Robert Bork, in his influential book, *The Antitrust Paradox*, argued that antitrust legal intervention raised prices by protecting weak enterprises from competition. Competition in the market should be defended, not individual enterprises (2018).

Robert Reich (2018) pointed out that Robert Bork’s claims, about how mergers and large corporate size created market efficiencies that brought down prices and should be legal, influenced the way antitrust was perceived by Republican and Democratic Party administrations in the following years. Vertical corporate growth through mergers and expanding market sector shares and giving consumers options through price discrimination would foster consumer welfare -- the primary goal of antitrust law. However, Reich pointed out that “information and ideas are the most valuable forms of property,” and that the concentration on scale in the *high-tech* industry (i.e., the most advanced, bleeding edge of technology available) is evidence of a decline in competition (2018). Reich also noted that high-tech’s “sweeping patents, standard platforms, fleets of lawyers to litigate against potential rivals, and armies of lobbyists have created formidable barriers to new entrants” (2018).

On the other side of the antitrust debate, according to the FCC majority in the 2017 Order (Restoring Internet Freedom, 2017, p. 88), the benefits of antitrust laws over public utility regulation were: “(1) the rule of reason allows a balancing of pro-competitive benefits and anti-competitive harms; (2) the case-by-case nature of antitrust allows for the regulatory humility needed when dealing with the dynamic [I]nternet; (3) the antitrust laws focus on protecting competition; and (4) the same long-practiced and well-understood laws apply to all [I]nternet actors.” The FTC has “authority to oversee the trade practices of entities across numerous market sectors under Section 5 of the Federal Trade Commission Act (FTC Act), which prohibits unfair methods of competition and unfair and deceptive trade practices” (Gilroy, 2019a, pp. 1–2). However, certain entities and activities are exempted from Section 5’s coverage. Unlike the FCC, the FTC “rarely issues prescriptive rules” unless directed by Congress, and instead examines “factual circumstances” on a case-by-case basis against alleged violators of Section 5 (p. 2). The FTC would have no jurisdictional authority over ISPs if BIAS (broadband Internet access service) was classified under Title II since *telecommunication* services were *common carriers* under the Communications Act of 1934. The FTC would have jurisdictional authority over ISPs if BIAS was designated as a Title I *information* service (p. 2). The 2017 FCC majority wished to return authoritative power back to the FTC because of its “extensive experience overseeing data security and privacy practices across numerous sectors” (p. 2). Other net neutrality advocates argued that the case-by-case adjudication process was inconsistent and “lacked certainty;” a more viable option would be to rest authoritative power into the FCC’s hands to establish a “regulatory framework” to “serve public interest” (p. 2).

Net neutrality advocate and Democratic FCC Commissioner Mignon Clyburn argued the FTC could only exercise its authority through litigation after effects of ISP harms (i.e., blocking,

throttling, and paid prioritization of data) occurred, which inferred that a start-up or sole proprietor would have to wait a long time to see a result (i.e., a legal decision in its favour or not) (Restoring Internet Freedom, 2017, p. 230). Commissioner Clyburn also discussed that consumer harms were unlikely to reach the attention of the FTC since its “standard is that consumer injury must be ‘substantial’ in order to state a claim under the FTC Act” (p. 230). Clearly outlined protections would be traded in for “uncertain” protections, and some critics of the FTC were outspoken about the regulatory overreach it had exercised in the past (p. 230). Commissioner Clyburn brought up her fears of what adjudication of harms may look like in the future and some of her apprehensions of repealing the FCC’s regulatory authority. What was the FTC’s track record as an authority over the broadband market when it was permitted to act as one?

An article by *ICT Monitor Worldwide* (2018) commented on AT&T’s appeal to the U.S. Supreme Court to avoid a lawsuit over its throttling of unlimited data plans. Before the 2015 Order was enacted, the FTC sued AT&T in October 2014 in the U.S. District Court in Northern California, “alleging that AT&T promised unlimited data to wireless customers and then throttled their speeds by as much as 90 percent” (2018). Recall that BIAS was not considered a *telecommunication* service before 2015 (i.e., ISPs had Title I *information service provider* status). AT&T argued that the FTC had no jurisdiction since it lacked the necessary authority to regulate common carriers, and AT&T was considered a common carrier for its mobile and landline voice services. The FTC’s lawsuit related to mobile broadband (BIAS) services, not voice services, and mobile broadband was not classified as a common carrier service in 2014.

AT&T argued for a “status-based reading of the common carrier exception,” which would mean that a company with the status of common carrier could be absolved from any FTC-punishment even when it offered non-common carrier services (*ICT Monitor Worldwide*, 2018).

By contrast, the FTC argued for an “‘activity-based reading’ of the common carrier exception,” which would allow the FTC to “regulate any non-common carrier service, even when it’s offered by a company that is otherwise a common carrier” (2018). Net neutrality consumer advocacy groups in 2017 urged Republican FCC Chairman Ajit Pai to delay the 2017 Order hearing vote until this case was finished, but he refused. The FTC was confident that the Supreme Court would not take the case and that it wished to resume discovery in its lawsuit “without waiting for the Supreme Court to decide whether it will take the case” (2018). If AT&T failed at the Supreme Court, the FTC’s lawsuit would continue, “which seeks refunds for customers;” however, the case would have virtually no impact on other ISPs since its VoIP (Voice over Internet Protocol) “phone systems haven’t been classified as a common carrier service” (2018).

In sum, AT&T’s mobile and landline voice services classified AT&T as a *common carrier* with Title II status and thus allowed it to evade FTC regulation. In other words, even though its BIAS was classified under Title I *information* service in 2014, AT&T relied on its Title II *common carrier* classification from its voice services to evade FTC regulation. And the FTC attempted to seek approval from the court to regulate any non-common carrier service (i.e., BIAS) even if that company was considered a common carrier (i.e., the voice services that made AT&T a common carrier). Regulatory classifications directly impacted how and by what agency regulation would be exercised over ISPs and the BIAS it provided. This one example showed that the FTC’s regulatory defence of net neutrality principles (i.e., no throttling of data) failed to uphold net neutrality principles.

Kevin Russell, a representative of the Petitioners in the *Mozilla Corp. v. FCC* (2019) case, brought up other FTC regulatory framework weaknesses. Russell argued that disclosures by ISPs in their terms of service agreements was “no remedy if there is no place for an aggrieved

party to go seek relief” (*TR State NewsWire*, 2019). Judge Robert Wilkins sarcastically added to Russel’s point that, “and of course we all read those disclosures carefully” (2019). Russell also argued that antitrust law was not designed to protect free speech. Judge Patricia Millet wondered, “[w]hat would a court have to do to determine that the FCC’s antitrust analysis was insufficient” (2019)?

Steven Wu, another representative of Petitioners in the *Mozilla Corp. v. FCC* (2019) case, brought up the possibility of states crafting net neutrality bills to force ISPs to play nice in their own state bordered sandbox. Wu argued that the FCC needed “express authorization by Congress to pre[-]empt state authority, and in this case it is dictating what states can do in an area where it says it has no authority itself” (*TR State NewsWire*, 2019). Judge Wilkins suggested that the court “should wait until a specific state law is pre[-]empted” before a court review could commence, but Wu urged that the court should not “underestimate the burden on states of having their duly enacted laws invalidated” (2019). Judge Wilkins then replied whether the *impossibility exception* applied (i.e., “whether it is impossible for state regulations and the FCC decision that it can’t regulate to coexist”) (2019). Wu said that the *impossibility exception* applied “when the FCC takes affirmative action, not when it says it lacks authority” (2019). In section 6.2.4, I will describe arguments for and against net neutrality regulation by various authoritative state and federal government agencies with competing jurisdictional powers. The *impossibility exception*, the federal policy of nonregulation for *information* services, and the 47 U.S.C. § 160(e)’s forbearance provision in the context of the 2017 Order and the *Mozilla Corp. v. FCC* (2019) case are first examined. What follows are questions that ask to what extent state and local laws can uphold net neutrality principles as an alternative to interstate regulation of data packets and the Web.

6.2.4 – Interstate vs Intrastate Jurisdiction

Regulatory classifications of ISPs and the BIAS it provides, predicated on Title I or II of the Communications Act of 1934, informs how authoritative state and federal government agencies compete for jurisdictional powers. The extent of FCC and FTC jurisdictional powers to vie for regulatory control over net neutrality principles are usually the primary focus in the net neutrality debates. Nonetheless, I go beyond the two federal commissions to ask whether and to what extent state and municipal jurisdictional powers provide regulatory control over net neutrality principles. Section 6.2.4 outlines the arguments for and against interstate versus intrastate jurisdictional regulations and laws of data packets and the Web. The first narrative explores whether and to what extent the FCC has grounds to pre-empt state and local legal efforts that overturn the 2017 Order. The jurisdictional powers debate centre around the context of the 2017 Order and the *Mozilla Corp. v. FCC* (2019). The following discussions will be assessed: the *impossibility exception* (i.e., the FCC may pre-empt state law when it is impossible or impracticable to regulate intrastate service without affecting interstate communications and if the FCC determines that state regulations interfere with federal regulations); the federal policy of nonregulation for *information* services (i.e., the FCC has independent authority to displace state and local regulations when ISPs are deemed *information service providers* that provide *information* services); and the 47 U.S.C. § 160(e)'s forbearance provision (i.e., Congress never intended state or local governments to countermand federal policies of nonregulation or hold superior authority over the federal government). Net neutrality advocates' main point of contestation is that when the FCC abdicated its own authority in the 2017 Order, it removed itself from any oversight and precluded itself from pre-empting state efforts. Net neutrality

opponents' main concern is that a patchwork of separate state and local laws and regulations could impede interstate communication and pose a burden on ISPs.

The second narrative describes the State of California's proposal to enact its own statewide broadband access bill and municipal efforts to introduce city and region-wide net neutrality rules for ISPs. I will assess net neutrality advocates' claims about how the State of California's net neutrality legislation legally justifies the preservation of net neutrality principles and net neutrality opponents' claims about how it violates the Constitution under the Supremacy and Commerce clauses. In addition, a group of mayors from around the U.S. sent a joint letter in support of net neutrality protections in their municipalities and wrote about the negative consequences of repealing net neutrality. A number of politicians from the City of New York express their concerns. Chapter 6 ends by considering how laws must be decided by Congress first, then policy questions could follow. Net neutrality opponents argue for a *law layered approach* (i.e., a variety of agencies and actors that hold broad powers to uphold antitrust and consumer protection laws). Net neutrality advocates argue for a set of net neutrality bright-line rules with a general conduct rule to account for exceptions. Both sides agree that net neutrality has been, and still is, in legal and regulatory limbo.

6.2.4.1 – Grounds for Pre-Emption?

This first subsection explores whether and to what extent the FCC has grounds to pre-empt state and local legal efforts that overturn the 2017 Order. The jurisdictional powers debate centre around the context of the 2017 Order and the *Mozilla Corp. v. FCC* (2019). The following discussions will be assessed: the *impossibility exception* (i.e., the FCC may pre-empt state law when it is impossible or impracticable to regulate intrastate service without affecting interstate communications and if the FCC determines that state regulations interfere with federal

regulations); the federal policy of nonregulation for *information* services (i.e., the FCC has independent authority to displace state and local regulations when ISPs are deemed *information service providers* that provide *information* services); and the 47 U.S.C. § 160(e)’s forbearance provision (i.e., Congress never intended state or local governments to countermand federal policies of nonregulation or hold superior authority over the federal government). Net neutrality advocates’ main point of contestation is that when the FCC abdicated its own authority in the 2017 Order, it removed itself from any oversight and precluded itself from pre-empting state efforts. Net neutrality opponents’ main concern is that a patchwork of separate state and local laws and regulations could impede interstate communication and pose a burden on ISPs.

The FCC majority carved out a section in the 2017 Order to discuss the superior authority the FCC held over state and local authority. According to the FCC, it had the legal authority to pre-empt inconsistent state and local laws on three grounds: the *impossibility exception*, the federal policy of nonregulation for *information* services, and the 47 U.S.C. § 160(e)’s forbearance provision. The U.S. Supreme Court recognized that under the *impossibility exception*, the FCC may pre-empt state law when “(1) it is impossible or impracticable to regulate the intrastate aspects of a service without affecting interstate communications and (2) the Commission determines that such regulation would interfere with federal regulatory objectives” (Restoring Internet Freedom, 2017, p. 119). The FCC argued that both conditions were satisfied for the simple fact that “because state and local regulation of the aspects of ... [BIAS] would interfere with the balanced federal regulatory scheme we adopt today, they are plainly pre-empted” (pp. 119–120). The FCC cited *Bell Atl. Tel. Cos. v. FCC* (2000) to say that Internet access is a jurisdictionally interstate service since “‘a substantial portion of [I]nternet traffic involves accessing interstate or foreign websites’” and that the FCC recognized BIAS as

an “interstate information service” in its *Cable Modem Order* and in the *Wireless Broadband Internet Access Order* (as cited in *Restoring Internet Freedom*, 2017, p. 120). Even in the 2015 Order, the previous FCC reclassified BIAS as a *telecommunication* service under Title II and recognized that BIAS was “jurisdictionally interstate for regulatory purposes” (as cited in *Restoring Internet Freedom*, 2017, p. 120).

The point the FCC made was that BIAS was interstate because “a substantial amount of Internet traffic begins and ends across state lines” and that it was “impossible or impracticable for ISPs to distinguish between intrastate and interstate communications over the Internet or apply different rules in each circumstance” (*Restoring Internet Freedom*, 2017, p. 120). Thus, an ISP could not be co-jurisdictional in complying with state or local rules *and* federal rules simultaneously. Intrastate and interstate communication rules were incompatible. Again, the two conditions of the *impossibility exception* were met by the FCC in its argument on how it was impossible or impracticable to regulate intrastate BIAS without affecting interstate communications and that statewide broadband access bills would interfere with federal regulatory objectives.

Second, the FCC argued that it had “independent authority to displace state and local regulations [and laws] in accordance with the longstanding federal policy of nonregulation for information services” (*Restoring Internet Freedom*, 2017, p. 121). When Congress adopted the FCC’s “regulatory framework and its deregulatory approach to information services” in the Telecommunications Act of 1996, Congress embraced the FCC’s “longstanding policy of pre[-]empting state laws that interfere[d] with ... [its] federal policy of nonregulation” (pp. 121–122). 47 U.S.C. § 230(b)(2) established that it was “the policy of the United States’ to ‘preserve the vibrant and competitive free market that presently exists for the Internet and other interactive

computer services’ – including ‘any information service’ – ‘unfettered by Federal or State regulation’” (as cited in Restoring Internet Freedom, 2017, p. 122). In addition, the FCC referenced 47 U.S.C. § 153(51) to argue that it was forbidden for “any common-carriage regulation, whether federal or state, of information services” (p. 122). In 47 U.S.C. § 153(51), *information* services was defined as, “the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.”

And third, the FCC’s pre-emption authority was found to have support from the forbearance provision found in 47 U.S.C. § 160(e). Here, the FCC’s forbearance determinations expressly pre-empted any contrary state regulatory or legal efforts. The FCC argued that, “[i]t would be incongruous if state and local regulation were pre[-]empted when the Commission decides to forbear from a provision that would otherwise apply, or if the Commission adopts a regulation and then forbears from it, but not pre[-]empted when the Commission determines that a requirement does not apply in the first place” (Restoring Internet Freedom, 2017, p. 122). What the FCC argued here was that Congress never intended for state or local governments to “be able to countermand a federal policy of nonregulation or to possess any greater authority over ... the federal government” (pp. 122–123).

In 47 U.S.C. § 253(c), it was clearly written that (a) no state or local regulation and law “may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service” and (b) that states can impose “on a competitively neutral basis ... requirements necessary to preserve and advance universal service, protect the

public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers.” In terms of pre-emption under 47 U.S.C. § 253(c), the FCC may determine that a state or local government “has permitted or imposed any statute, regulation, or legal requirement that violates” subsections (a) or (b) (as written above). If the FCC determined a violation occurred after its NPRM (notice-of-proposed-rulemaking), the FCC “shall pre[-]empt the enforcement of such statute, regulation, or legal requirement to the extent necessary to correct such violation or inconsistency” (47 U.S.C. § 253(c)). The FCC argued in a footnote in the 2017 Order that some Electronic Comment Filing System (ECFS) commenters noted that 47 U.S.C. § 253(c) preserved state authority over *telecommunication* services. The FCC was quick to dismiss that provision since BIAS was now designated as an *information* service (Restoring Internet Freedom, 2017, p. 123).

Net neutrality advocates cited federal laws to support their arguments as well. Net neutrality advocates Open Technology Institute at New America (2017b), a think tank and civic innovation platform that develops public policy, filed reply comments to the ECFS on December 7, 2017 (well past the August 30, 2017 submission cut-off date). The comments criticized the FCC’s reliance on the *impossibility exception* as a legal basis for pre-empting state laws. The Open Technology Institute (OTI) argued that the FCC did not provide “adequate notice of its intent to pre[-]empt and the basis for its pre[-]emption” (p. 1). The *impossibility exception* “is a fact-intensive determination” that would allow the FCC to “exercise narrow pre[-]emption authority of state laws and regulations that govern activities that are purely interstate or impossible to separate from intrastate activities” (p. 1). The OTI said that the public lacked a full understanding of the facts, and so the FCC had no right to pre[-]empt. Furthermore, the OTI cited 47 U.S.C. § 152(b) to show how there could be a “congressional denial of power to the

FCC” in respects to “charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier.” 47 U.S.C. § 152(b) prohibited FCC regulation on intrastate matters “even when the intrastate matters are done in connection with the interstate matters and when facilities are physically inseparable” (Open Technology Institute at New America, 2017b, p. 2). The FCC’s authority to regulate intrastate BIAS “does not turn on whether the services are provided on a common carrier or non-common carrier basis” (47 U.S.C. § 152(b)).

The OTI criticized the FCC’s claim in its 2017 Draft Order that it rightfully pre-empted state laws related to ISP practices since the Telecommunications Act of 1996 constituted unambiguous command from Congress. The OTI argued that the Telecommunications Act of 1996 provisions were “‘subject to the substantive and interpretative limitations of Section 152(b)’ and ‘should not be read to confer upon the FCC jurisdiction over [intrastate activities] unless [the provisions were] ‘so unambiguous or straightforward so as to override the command of § 152(b)’” (as cited in Open Technology Institute at New America, 2017b, p. 2). In addition, the OTI acknowledged the FCC’s claim that when BIAS travelled across state lines or when it was impossible to verify when data traffic was “travelling across state lines, it is jurisdictionally interstate” (p. 3). However, the *impossibility exception* would not apply when an ISP could determine that “the start and end points” of BIAS “occur only within a state,” and therefore made it “possible to separate the interstate and intrastate aspects of the service” (p. 3).

The OTI pointed out the irony that the FCC’s 2017 Draft Order relinquished the FCC’s own authority. According to the FCC’s 2017 Draft Order, since BIAS was classified as an *information* service, it lacked “authority to impose any conduct rules on ISPs;” thus, the FCC “cannot thereafter assert that it has a policy goal of removing regulations for something over

which it has no authority” (Open Technology Institute at New America, 2017b, p. 3). This was to say that when the FCC decided to abdicate its own authority, it removed “itself from any oversight and preclude[d] itself from pre[-]empting state efforts” (p. 3). Petitioners in the *Mozilla Corp. v. FCC* (2019) case similarly argued that when the FCC admitted that it lacked statutory authority to regulate BIAS and Internet access-related practices, it thereby resigned authority to pre-empt state and local laws.

In its brief for government Petitioners in the *Mozilla Corp. v. FCC* (2019) case, Mozilla Corporation et al. contended that the FCC disavowed Title II authority over ISPs, so the FCC’s pre-emption order could only be rooted in Title I ancillary authority, “which in turn must be based on some separate statutorily mandated responsibility” (Government Petitioners States of New York et al., 2018, p. 12). The FCC threw the baby out with the bathwater. An agency that deemed “itself to lack statutory authority to regulate a particular practice altogether cannot rely on the same absence of authority to pre[-]empt state regulation” or law (p. 39). The bottom line for the government Petitioners was that the 2017 Order should be “vacated and reversed” (p. 56). When Congress did not intend to displace state law, states had policing powers to protect consumers from harmful business practices. According to 47 U.S.C. § 1304, Congress encouraged and supported states to collect data about ISPs and their BIAS to “compel regulatory disclosures from providers” by federally funding state studies on broadband infrastructure deployment (pp. 55–56). States can, with their jurisdictional might, mandate public disclosures from ISPs to “protect consumers from being cheated based on their ignorance of material facts” (p. 56).

The respondents in the *Mozilla Corp. v. FCC* (2019) case were worried, as expressed in its own 2017 Order, that allowing state and local laws could “impede interstate communication”

since it would require a ““patchwork of separate and potentially conflicting requirements across all of the different jurisdictions in which it operates”” (Respondents Federal Communications Commission, 2018, p. 112–113). The respondents posed the question that if ISPs used “overlapping physical transmission facilities to supply Internet service to consumers in each state, how can it simultaneously comply with both laws” if one state forbids the prioritization of data traffic and a neighbouring state does not (p. 113)? How could wireless signals obey jurisdictional boundaries? Respondents feared that multiple competing state laws would pose an ““undue burden”” on ISPs that could ““inhibit broadband investment and deployment and would increase costs to consumers”” (p. 113).

Section 6.2.4.1 reviewed claims for and against the *impossibility exception*, the federal policy of nonregulation for *information* services, and the 47 U.S.C. § 160(e)’s forbearance provision in the context of the 2017 Order and the *Mozilla Corp. v. FCC* (2019) case. Both net neutrality advocates and opponents used various federal laws as ammunition to debate how state and local governments could or could not govern data packets and the Web within their jurisdictional territories. Next, I will return to the State of California’s proposition to enact its own statewide broadband access bill. How sustainable was state jurisdictional authority over ISPs in governing data packets and the Web?

6.2.4.2 – California & Municipalities

This second subsection describes the State of California’s proposal to enact its own statewide broadband access bill and municipal efforts to introduce city and region-wide net neutrality rules for ISPs. I will assess net neutrality advocates’ claims about how the State of California’s net neutrality legislation legally justifies the preservation of net neutrality principles and net neutrality opponents’ claims about how it violates the Constitution under the Supremacy

and Commerce clauses. In addition, a group of mayors from around the U.S. sent a joint letter in support of net neutrality protections in their municipalities and wrote about the negative consequences of repealing net neutrality. A number of politicians from the City of New York express their concerns. Chapter 6 ends by considering how laws must be decided by Congress first, then policy questions could follow. Net neutrality opponents argue for a *law layered approach* (i.e., a variety of agencies and actors that hold broad powers to uphold antitrust and consumer protection laws). Net neutrality advocates argue for a set of net neutrality bright-line rules with a general conduct rule to account for exceptions. Both sides agree that net neutrality has been, and still is, in legal and regulatory limbo.

Democratic State of California Governor Jerry Brown signed into law the “gold standard” for net neutrality in the U.S., and the DOJ almost immediately filed a lawsuit to challenge the state’s lawful protections over net neutrality principles (*TR State NewsWire*, 2018b). The DOJ said that the state’s actions unlawfully imposed “burdens on the federal government’s deregulatory approach to the Internet” (2018b). Upon hearing the news, Republican U.S. Attorney General Jeff Sessions said that states did not govern interstate commerce according to the Constitution. AG Sessions continued, “the California legislature has enacted an extreme and illegal state law attempting to frustrate federal policy. The Justice Department should not have to spend valuable time and resources to file this suit today, but we have a duty to defend the prerogatives of the federal government and protect our constitutional order” (2018b). On the other hand, Democratic State Attorney General Xavier Becerra said that the State of California would “not allow a handful of power brokers to dictate sources for information or the speed at which websites load” (2018b). The DOJ argued that due to the size of the State of California and its impact on the Internet market economy, California effectively

“dictated” BIAS law “for the entire nation” (2018b). The DOJ also argued that, by default, the State of California’s net neutrality provisions would be the “only ones that matter” in neighbouring jurisdictions that did not follow the same or similar net neutrality rules and would thus create “regulatory uncertainty and instability” (2018b).

Net neutrality advocate and law professor (and telecommunications expert who coined the term *net neutrality*), Tim Wu, appeared on an NRP Morning Edition (2018) broadcast with host Rachel Martin to discuss how effective the State of California’s position was in governing data packets. Wu claimed that the State of California was not trying to control the entire Web. It was attempting to govern how data packets were being delivered, and data packets “are always delivered locally” via “that thing in your home and the wire to the local state” (2018). Wu wondered to what extent states were “free to experiment economically [to] fill in gaps” (2018). Since the passing of the 2017 Order, dozens of states challenged federalism. The question about which government entity got to decide how to govern data packets and the Web became a source of tension between net neutrality advocates and opponents.

President of USTelecom (a trade association that represents telecommunications businesses), Johnathan Spalter, said that states could not get around the simple fact that “the Internet and Internet access is interstate commerce” and that “[y]ou cannot send packets of data to my family in California without traversing a number of states” (Fung, 2018). By contrast, public-interest lawyer and lecturer in public-interest law at Georgetown University, Andrew Schwartzman, cited that “[c]ourts have consistently held that when the federal government lacks authority to regulate, it cannot pre[-]empt states from regulating” or enacting laws (2018). Telecom attorney at Perkins Coie law firm, Marc Martin, disagreed to the extent that if there was a precedent for the federal government to call for the deregulation of an interstate commerce

issue, it could still prevent states from filling the regulatory and jurisprudential gap. Martin compared this issue of interstate and intrastate regulation to the airline industry. Congress deregulated the airline industry in 1978 by “eliminating the Civil Aeronautics Board and its rules governing airfare prices” and barred states from implementing their own regulations (2018). The debate about jurisdictional rights to govern data packets and the Web peaked in the *American Cable Ass’n v. Becerra* (2018) case.

The American Cable Association (ACA), CTIA – The Wireless Association, NCTA – The Internet & Television Association, and USTelecom – The Broadband Association (a collection of trade associations that represented the wireless communications industry) brought forth a complaint against Democratic State Attorney General Xavier Becerra in the U.S. District Court for the Eastern District of California. The plaintiffs complained about the unconstitutional nature of the State of California’s net neutrality legislation (*American Cable Ass’n v. Becerra*, 2018). The plaintiffs argued that the State of California’s legislation intended to “countermand and undermine” federal rules by issuing net neutrality rules on ISPs, the very same rules that were “expressly repealed” in the 2017 Order (2018). This action was done even though the FCC’s decision and the Communications Act of 1934 prohibited states from taking this action against “jurisdictionally interstate services” (2018). The plaintiffs attempted to make the case that the act was pre-empted under the Supremacy Clause of the U.S. Constitution, and that the act governed far beyond state lines. The act also “unduly burdens interstate commerce in violation of the Commerce Clause of the US Constitution” (2018). Both the Supremacy and Commerce Clauses protected ISPs from a “patchwork of inconsistent regulations that are unduly burdensome and impossible to comply with as a practical matter” (2018). The act attempted to re-impose the restrictions (i.e., no blocking, throttling, or paid prioritization) set by the 2017

Order on ISPs in the State of California and overall common carrier regulation of ISPs’ “Internet interconnection and traffic-exchange practices” (2018). In addition, the act banned zero rating of traffic delivered and imposed “ambiguous restrictions on agreements for the exchange of Internet traffic with edge providers and other Internet network operators” (2018).

In the 2017 Order, the pre-emption provision clearly expressed that it would “pre[-]empt any state or local measures that would effectively impose rules or requirements that [the FCC had] repealed or decided to refrain from imposing in this order or that would impose more stringent requirements for any aspect of broadband service[,] ... includ[ing] any state laws that would require the disclosure of [BIAS] performance information, commercial terms, or network management practices in any way inconsistent with the transparency rule adopted” (Restoring Internet Freedom, 2017, p. 118). Suffice it to say ISPs were not delighted about the actions of states like California in trying to push for codified net neutrality laws.

In its Annual Report (filled out as Form 10-K) filed to the U.S. Securities and Exchange Commission (SEC) under the SEC Act of 1934, T-Mobile brought up a few complaints in the “Regulation” section about the negative effects that state and local government-issued laws could have on the delivery of BIAS (T-Mobile US, Inc., 2019). T-Mobile duly acknowledged that while the Communications Act of 1934 pre-empted state and local governments from governing “the entry of, or the rates charged by, wireless communication providers,” state and local governments could govern other “terms and conditions of wireless service, including billing, termination of service arrangements[,] and the imposition of early termination fees, advertising, network outages, the use of devices while driving, zoning[,] and land use” (p. 9). T-Mobile further acknowledged that the FCC 2017 Order’s pre-emption of states from imposing its own

net neutrality provisions was inconsistent with the FCC’s “federal deregulatory approach” (p. 9). The pending court challenges filed should determine if the state enactments were lawful.

At the same time, T-Mobile expressed concern about how separate state and local net neutrality requirements could “impose significant business costs and ... result in increased litigation costs and enforcement risks” (p. 9). Just as telecom attorney Marc Martin illustrated earlier, T-Mobile compared its regulatory restrictions with the airline industry. The Federal Aviation Administration (FAA) “regulate[s] the siting, lighting[,] and construction of transmitter towers and antennae,” where tower siting and construction were “subject to state and local zoning, as well as federal statutes regarding environmental and historic preservation” (p. 9). T-Mobile brought this comparative illustration up to make the claim that “the future costs to comply with all relevant regulations are to some extent unknown and changes to regulations, or the applicability of regulations, could result in higher operating and capital expenses, or reduced revenues in the future” (p. 9) Net neutrality opponents’ arguments, like the ones made by T-Mobile, against state law restrictions that attempted to defend net neutrality rules did not deter municipalities from also attempting to uphold net neutrality rules.

A group of mayors from around the U.S. sent a joint letter in support of net neutrality protections in their municipalities almost two-months after the 2017 Order was enacted. The letter was addressed to Senate Republican Majority Leader Mitch McConnell, Senate Democratic Minority Leader Chuck Schumer, House Democratic Minority Leader Nancy Pelosi, and Speaker of the U.S. Republican House Leader Paul Ryan. Representing over “43 million constituents,” the mayors wrote in support of the Resolution of Disapproval of the FCC’s 2017 Order and wrote to the FCC in July 2017 that a “full repeal would have a particularly negative impact on middle- and working-class families, while simultaneously restricting access to certain

types of online content and services to those who cannot afford to pay more” (*US Fed News*, 2018b). These few concerns were part of many concerns “shared and voiced in 13,000 pages of net neutrality complaints filed by millions of citizens and hundreds of community organizations and local leaders, which the FCC willfully ignored” (2018b). The mayors argued for a utilization of the Congressional Review Act to reverse the 2017 Order. One of the mayors who signed the letter was Democratic City of New York Mayor, Bill de Blasio.

Six-months after the joint letter was sent, City of New York Mayor de Blasio led a coalition of 28 municipalities in filing a brief against the FCC. The coalition urged the U.S. Court of Appeals for the DC Circuit to “strike down” the 2017 Order since it illegally stripped “cities of the tools they need to provide critical services, ... [turned ISPs] into gatekeepers of government websites, and ... [restricted] critical government functions, such as law enforcement and traffic management” (*US Fed News*, 2018a). Democratic New York City Corporation Counsel, Zachary Carter, voiced his concern that the 2017 Order improperly allowed ISPs “to become gatekeepers of [W]eb-based municipal communications that amici cities increasingly rely on to provide core government services” (2018a). Carter argued that the 2017 Order was unlawful since Congress did not authorize the FCC to give private ISP corporations “licence to impair cities’ ability to serve their residents reliably and promptly” (2018a). One major concern of the coalition was how ISPs could delay government services that relied on real-time transmissions of information to police, medics, firefighters, and emergency alerts, and the transmitting of local tax payments and public benefits registration. Transmission signals in smart cities technologies could be impacted, too, such as traffic management with parking enforcement and payment, navigation routes, and public transportation sensors (2018a). Moreover, Democratic New York City Councillor, Corey Johnson, said that “[a]ll New Yorkers are entitled

to a free [I]nternet to learn, exercise their freedom of speech[,] and access essential government services”” and that City Council ““will continue to fight for New Yorkers’ basic rights at a time when we unfortunately can no longer rely on our federal government”” (2018a). Net neutrality opponents were adamant to entrench net neutrality principles (or some form of the principles) into law instead of a discretionary approach by the FCC or patchwork legislation by state and local governments.

During a panel discussion hosted by Congressional Internet Caucus Academy (2017), TechFreedom (a non-profit and non-partisan technology think tank) President Berin Szóka said that laws must be decided by Congress first, then policy questions could follow. The FCC had no legal authority in this realm. Szóka suggested that a proper pathway forward would be to adopt a *law layered approach* that consisted of agencies and actors that hold broad powers to uphold antitrust and consumer protection laws. The agencies and actors that protected consumers’ rights and market competition practices would include: the FTC as the lead federal agency to enforce competition laws and consumer protection laws and holding corporations to any promises made, the DOJ as another enforcer of antitrust laws, and state attorneys general and private litigators as legal checks to consumer harms. The *law layered approach* first framed by Congress and carried forth by agencies and actors could set clear authoritative rules for BIAS delivery. In addition, Szóka made the prediction that if Republican FCC Chairman Ajit Pai was able to enact the 2017 Order without legislation, what would happen was that an FTC-led approach, along with the DOJ, state attorneys general, and private litigators, would effectively govern for the next 4–8 years. Then, the next Democratic FCC would re-reclassify and re-reinterpret the 2017 Order’s repeals as a granted authority “and we will be right back where we started” (2017). Szóka made it clear that without legislation or a clear U.S. Supreme Court decision, “we are heading for

limbo” (2017). Net neutrality advocates were also adamant to entrench net neutrality principles into law, but a case-by-case approach by the FTC, DOJ, SAG, or private litigators was not viewed as the proper pathway forward.

Public Knowledge (a non-profit public interest group that shaped open Internet policy), in its Electronic Comment Filing System (ECFS) reply comments, argued that “a purely case-by-case approach would be un-administrable and would likely leave many harms unaddressed” (Public Knowledge, 2017, p. 9). Instead, Public Knowledge advocated for a set of bright-line rules to protect competition and consumer harms against blocking, throttling, and paid prioritization of data. These bright-line rules would also be coupled with “a general conduct rule that can account for unusual circumstances” (p. 9). Bright-line rules and exceptions to the rules could reduce administrative costs to the legal system. Public Knowledge cited the words of Justice Stephen Breyer to support a point about entrenching bright-line rules with exceptions to the rules: “‘law is an administrative system [--] the effects of which depend upon the content of rules and precedents only as they are applied by judges and juries in courts and by lawyers advising their clients. Rules that seek to embody every economic complexity and qualification may well, through the vagaries of administration, prove counter-productive, undercutting the very economic ends they seek to serve’” (p. 9). In the end, both net neutrality advocates and opponents agreed that the lack of legislation or a clear U.S. Supreme Court decision, either as a layered economic enforcement approach or a set of bright-line rules with exceptions, would lead to repetitive, never-ending debates. Net neutrality had been, and still is, in legal and regulatory limbo.

6.3 – Chapter Summary & Discussion

6.3.1 – How do net neutrality advocates and opponents frame their discursive strategies?

One analogy was made by net neutrality opponents that compared what was happening to the FCC with the deregulation of the airline industry. Congress deregulated the airline industry in 1978 by eliminating the Civil Aeronautics Board and its rules governing airfare prices and barred states from implementing their own regulations. Moreover, the Federal Aviation Administration (FAA) regulated the lighting, siting, and construction of transmitter towers and antennae, where the latter two were subject to state and local zoning and federal statutes regarding environmental and historic preservation. Net neutrality opponents feared that changes to regulations carried out by state laws could result in higher operating and capital expenses and reduced revenues.

6.3.2 – In what ways do formal law frameworks (empirical and normative – ‘according to law as it is and ought to be’) govern data packets and the Web?

The FCC’s ECFS (Electronic Comment Filing System) comments debacle brought forth a few cases to obtain information about the alleged fraudulent activity and FCC agency computer network vulnerability. In the cases examined in Chapters 5 and 6, the plaintiffs submitted FOIA (Freedom of Information Act) requests for specific information about elements like Web server logs, IP (Internet Protocol) addresses, timestamps, public API (Application Programming Interface) keys used to submit online comments, User-Agent headers (i.e., information that identifies a user’s browser and operating system version) and email addresses. Plaintiffs wanted to know whether and how either John Oliver’s segment or bots who repeatedly posted fraudulent comments in bulk crashed the FCC server and site.

The FCC denied the requests mostly through FOIA exemptions. Commenters’ personally identifiable information (i.e., citing privacy protection with commenters’ IP addresses and emails) and the FCC’s website security and information technology architecture from Web logs were things to be protected under FOIA exemptions to requests. The FCC also invoked the

ability to redact by citing how the information was protected under a deliberative process privilege where draft information did not reflect the FCC's final decisions. For an agency that prided itself as a defender of the open Internet, the FCC closed off its doors to access things that reputable investigative news journalists requested.

In the end, one of the cases was dismissed with prejudice. Another case saw the court's motion for the FCC to withhold certain privileged emails and its server logs, but also motioned for the Plaintiff to obtain the rest of the email addresses. The last case saw the court declare that there was no substantial risk to privacy violations since commenters were provided with a privacy notice, that matching and sorting from API proxy server logs reflected an automated search (not the generation of a script), and that Plaintiffs were to receive IP addresses and User-Agent headers. The significance of pursuing the FCC's information was to understand whether and how fraud impacted the comments and question whether and how administrative agency rulemaking may be susceptible to corruption. All presiding judges in the three cases believed it was significant for the plaintiffs to seek public knowledge about the ECFS comments debacle.

Elsewhere, net neutrality advocates argued common carriage was a regulatory classification based on the function of the service. Common carriage had the technical functionality of being a conduit, and the commercial functionality of holding oneself out to serve the public. Common carriage as a regulatory classification did not relate to the number of ISPs, much less monopoly. By contrast, public utility was rooted in legal statutes based on state law from the grant of a franchise by government to the entity to provide service. Telephone companies have always been treated as both a common carrier and public utility, but FCC jurisdiction was based on common carriage status.

Net neutrality opponents argued that the FCC's NPRM (notice-of-proposed-rulemaking) falsely branded the 2015 Open Internet Order as a public utility-style classification with outmoded regulations fostering stodgy monopolies that failed to innovate or keep up with consumer demands. Net neutrality advocates pointed out that some net neutrality opponents conflated public utilities and common carriage with the issue of monopolies. The misperception could be crafted as: public utilities were associated with monopolies, so common carriage must also be associated with monopolies; therefore, there is no need for regulation if monopolies become destroyed. The monopoly theory misperception could lead one to conclude that there was no need for common carriage classification if ISP monopolies ceased to exist.

Net neutrality advocates argued that *telecommunication* (Title II) and *information* (Title I) services were mutually exclusive. The FCC's determination that BIAS (broadband Internet access service) was an *information* service necessarily precludes that it is a telecom service. The same ISP could provide both *telecommunication* and *information* services. However, it is difficult to separate the *telecommunication* and *information* services since major ISPs were vertically integrated providers of content as well as Internet access.

Net neutrality opponents referred to the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) case to claim that the FCC could read the word *offering* to mean a stand-alone offering of telecommunications, where messages were transmitted unadulterated by computer processing. The FCC could classify services as integrated finished services, such as Internet access, rather than as discrete components of each service. Therefore, the transmission of data components was integrated with the finished service to describe the two as an integrated offering. Net neutrality opponents argued that the 2015 Order treated BIAS as a pure transmission service, not both a transmission service and *information* service. Net neutrality

advocates argued that the transmission over the last mile of cable to a subscriber's computer merely serves as a conduit for the *information* services that have already been assembled by ISPs.

Regulatory classifications directly impacted how and by what agency regulation would be exercised over ISPs and the BIAS they provided. In 2014, AT&T appealed to the U.S. Supreme Court to avoid a lawsuit by the FTC over its throttling of unlimited data plans. AT&T's mobile and landline voice services classified AT&T as a *common carrier* with Title II status and thus allowed it to evade FTC regulation. Even though its BIAS was classified under Title I *information* service, AT&T relied on its Title II *common carrier* classification from its voice services to evade FTC regulation. The FTC also attempted to seek court approval to regulate any non-common carrier service (i.e., BIAS) even if that company was considered a common carrier (i.e., the voice services that made AT&T a common carrier). The FTC's regulatory defence of net neutrality principles (i.e., no throttling of data) failed to uphold net neutrality principles. The bargaining that took place here between AT&T, an interest group that has BIAS market power (see Lowi, 1979, p. 108), and the FTC, an agency that tried to administer net neutrality principles to promote a fair market, occurred in a few ways. AT&T bargained its regulatory immunity by arguing how its case could not be prosecuted due the very classification AT&T and other BIAS providers were fighting against. AT&T's mobile and landline voice services protected its practices of throttling unlimited data plans. Classificatory facts in referring to Titles I and II for common reference did not align with the FTC's governability (p. 108).

Turning to state-based authority in upholding net neutrality principles in 2017, the FCC needed express authorization by Congress to pre-empt state authority, yet Republican FCC Chairman Ajit Pai's FCC dictated what states could do in an area where it said it had no

authority itself. The *impossibility exception* applied (i.e., whether it is impossible for state regulations and the FCC decision that it cannot regulate to coexist) when the FCC took affirmative action, not when it said it lacked authority. The *impossibility exception* is a fact-intensive determination where the FCC could exercise narrow pre-emption authority of state laws and regulations that govern activities that are purely interstate or impossible to separate from intrastate activities. Maximizing individual state sovereignty through the use of laws, but with a common goal with the FCC to grow the Internet market economy (ten Oever, 2021, p. 56). Net neutrality advocates criticized the FCC's reliance on the *impossibility exception* as a legal basis for pre-empting state laws since the FCC did not provide adequate notice of its intent and basis.

There could be a congressional denial of power to the FCC in respects to charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier. The FCC is prohibited from regulating on intrastate matters even when done with the interstate matters and when facilities are physically inseparable. The Telecommunications Act of 1996 provisions were subject to the substantive and interpretative limitations of 47 U.S.C. § 152(b) and should not be read to confer upon the FCC jurisdiction over intrastate activities unless the provisions were so unambiguous to override the command. The *impossibility exception* would not apply when an ISP could determine that the start and end points of BIAS occur only within a state, and therefore made it possible to separate the interstate and intrastate aspects of the service. If there was a precedent for the federal government to call for the deregulation of an interstate commerce issue, it could still prevent states from filling the regulatory and jurisprudential gap. When the federal government lacks the authority to regulate, it cannot pre-empt states from regulating or enacting laws.

The DOJ said that the State of California's protections over net neutrality actions unlawfully imposed burdens on the federal government's deregulatory approach to the Internet. States did not govern interstate commerce according to the Constitution. Due to the State of California's size and impact on the Internet market economy, BIAS laws were dictated for neighbouring jurisdictions that did not follow the same or similar net neutrality rules, thus creating regulatory uncertainty and instability. The State of California's legislation intended to countermand and undermine federal rules by issuing net neutrality rules on ISPs that were expressly repealed in the 2017 Order. These repeals included the relinquishing of the FCC's own investigative authority over ISPs' practices and the deeming of BIAS as an *information* instead of a *telecommunications* service. The now-repealed 2015 Order had prohibited blocking, throttling, and paid prioritization of data packets.

The State of California's legislation was pre-empted under the Supremacy Clause of the U.S. Constitution for governing far beyond state lines. Both the Supremacy and Commerce Clauses protected ISPs from a patchwork of inconsistent regulations that are unduly burdensome and impossible to comply with as a practical matter. Net neutrality opponents were fearful that while the Communications Act of 1934 pre-empted state and local governments from governing the entry of, or the rates charged by, wireless communication providers, state and local governments could govern other terms and conditions of wireless service, including billing, termination of service arrangements, and the imposition of early termination fees, advertising, network outages, the use of devices while driving, zoning, and land use. The future costs to comply with all relevant regulations are to some extent unknown and changes to regulations, or the applicability of regulations, could result in higher operating and capital expenses, or reduced revenues in the future. Most net neutrality opponents take a free-market approach that includes

minimal state government intervention, flexibility and innovativeness of the private sector, and link light-touch regulation to innovation. Net neutrality opponents were essentially fearful that the State of California was going to financially dominate this BIAS commerce space through its own licensed terms and conditions. The intent would be to bargain back to primarily ISPs this monopolized space (see Lowi, 1979, p. 278).

The notion that Congress delegates some of its lawmaking authority to the executive branch, for which the executive branch delegates some of its authority to agencies like the FCC and FTC, is what Lowi (1979, p. 273–274) describes as “administrative legislation.” The FCC said it had the legal authority to pre-empt inconsistent state and local laws on three grounds: the *impossibility exception*, the federal policy of nonregulation for *information* services, and the 47 U.S.C. § 160(e)’s forbearance provision. First, the U.S. Supreme Court recognized that under the *impossibility exception*, the FCC may pre-empt state law when (1) it is impossible or impracticable to regulate the intrastate aspects of a service without affecting interstate communications and (2) the Commission determines that such regulation would interfere with federal regulatory objectives. Internet access is a jurisdictionally interstate service (which the 2015 Order even recognized) since Internet traffic could involve accessing interstate or foreign websites and that the FCC recognized BIAS as an interstate *information* service.

Second, when Congress adopted the FCC’s regulatory framework and its deregulatory approach to *information* services, Congress embraced the FCC’s policy of pre-empting state laws that interfered with its federal policy of nonregulation. Third, the 47 U.S.C. § 160(e)’s forbearance determinations pre-empted contrary state regulatory or legal efforts. The FCC argued that Congress never intended for state or local governments to be able to countermand a federal policy of nonregulation or to possess any greater authority over the federal government.

(a) No state or local regulation and law may prohibit or have the effect of prohibiting the ability of any entity to provide interstate or intrastate telecommunications service and (b) states can impose requirements to preserve and advance universal service, protect the public safety and welfare, ensure the quality of telecommunications services, and safeguard consumers' rights. If the FCC determined a violation of (a) or (b) above occurred after its NPRM, the FCC can pre-empt the enforcement of that statute, regulation, or legal requirement.

According to net neutrality advocates, a case-by-case approach to net neutrality violations would be un-administrable and would leave many harms unaddressed. A set of bright-line rules to protect competition and consumer harms could be coupled with a general conduct rule to account for unusual circumstances, and thereby reduce administrative costs to the legal system. Law is an administrative system, the effects of which depend upon the content of rules and precedents only as they are applied by judges and juries in courts and by lawyers advising their clients. Rules that seek to embody every economic complexity and qualification may be counter-productive, undercutting economic ends. Rules must be promulgated across the population with “prospective application” and have “generality, equality, and certainty” (Bayamlioğlu & Leenes, 2018, p. 304; see also Tamanaha, 2004) and be realistic in enforcement (Fuller, 1969). Under Law 1.0, the “integrity and internal consistency of legal doctrine” is upheld where new technologies fall under existing “legal concepts, categories, and classifications” that employ ex-post “correction and compensation” (Brownsword, 2020, p. 32).

Net neutrality advocates argued that disclosures by ISPs in their terms of service agreements was no remedy if there is no place for a party to seek relief. Antitrust law was not designed to protect U.S. norms such as free speech. Herein lies the issue formulated by Geist (2001, p. 1354) when he refers to the substantive layer as courts applying substantive laws to

uphold rights and obligations through differing norms and values. Lawsuits can generally take a long time to resolve if an ISP is accused of harming consumers or competitors. The FCC follows a “rule-of-law model” (Weiser, 2008, p. 318), but still enforces rights in the absence of laws (Chong, 2007, p. 152). According to net neutrality opponents, the benefits of antitrust laws were: (1) the rule of reason allows a balancing of pro-competitive benefits and anti-competitive harms; (2) the case-by-case nature allows for the regulatory humility needed when dealing with the dynamic Internet; (3) the antitrust laws focus on protecting competition; and (4) the same laws apply to all Internet actors. Both FTC-led antitrust and consumer protection laws provide a range of consumer choice and allow competitors to freely enter and compete in the Internet market economy (Cherry, 2008, p. 960). This instrumentalist approach attempts to foster solutions to come from actors and institutions and that technology is value-neutral and fuelled by commercial innovation (Carr, 2016, p. 192 & p. 159).

6.3.3 – In what ways do formal regulation frameworks (empirical and normative – ‘according to regulation as it is and ought to be’) govern data packets and the Web?

The 2017 FCC majority wished to return authoritative power back to the FTC under Title I because of its experience overseeing data security and privacy practices across numerous sectors. The FTC has authority to oversee the trade practices across market sectors under Section 5 of the Federal Trade Commission Act, which prohibits unfair methods of competition and deceptive trade practices. The FTC rarely issues prescriptive rules unless directed by Congress, and instead examines factual circumstances on a case-by-case basis. Net neutrality advocates argued that the case-by-case adjudication process was inconsistent and lacked certainty. Regulatory-instrumentalists willingly enact customized “effective and efficient” legal responses to technologies (Brownsword, 2020, p. 33). The FTC could only exercise its authority through

litigation after ISP harms occurred, rendering long wait times for legal outcomes. Lawsuits can take a long time to resolve if an ISP is accused of harming consumers or competitors, as evident in past cases. Consumer harms were unlikely to reach the attention of the FTC since its standard is that consumer injury must be substantial to make a claim under the FTC Act. Congress must ask whether it should implement non-discrimination rules or wait for antitrust suits to unfold.

Net neutrality advocates anticipated that as a Republican FCC Chairman, Ajit Pai would drive up prices for Internet access, give ISPs the authority to block, throttle, and prioritize sites that did not match ISPs' political perspectives, and stifle innovation by suppressing competition. The first antitrust law was created in 1890 when Senator John Sherman responded to the outrage over the sheer economic and political power of the *trusts* (i.e., a connected group of corporate enterprises that consolidated market power). In 1901, President Theodore Roosevelt used the Sherman Antitrust Act to go after the Northern Securities Company, a giant railroad trust run by J.P. Morgan and ordered the company to dismantle. Another example was how in 1911, J.D. Rockefeller's Standard Oil Trust was broken up, but the U.S. Supreme Court's decision altered the Sherman Antitrust Act by saying that monopolistic restraints of trade were objectionable if they were unreasonable, and that courts should determine outcomes.

During the presidential election in 1912, President Roosevelt campaigned on his promise to allow some concentration of industries where there were economic efficiencies due to large scale and have experts regulate these large corporations. But Woodrow Wilson, who won the election, said that regulation would be ineffective and thought all monopolies should be broken up. Republican Solicitor General Robert Bork argued that antitrust legal intervention raised prices by protecting weak enterprises from competition. Competition in the market should be defended, not individual enterprises. Vertical corporate growth through mergers and expanding

market sector shares and giving consumers options through price discrimination would foster consumer welfare -- the primary goal of antitrust law. However, net neutrality advocates pointed out that information and ideas are the most valuable forms of property, and that the concentration on scale in the high-tech industry is evidence of a decline in competition, especially through patents, standardized platforms, lawyers, and lobbyists.

The FCC's 2017 Draft Order relinquished the FCC's own authority. The source of authority should be market forces, not heavy-handed government intervention, where intervention should only come when market forces fail (Carr, 2016, p. 159). Since BIAS was classified as an *information* service, the FCC lacked authority to impose any conduct rules on ISPs; thus, the FCC could not assert that it had a policy goal of pre-empting state efforts. The FCC disavowed Title II authority over ISPs, so the FCC's pre-emption order could only be rooted in Title I ancillary authority, which in turn must be based on some separate statutorily mandated responsibility. This was reminiscent of how the FCC's 2008 Comcast Order used Title I to condemn Comcast for blocking applications and deemed the act unlawful since it violated the FCC's Broadband Policy Statement. However, the D.C. Circuit threw out the Comcast Order on the basis that the FCC had no authoritative power to invoke such a ruling under the reign of Title I classification (Nuechterlein & Weiser, 2013, pp. 199–200). In response, the FCC implemented its 2010 Open Internet Order to issue net neutrality protections against harmful BIAS practices by ISPs. But when Verizon challenged the 2010 Order in 2014, the D.C. Circuit found in part that the FCC's classification of ISPs under Title I exempted them from treatment as common carriers. The Communications Act of 1934 also prohibited the FCC from regulating ISPs as common carriers (Terry & Memmel, 2020, pp. 171–172). When Congress did not intend to displace state law, states had policing powers to protect consumers from harmful business

practices. States attempted to remove restricted modes of operation that the FCC assumes it has over the BIAS (broadband Internet access services) industry. The FCC's 'operating system' can be altered, and new ways of governing data packets and the Web can be used, such as through state regulation.

For net neutrality opponents, a *law layered approach* consisted of many agencies and actors that hold broad powers to uphold antitrust and consumer protection laws. The agencies and actors that protected consumers' rights and market competition practices would include: the FTC as the lead federal agency to enforce competition laws and consumer protection laws and holding corporations to any promises made, the DOJ as another enforcer of antitrust laws, and state attorneys general and private litigators as legal checks to consumer harms. The U.S. political system is about delegating authority with legislation offloading to regulatory agencies. The delegation of power is when the legislature allows an administrative agency to act on its behalf and is the "legal basis for rendering a statute tentative enough" to provide social order (Lowi, 1979, pp. 92–93). That administrative agency carries out the "intent of Congress" via the Administrative Procedures Act, backed by the Supreme Court (p. 303). The agencies and actors define jurisdictional rights to intervene and set their own authoritative rules (p. 108). Once the state takes financial control of the market, its agencies can bargain with interest groups to participate (p. 278). The *law layered approach* first framed by Congress and carried forth by various agencies and actors could set clear authoritative rules for BIAS delivery. Without legislation or a clear U.S. Supreme Court decision, we were heading for regulatory limbo.

This idea of a *law layered approach* reflects Koops' (2008, p. 161) idea about polycentric governance where regulation combines vertical public governance locally to supranationally with horizontal private non-state actors and institutions. Weber's (1978) *formal rationality* would still

be applicable here in providing predictability, calculability, and stability where law applies internally-generated rules across similar cases. In Law 2.0, regulatory-instrumentalists ask whether rules align with emerging technologies (Brownsword, 2020, p. 21). Regulatory objectives must be consistent with legal doctrine. Policies take precedence over general principles of jurisprudence. Risk management is about ex-ante prevention. The answer to regulatory intervention failure is more regulatory intervention (p. 33). The intent of including so many different agencies and actors to protect consumers' rights and market competition practices is to alter behaviour against standards (Black, 2005, p. 1; p. 11) and mitigate harm within the social exchange of ideas and interactions across the Web (Yeung, 2015, p. 5). In the end, regulation ought to align with the pace of technological innovation and be "fit for purpose" on impacting conduct (Brownsword, 2012, p. 254).

6.3.4 – In what ways do non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web?

Presiding judges in the *Mozilla Corp. v. FCC* (2019) case asked why telephony and BIAS (broadband Internet access service) were not governed under the same Title II classification. Net neutrality advocates argued that users could not make phone calls without running compatible software; thus, mobile voice service should be deemed a *telecommunication* service.

Telecommunication services refers to the "transmission between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received" (Telecommunications Act of 1996, U.S. Code 47 Sec. 153). So, how did telephony differ from the Title I classification attributed to BIAS since one could retrieve and share information over the telephone?

Net neutrality opponents argued that an *information* service always and necessarily acts on the information. According to Telecommunications Act of 1996 (U.S. Code 47 Sec. 153), *information* services means that the provider offers the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.” The FCC treated DNS (Domain Name System) look-up and caching as a precondition for classifying BIAS as an *information* service. The ICANN (Internet Corporation for Assigned Names and Numbers) derived from the U.S. government’s decision to allow a U.S.-based non-profit corporation to assume “policy and technical management of DNS” for the rest of the world (ICANN, 2022).

DNS consisted of matching names to numbers of a website and caching consisted of storing data to load future requests faster and reduce latency. In the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) ruling, DNS and caching were integrated information-processing capabilities and were part and parcel of BIAS. Without DNS, a user would be unable to access a site by typing its name, and caching stored third-party content (information) on local servers. Net neutrality opponents argued that protocols such as DNS are controlling logics and rules (Stalder, 2006, pp. 134–135). Law 3.0 promulgates non-normative measurements of what is possible and impossible to achieve technologically (Brownsword, 2016, p. 102).

Net neutrality opponents believe that technology is primarily driven by the private sector to reach new innovative heights (Carr, 2016, p. 159). Net neutrality opponents were worried that state and local laws could impede interstate communication since it would require a patchwork

of separate and conflicting requirements. The Internet's commercial success partly lies in the "stable legal environment" fostered by state governments and public protections (Goldsmith & Wu, 2006, p. 118).

6.3.5 – How does Internet governance reflect U.S. norms, values, and rights in ways that support the expansion of U.S. economic power?

Net neutrality advocates argued that U.S. consumer markets had become monopolized by a small number of corporations for the pursuit of power. Net neutrality advocates argued that antitrust law was created in 1890 to help deconstruct the economic and political power trusts (a connected group of corporate enterprises that consolidated market power) held from their concentration in multiple industries. Around this time, one of the contentions in the presidential debates centred on breaking up all monopolies. Antitrust legal intervention was argued as a source of rising prices because weak enterprises were being protected from competition; competition should be defended at all costs, not individual enterprises. Bargaining is a variant of competition, and rules set by political institutions can convert conflict between groups into competition (Lowi, 1979, p. 37). Monopolies created market efficiencies that brought lower prices because they gave users more options with price discrimination. Most net neutrality opponents took this free market approach, where net neutrality principles were perceived as overbearing to the ICT (information and communications technology) market. Here, the source of authority was the market, where state government intervention should only come into play when markets fail (Carr, 2016, p. 159). However, as Lowi (1979, p. 278) argued, competitive markets only exist by the state conquering of markets through finances, licensing (exclusivity), and bearing risk.

The other side of this antitrust debate argued that the concentration on scale in the high-tech industry shows a decline in competition, especially with creating patents, standardizing platforms, litigating against rivals, and gaining support through lobbyists. This enclosing of the innovation commons created barriers for competitors. Net neutrality advocates argued that preserving open access to participate in content creation, application development, and media consumption, for example, was an essential pillar of the innovation commons (Wu, 2004, p. 79; Krämer & Wiewiorra, 2009, p. 2). Net neutrality advocates prescribed a non-hierarchical structure of access to the innovation commons, which is indicative of technology having a determined path and intrinsic value (Carr, 2016, p. 159). Open access to the innovation commons is a promotion of norms, values, and ideologies that spawn from interest groups in Congress (Lowi, 1979, pp. 90–91).

Chapter 7 – Understanding the Governance of Data Packets & the Web

7.1 – Connecting Discursive Strategies, Formal Law & Regulation Frameworks, Non-Normative Frameworks, & U.S. Economic Power

The five NVivo datasets coded, categorized, and thematized were the 2017 Order, the FCC's ECFS (Electronic Comment Filing System) attachment files, videos from YouTube, media reports, and law documents. The intention behind choosing these five mediums was to provide a wide range of social and legal and regulatory visages. Drawing from social and legal and regulatory commentary was an attempt to see how socio-legal studies could contribute to the net neutrality debates. Net neutrality advocates and opponents discussed social conditions, such as the digital divide, openness and transparency, throttling, free speech, walled gardens, blocking, discrimination, 5G, paid prioritization, and attacking political parties. Net neutrality advocates and opponents also discussed legal and regulatory conditions that contravened technological conditions, such as state government oversight, current legal proceedings, Titles I and II, the FTC, market competition, financial or infrastructure investments, jurisdiction (i.e., federal, state, and municipal/county), proposed and existing laws, and the FCC's ECFS.

I pointed throughout each of the empirical chapters how the net neutrality debates reflected the partisan divide between Democrats and Republicans, where the former held the net neutrality advocates position and the latter held the net neutrality opponents position. The continued lifespan of the net neutrality debates climaxed during Republican President Donald Trump's presidency. The Trump administration sought to reverse many Democratic President Barack Obama-era rules. The politically partisan backgrounds of net neutrality advocate and opponent actors and institutions/organizations were identified to separate the ideologies categorized across the four themes of economics, technology, politics, and law and regulation.

Chapter 7 gives analytical insight into how net neutrality advocates and opponents understand the governance of data packets and the Web based on the three research aims identified in Chapter 1 and cast across the economics, technology, politics, and law and regulation themes. The first research aim is to identify and describe net neutrality in light of socio-legal narratives and stories through the construction and representation of ideas, concepts, issues, and arguments related to the governance of data packets and the Web. A narratology focuses on the production and reception of stories and communicating events whose plots are intended to bring arguments for and against net neutrality to realization, especially through discursive strategies to convince audiences to believe in discourses.

The second research aim is to examine how formal law and regulation frameworks (i.e., empirical and normative – ‘according to law and regulation as they are and ought to be’) and non-normative frameworks (i.e., technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web. Brownsword’s (2012, 2016, 2019, 2020) Law 1.0 (coherentists), Law 2.0 (regulatory-instrumentalists), and Law 3.0 (technocrats) frameworks help to understand whether and to what extent formal law and regulation frameworks or non-normative frameworks are more dominant over the other or if both can be combined. The formal law and regulation framework, which encompasses Law 1.0 and Law 2.0, signals what acts are “prohibited, permitted, or required” by empirical and normative judgements (Brownsword, 2016, p. 102). The non-normative framework, which is Law 3.0, indicates what acts are possible and impossible and what can and cannot be done through technological management and solutions.

The third research aim explores how formal law and regulation frameworks and non-normative frameworks, or Internet governance more broadly, reflect U.S. norms, values, and

rights in ways that support the expansion of U.S. economic power. Chapter 7 is thus a three-part analysis organized into five sections that explores (i) how net neutrality advocates and opponents frame discursive strategies, (ii) in what ways formal law and regulation frameworks and non-normative frameworks govern data packets and the Web, and (iii) how Internet governance reflects U.S. norms, values, and rights in support of expanding U.S. economic power.

Section 7.1.1 will examine the research question, how do net neutrality advocates and opponents frame their discursive strategies? I will examine how net neutrality advocates and opponents mischaracterize history, use analogies and popular cultural references to convince their audiences in arguments, and clash with rights-based language.

Section 7.1.2 will explore the research question, in what ways do formal law frameworks (empirical and normative – ‘according to law and regulation as they are and ought to be’) govern data packets and the Web? I will explore how net neutrality advocates and opponents evaluate antitrust laws, understand the relationship between data packets and jurisdiction, and make sense of the FCC’s ECFS process.

Section 7.1.3 will assess the research question, in what ways do formal regulation frameworks (empirical and normative – ‘according to law and regulation as they are and ought to be’) govern data packets and the Web? I will assess how net neutrality advocates and opponents debate over whether the FCC or the FTC are the more effective governors of data packets and the Web and whether regulation is necessary for the functioning of data packets and the Web.

Section 7.1.4 will evaluate the research question, in what ways do non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web? I will evaluate how net neutrality advocates and opponents contest how data packets control networks, how data packets and

jurisdiction (mis)align, how Titles I and II define what is possible in governing data packets and the Web, and how terms of service agreements attempt to secure law and regulatory coverage.

Section 7.1.5 will consider the research question, how does Internet governance reflect U.S. norms, values, and rights in ways that support the expansion of U.S. economic power? I will consider how net neutrality advocates and opponents question the degree to which state governments should intervene in the corporate pursuit of profits and how walled gardens govern data packets and the Web.

7.1.1 – How Net Neutrality Advocates & Opponents Framed Discursive Strategies

Section 7.1.1 will examine how net neutrality advocates and opponents framed their discursive strategies. This section will examine how net neutrality advocates and opponents mischaracterize history, use analogies and popular cultural references to convince their audiences, and clash with rights-based language. First, net neutrality advocates call out the mischaracterizing of history about how the Internet was never an oasis of deregulation and how the net neutrality debates do not align with the Fairness Doctrine.

Second, the use of analogies and popular cultural references by net neutrality advocates and opponents show how ideas are privileged. Net neutrality advocates use analogies and popular cultural references to criticize the FCC's allowance of paid prioritization and to criticize ISPs to explain: market dominance; quality of service; tiered pricing, blocking, and throttling services; setting fair competition parameters; delivering data packets; broadband becoming edge providers; corporate and political collusion; and changing the data packet structure. Net neutrality opponents use analogies and popular cultural references to criticize the FCC's regulatory capriciousness to explain: the Democratic Obama Administration's direct governance over the FCC; the FCC's tribal domination over ISPs; how online experience would not change

after the 2017 Order took effect; the overzealous authority the FCC had over ISPs; the superiority of the FTC in comparison; and a call for deregulation.

Third, the clash of rights between the rights of citizens or users and the rights of ISPs are examined. Net neutrality advocates and opponents fight over how net neutrality could shape the digital divide in the U.S. Net neutrality advocates argue for the rights of low-income and racialized citizens to be upheld, while net neutrality opponents argue for the rights of private companies to conduct their business as they wish instead of being under the thumb of regulatory intervention.

7.1.1.1 – Mischaracterizing History

Net neutrality advocates call out the mischaracterizing of history about how the Internet was never an oasis of deregulation and how the net neutrality debates do not align with the Fairness Doctrine in this first subsection. There was a Russian adage that went like this: “the future is certain; the past is unpredictable.” Who is to say that which has been recorded as historical fact truly occurred? The past could be altered and recounted in a narrow way to fit the communicator’s narrative. Details of what truly occurred could be omitted, forgotten, embellished, created out of thin air, or misrepresented. This was to say that the author’s filter could misconstrue what happened in the past, securing the fate and future of an actor, their actions, and decisions. We observe and accept what we are told.

Net neutrality advocates revealed that the Internet was never an oasis of deregulation since its inception. Packet-switching networks were under Title II (*common carriers* providing *telecommunication services*) classification where computers and common carrier services were interdependent. Even the DSL (digital subscriber line) service customers widely used ran as a common carrier service until 2005, with some wireline carriers today offering common carrier

service. In 1998, the FCC ruled that packet-switching was a transmission technology where ISPs could provide information services but had to offer competitors non-discriminatory access to network elements and services for data and voice. Regulatory and court rulings on defining *information* or *telecommunication* service mattered since classificatory rulings determined whether and how the FCC regulated.

Another instance of net neutrality advocates calling out net neutrality opponents for mischaracterizing history was before Donald Trump became U.S. President. Trump posted on Twitter in 2014 that Democratic U.S. President Barack Obama was attacking the Internet and likened net neutrality to the Fairness Doctrine. Net neutrality would apparently target conservative media. This tweet was hastily written to portray net neutrality's principles as something they were not. However, the doctrine, like net neutrality, promised to present content in a fair non-partisan manner to all sides of a debate. Net neutrality promised to deter ISPs from blocking, throttling, and prioritizing conservative and democratic content-based data packets. Data packets were transmitted and reassembled to the user in the form of digestible content, where nearly any content of any calibre, no matter how far-right or far-left, could be found with search techniques and a browser. To politicize data packets, or the fragmented data that eventually made up fully-formed content, was another site of attack by net neutrality opponents. In reality, the FCC's Fairness Doctrine was abolished in 1987, but there were calls across many state governments to reinstate it. However, President Obama signed an executive order in August 2011 to formally revoke it since he saw it as an unnecessary regulation, followed by the FCC's vote to remove the rule that implemented it (Bolie, 2011).

7.1.1.2 – Analogies & Popular Cultural References

The use of analogies and popular cultural references by net neutrality advocates and opponents show how ideas are privileged in this second subsection. Net neutrality advocates use analogies and popular cultural references to criticize the FCC's allowance of paid prioritization and to criticize ISPs to explain: market dominance; quality of service; tiered pricing, blocking, and throttling services; setting fair competition parameters; delivering data packets; broadband becoming edge providers; corporate and political collusion; and changing the data packet structure. Net neutrality opponents use analogies and popular cultural references to criticize the FCC's regulatory capriciousness to explain: the Democratic Obama Administration's direct governance over the FCC; the FCC's tribal domination over ISPs; how online experience would not change after the 2017 Order took effect; the overzealous authority the FCC had over ISPs; the superiority of the FTC in comparison; and a call for deregulation.

Donald Trump's analogy of net neutrality to the FCC's Fairness Doctrine was one of a harbour wave of analogies used by both net neutrality advocates and opponents across Chapters 3–6. Analogies and popular cultural references helped us understand what interests and ideas were privileged. Analogies and popular cultural references were used to understand the information being communicated to an audience who was assumed otherwise inept to comprehend such seemingly complex information. An attribution could have been made to show how comparable real-life situations were allowed to transpire, alluding to a double standard. Or an attribution to negative consequences comparable to real-life situations could have been made to show what would happen if the alternative perspective was adopted. Analogies and popular cultural references that centred on equality with things like data packet speed clashed with ones that centred on prioritizing things like data packets.

Many sound bites in the NVivo datasets in video clips, audio clips, letters, memos, legal case presentations, and investigative news reporter pieces were presented in a way to itemize discussion points without fully unpacking the points. Analogies, while sometimes considered useful to help the listener understand by referencing points of common examples, sometimes lacked details. The fact that there was no way to measure the effects of using analogies and popular cultural references on listeners made it especially difficult to assess the impact they had in advancing convincing arguments. The following showcases what analogies and popular cultural references were used to privilege certain ideas.

Net neutrality advocates criticized the FCC by allowing paid prioritization to persist as a means to bypass (hot-wire) the proper channels for fair competition over the Web. Aside from this one analogy targeting the FCC, the recurring target net neutrality advocates aimed their analogies and popular cultural references at were ISPs. Targeting ISPs was key to explaining market dominance; quality of service; tiered pricing, blocking, and throttling different services; setting fair competition parameters; delivering data packets; broadband becoming edge providers; corporate and political collusion; and changing the data packet structure.

ISPs fostered a pool of market dominance just like the television cable companies did in an earlier era. As dominant as ESPN was in the sports world of online streaming, smaller sports streaming services should have equal opportunity in speedy delivery of content with no latency. Larger ISPs that had more BIAS (broadband Internet access service) coverage across the U.S. naturally connected to more homes and businesses than smaller ISPs, so what can be done to ameliorate such advantages? As net neutrality opponents pointed out, competition is not a crime. What net neutrality advocates were arguing for was to allow ISPs of all sizes the chance to offer BIAS on a level playing field. But if larger ISPs are in more markets and have the resources and

commercialization (advertising) to sell their services, not much can be done to level the playing field. Corporations may start at higher advantage points when laws and regulations become implemented. How could different ISPs compete on a level playing field when the players are so different?

Consumers get what they pay for, which is why the quality of service comparison to an airline industry's class seating amenities analogy does not hold water. There will always be low, medium, and high-tiered services and items to choose from, and it is up to the consumer to decide to upgrade or not. Similarly, consumers were furious when Burger King's Whopper burgers or bartenders serving beer were made/poured, packaged/offered in a glass, and sold to customers at faster or slower times based on how much they were willing to pay. While all websites should have been accessible to users, ISPs should also have the ability to apply tiered pricing to customers willing to pay for faster service. Net neutrality opponents argued that a convenience store owner has the right to offer discounts on products if the wholesaler offers the product to be purchased at a discounted rate. When a shopper enters the convenience store, the owner could place the product on prime shelving real estate and offer a discount over competing products. What would be immoral or illegal if an ISP offered a discount to online streaming platforms if consumers locked into a three-year BIAS deal? Net neutrality advocates still believed that all websites should be accessible to consumers where ISPs treat each data packet equally and consistently deliver each data packet without being blocked. John Oliver used comedic relief to show the absurdity of T-Mobile blocking Google Wallet in favour of its own 'ISIS Mobile Wallet.'

Net neutrality advocates also compared ISPs to Uber drivers (instead of pizza delivery drivers) since they had a method for delivering the food and keeping it warm, but were not the

chef nor content creators. We know that today this is not the case since ISPs' sister and subsidiary companies are exclusively hosting online content on their streaming platforms they own and operate or have a deal with to host said content. ISPs have a special interest in how data packets and the Web are governed since the very content they are developing for their consumers must be delivered fast, secured, and unblocked. Moreover, net neutrality advocates believed that the road (i.e., broadband) became a hotel (edge provider) since the builder constructed rest stops where drivers could find amenities. Net neutrality opponents did not accept this analogy because users had to remain on broadband to enjoy edge providers' offerings. As well, broadband was not a road since it allowed users to find the best hotel, store belongings, retrieve them, and become their own hotel with *information* processing capabilities, not *telecommunication* capabilities.

Broadband and edge providers are different, but not mutually exclusive. Edge providers are hosted on broadband, just as hotels are planted on land connected by roads. There would be limited reasons as to why someone would access broadband if edge providers did not exist, and there would be no way to access edge providers without broadband. Both entities rely on each other for consumers to pay into their businesses. Hotels can certainly be owned and operated by the road builder and can be placed at convenient locations and offer a pleasant driving experience as an entryway into the hotel grounds. But sometimes these roads are not so accessible for all consumers nor are they conveniently and pleasantly built for hotel competitors. This idea circles back to net neutrality advocates' call for fair and open access. Net neutrality advocates were fearful that there might be corporate and political collusion and controlling the narrative through content. This was an example of net neutrality advocates attempting to conjure an image of corporate and political collusion initiated by ISPs, when the image was left as just

that, an image. This image was one-dimensional and trite in complaining about evil corporate takeovers and colluding with political entities.

Net neutrality advocates reassured that changing the data packet structure did not alter the form of information itself. If one removed a handwritten letter from one envelope to another, the content did not change. Customers did not care if ISPs repackaged the data using other protocols if the data remained unchanged. Nevertheless, net neutrality opponents were determined to inflate the importance of economics over laws and regulations. Laws and regulations had no business editorializing how data packets were delivered by ISPs, just as laws and regulations did not editorialize ESPN's privileged content. Like emergency and medical vehicles and calls, terrorism, and non-profits communicating public policies, data packets should be prioritized. Rewarding loyal customers with discounts based on age, coupons, payment method, loyalty cards, and time of use were standard offerings in any competitive market.

Net neutrality opponents' recurring target aimed at for their analogies and popular cultural references were the FCC's regulatory capriciousness. Targeting the FCC as an unnecessary regulatory agency was done so to explain the Democratic Obama Administration's direct governance over the FCC; the FCC's tribal domination over ISPs; how online experience would not change after the 2017 Order took effect; the overzealous authority the FCC had over ISPs; the superiority of the FTC in comparison; and a call for deregulation. The Obama Administration ruled over the FCC by declaring winners and losers like a 'drunk 1920s cop.' This was a puzzling accusation given that Republican FCC members (including the Chairman) said that the FCC's ECFS website does not count the tallies of comments and then act in favour of that winning side. In fact, Republican FCC Chairman Pai said that the FCC could have proceeded with a declaratory ruling in that what the previous FCC did was null and void as a

matter of law and proceed with its Order. Law and regulation could have been used as a reset button for the FCC to apply its governance, even though it did not. Net neutrality opponents believed that Title II classification fostered tribal domination of ISPs over consumers fighting to the death, as if both ISPs and consumers were locked in a *Mad Max* 'Thunderdome' metal cage. Partisan divide matched political parties against each other.

One discursive strategy that failed to be comedic by net neutrality opponents was when a chain of popular cultural references were shown as a video about what could still be done online after the 2017 Order came into effect, namely posting on social media, shopping, binge-watching media, being a part of fandom circles, and sharing memes. Online communities suffer from short-term memory loss; many references made to things that were popular in December 2017 are not popular today. The Web hosts trending content that is liked and shared by millions of consumers, but eventually whisks away in an endless scroll of new content, or content that is new in upload date but old in retracing trending posts that came before it. Timing is important in comedy to sequentially land the laugh that a set up and punch-line delivery aimed to land on. The timing of this comedic video was poor and highly disliked by the YouTube community.

Another failed discursive strategy was to explain through a scripted question-and-answer interview with Verizon's CEO about the overzealous authoritative power the FCC has under Title II regulation. Verizon was worried that the FCC's unchecked, tyrannical authority would control how ISPs conducted their own services, user interactions, and price controls. The analogy was about homeownership and mayoral authority over prohibiting actors from entering front walkways. If homeowners (ISPs) prohibited the letter carrier (edge providers) from entering their walkways, the mayor (FCC) could pass a rule so no one could prohibit letter carriers (edge providers) from doing so, but would require homeowners (ISPs) to give the mayor (FCC)

complete authority over properties. The analogy is misguided since, do not forget, large ISPs had a monopoly of BIAS that connected to homes. The Internet spanned across the world on routers. The scale that was painted was miniature and unrealistic.

The FTC, instead of the FCC, was promoted as the better agency to protect consumers and was dubbed the premier consumer protection cop. The FTC could take a less intervening role and allow the Internet market economy to self-regulate. The deregulation of the airline industry was something net neutrality opponents wanted to have happen in the BIAS industry. Congress eliminated the Civil Aeronautics Board and its rules governing airfare prices and barred states from implementing their own regulations. Regulations carried out by state laws could result in higher operating and capital expenses and reduced revenues for ISPs. Yet, there is a misalignment in comparing one market to another when predicting how deregulation would bode for industry players and consumers. To allude that deregulation of the BIAS industry could remove price controls on ISPs and bar states from adopting their own net neutrality principles is a difficult transference of what happened to the elimination of the Civil Aeronautics Board.

The point of analogies and popular cultural references was to get the audience to agree with the communicator's perspective. Some compelling, colourful examples were given, but most were said in hopes for the audience to immediately recognize the connections to positive or negative effects net neutrality principles had on governing data packets and the Web. Net neutrality advocates and opponents produced a narrative strategy centred on rights-based arguments afforded to all U.S. citizens.

7.1.1.3 – Clash of Rights

The clash of rights between the rights of citizens or users and the rights of ISPs are examined in this third subsection. Net neutrality advocates and opponents fight over how net

neutrality could shape the digital divide in the U.S. Net neutrality advocates argue for the rights of low-income and racialized citizens to be upheld, while net neutrality opponents argue for the rights of private companies to conduct their business as they wish instead of being under the thumb of regulatory intervention.

The clash of rights between the rights of citizens or users and the rights of ISPs was often debated. It is worth noting that this rights-based arguments strategy is not unique to this policy area but could be used in any subject area in which debate and contestation arise. Net neutrality advocates had much more to say than net neutrality opponents when it came to rights for citizens, especially low-income and racialized communities. Net neutrality opponents either did not directly respond to net neutrality advocates' arguments or their brief response defended the rights of some, especially the rights of ISPs to operate without legal and regulatory constraints. Net neutrality opponents argued that regulations were overly burdensome; private companies should be able to control their networks as their property to control.

Net neutrality advocates and opponents fought over how net neutrality could shape the digital divide in the U.S. Rights-based arguments were couched within the digital divide. Net neutrality opponents argued that ISPs would not commit to virtual redlining -- deploying broadband technologies in more economically privileged neighbourhoods than other low-income and racialized classes. Instead, ISPs could offer low-cost options, but would be contingent on things like consumer demand, competitive pricing, and resources. Paying on a sliding scale based on data usage would be the most appropriate customer-paying model. It is ISPs' rights to set their own terms of payment after all; it is their infrastructure, their network equipment and management costs, their liability. ISPs have freedom of expression when creating and signing

contracts with customers, charging customers how they wish, and whether and how to prioritize data packets.

Conversely, prioritization harboured inequality. Prioritizing from the data packet to the human customer base produced a hierarchy of haves (or have more) and have-nots (or have less). Net neutrality opponents were more concerned about the First Amendment than with economic inequality. The FCC had no legal oversight to penalize ISPs from expressing favouritism of content. ISPs could operate more freely and thus spark innovation by the very loosening of regulation. Title II provided barriers of regulatory creep for ISPs. Nurturing a free and open Internet as a sandbox for ISPs and citizens or users to play in prompted economic freedom-based arguments. Freedom and openness became idealized concepts.

For net neutrality advocates, the digital divide represented a phenomenon that promoted a lack of choice and limited-to-no-access to digital tools, platforms, devices, services, and applications. FCC regulations could allow for more ISPs to compete in the market, which would keep prices low and quality of service high. ISPs' reluctance to invest in low-income and racialized communities meant that marginalized voices could not be heard through media firm investments in culturally-diverse content. ISPs and their affiliates who curate content guide consumers through their walled gardens, which closes free travel across the Web to explore more diverse content. More than that, media firms and actors of colour who wish to participate in sharing stories, advocate for justice, and expose injustices online can only do so with access to smartphones, tablets, laptops, and video and audio recorders. These technology devices, separate from paying for BIAS (broadband Internet access service), require money to purchase, use, maintain/fix, and enhance. Paying for BIAS would only be half the battle; acquiring a decently working device to make the world culturally aware of stories, advocacies, and injustices would

be the other half. Statistics about 54 percent of Black American and 50 percent of Latinx Americans subscribing to broadband services were myopic considering that what they did with BIAS depended on their devices' features, durability, and reliability. Imagine the state giving discounted gas cards to qualified residents based on low-income status, but their own vehicle was too unreliable and unsafe to drive. What purpose would a discounted gas card serve in promoting vehicle travel? Suffice it to say, net neutrality advocates believed that walled gardens were a means to control how consumers think through influential content and how consumers' misaligned political views could be grounds for blocking or throttling personal websites.

Does the average user care about data packet deliveries so long as deliveries are not noticeably slowed down or outright blocked? The net neutrality debates are bounded by discussions about neutralizing the delivery of data packets, and therefore content, to consumers without much attention on the control edge providers have in tailoring content to consumers. Edge providers, including ISPs who now assume the role of an edge provider in delivering content, navigate actors' perspectives on what we see and do not see online. AT&T's \$85 billion merger with Time Warner (now Warner Media) speaks to how crucial controlling the narrative is for what subscribers consume on platforms and applications. Net neutrality advocates would argue that what is at stake is tension between ISPs' physical and intellectual property ownership versus the removal of barriers to independent business innovation, equal access for digitally-disenfranchised actors, consumer protection, and free speech (e.g., see Kan, 2016).

In every analogy, net neutrality advocates argued for social equality. Equality was argued for in tiered service packaging, quality of service, speed, or barring competition over smaller competitors. Forms of exclusion could exist in property acquisition, resource extraction, user base poaching, employee poaching, and beating out the competition for investor seed funding.

Aside from some net neutrality advocates threatening the lives and dignity of regulators and politicians, net neutrality advocates and opponents overall agreed that closing the digital divide in poor rural areas was more pertinent than clashing over Title I and II classifications.

I refer to Ragnedda's (2017, p. 50) Weberian-inspired understanding of social inequalities to mean differences in actors' abilities to "obtain rewards and privileges to influence the behaviour of others ... [,] produce benefits for themselves and their reference group ... [,] and choose their own individual destinies and daily lifestyles." Ragnedda insists that there is not a metaphorical gap on a superficial level. Pre-existing socio-economic inequalities can influence digital inequalities just as digital inequalities can influence the social makeup of communities (p. 14). Ragnedda categorizes the dichotomous division of access to the Internet and its metaphorical gap as the first level of the digital divide. The second level is based on the different uses of the Internet with a gap in digital skills and capital. The third level "examines social benefits in the different uses of and access to the Internet," where inequalities exist in "reinvesting in the social realm, valuable information, and knowledge acquired online" (p. 23). The second and third levels have "different degrees of inclusion" compared to the dichotomous division (p. 23). In addition to measuring who has access to the Internet and who does not, Ragnedda argues more ways to measure aspects of the digital divide along a continuum. For instance, we may ask about the number of websites accessed or how frequent and how much time actors spend online. We may also ask why actors choose (not) to go online, what their online activities are (or are not), how skills are used to utilize digital tools, or how their capacity to utilize content influences their social interactions (reproduced online or in the flesh) (p. 49).

The enclosing of the digital commons and the inequality that persists for users to gain access to, consume, and share ideas clearly relates to the digital divide. There are instances

where access to information and information of a high quality is relative based on income, region (i.e., where actors live), interest to purchase goods and services with neighbours to create industry demand, and construction plans with ISPs and construction companies. ISPs have been accused in the past about ‘virtual redlining’ practices (e.g., see McMurria, 2019), which refers to ISPs focusing on investing in deploying broadband technologies in high-income urban, suburban, and middle-income neighborhoods. High poverty rates correlate with decisions not to invest, like in low-income communities of colour.

7.1.2 – How Formal Law Frameworks (Empirical & Normative – ‘According to Law & Regulation as They Are & Ought to Be’) Governed Data Packets & the Web

Section 7.1.2 will explore how formal law frameworks (empirical and normative – ‘according to law and regulation as they are and ought to be’) governed data packets and the Web. This section will explore how net neutrality advocates and opponents evaluate antitrust laws, understand the relationship between data packets and jurisdiction, understand what is possible under Titles I and II, and make sense of the FCC’s ECFS (Electronic Comment Filing System) process. First, net neutrality opponents repeatedly promote the application of antitrust laws, compared to net neutrality advocates who promote bright-line rules. The enforcement coverage of both legal frameworks is discussed to address protecting competition and consumer harms.

Second, net neutrality advocates and opponents advance legal and regulatory strategies to keep state government oversight accountable through jurisdiction. There are contestations over state versus federal jurisdictional power and the specific laws and regulations (i.e., exceptions, U.S. Codes, and acts) used to maintain governance over data packets and control of the Web.

Third, net neutrality advocates argue that *telecommunication* (Title II) and *information* (Title I) services are mutually exclusive, while net neutrality opponents argue that a stand-alone offering of *telecommunications* to consumers is not a sufficient way of understanding how consumers access BIAS (broadband Internet access service). Data transmissions can be integrated with the finished service to describe both as an integrated offering. Thus, consumers utilize the data transmissions in connection with *information*-processing.

Fourth, net neutrality advocates and opponents question how the FCC divided tasks amongst its hired researchers and analysts to decide whether and how to incorporate comment submissions into its final decision to repeal net neutrality in the ECFS process. The fraudulent comments that flooded the FCC's ECFS site suggest a coordinated attempt to mislead the FCC. FOIA (Freedom of Information Act) requests are filed to establish to what extent ECFS records should be released to investigative journalists for probing. I then examine the effects of the relinquishing of the FCC's own authority to impose conduct rules on ISPs.

7.1.2.1 – Evaluating Antitrust Laws

Net neutrality opponents repeatedly promote the application of antitrust laws, compared to net neutrality advocates who promote bright-line rules, in this first subsection. The enforcement coverage of both legal frameworks is also discussed to address protecting competition and consumer harms.

Net neutrality opponents repeatedly promoted the application of antitrust laws throughout the NVivo data set. Net neutrality opponents argued that antitrust laws prohibit agreements among competitors that reduce competition, such as price-fixing. Sections 1 and 2 of the Sherman Act and Section 5 of the FTC Act protects competition. Antitrust laws provide a rule of reason that balances pro-competitive benefits and anti-competitive harms. Antitrust enforcements

require factual evidence of actual market power problems or consumer harms and puts the burden of proof on complainants. Corporations were less likely to violate antitrust laws in the future if they were subject to enforcement. Antitrust laws could ultimately provide a legal framework of protection for users on a case-specific basis, where laws would consistently and equally apply to all entities. However, the sheer burden of seeking redress through antitrust laws and proof required to build a successful legal complaint could be deterrence enough for complainants to withdraw or refrain from entering their complaints.

When varying interpretation is needed in balancing pro-competitive benefits and anti-competitive harms, a case-by-case legal application could account for the dynamism of the Internet. Sometimes, bright-line, standardized, predictable, pre-emptive laws might not accurately balance pro-competitive benefits and anti-competitive harms. One of the bright-line rules proposed by net neutrality advocates was no paid prioritization of data packet delivery. Paid prioritization is part of the data packet switching function and used in service offerings, so bright-line rules would be difficult to apply. To appease the concerns of net neutrality advocates, the 2017 Order does implement a transparency rule that requires ISPs to disclose all data packet switching functions and service offerings, such as blocking, throttling, and paid prioritization.

Other net neutrality opponents argued that antitrust law could not address paid prioritization since *non-discrimination* is not part of antitrust laws. There would be no violation of antitrust laws if an ISP is not competitively disadvantaging its competitors (a requirement for the *discriminatory-refusal-to-deal* antitrust doctrine). Thus, it is difficult to apply antitrust laws when no direct price or sale is made. Similarly, net neutrality advocates argued that antitrust violations would not exist if an ISP throttled innovators' services that did not compete directly with the ISP's service.

Net neutrality advocates argued that a company could not be held liable for illegal collusion with its own subsidiary or parent companies. This *single entity* defence makes it easier to evade net neutrality antitrust violations. Antitrust laws focussed too much on defining harm in terms of higher prices and diminished product quality, and not enough on gatekeeping freedom of expression, access to knowledge, and infringement on privacy rights. Antitrust enforcement would take too long since it requires detection, investigation, prosecution, a rule of reason analysis, and a multiyear appeals process. The cost of litigation would also be high.

Bright-line rules could protect competition and consumer harms and could include a general conduct rule when varying interpretation is required in a legal case. This could reduce litigation costs. Net neutrality advocates understood that law is the culmination of rules and precedents applied by judges and juries and defended by lawyers. Rules that seek to embody every economic complexity may be counter-productive. The 2017 Order pre-empted states from imposing rules or requirements that the FCC repealed or decided to refrain from imposing or believed would be a stringent economic requirement for BIAS (broadband Internet access service). The 2017 Order did not stop net neutrality advocates from attempting to use other laws and regulations to encourage data packet and Web governance at the state level.

7.1.2.2 – Data Packets & the Inconvenience of Jurisdiction – Part I

Net neutrality advocates and opponents advance legal and regulatory strategies to keep state government oversight accountable through jurisdiction in this second subsection. There are contestations over state versus federal jurisdictional power and the specific laws and regulations (i.e., exceptions, U.S. Codes, and acts) used to maintain governance over data packets and control of the Web.

Jurisdiction and authoritative reach between federal and state government regulators were two of the most discussed narratives. Legal and regulatory strategies were attempted to keep state government oversight accountable through jurisdiction. In this subsection, attention will be paid to contestations over state versus federal jurisdictional power and the specific laws and regulations (i.e., exceptions, U.S. Codes, and acts) used to maintain governance over data packets and control of the Web.

When looking at the entire telecommunication user base, the scale of ISPs' reach in delivering services was massive. To what extent could lawyers and regulatory commissions represent the complexity of what it took to operationalize ISP practices? Some of the dynamics that lawyers and regulatory commissions should be aware of were resource allocations for building infrastructure, including permits to dig, service coverage, and a wide user service base. Some lawyers might shy away from immersing themselves into a case with many moving parts since it could quickly become too complex. Likewise, the FCC or FTC could find it overwhelmingly difficult to regulate the introduction of new issues that arose from competitors, users, and technologies.

States that supported net neutrality principles began crafting and implementing statewide broadband access bills for ISPs to honour. State legislation began as a legal and regulatory tool to supplant Congressional action and FCC oversight. Net neutrality opponents did not want a nanny state of regulators and regulations over the market, and net neutrality advocates did not want a state that was void of any regulators and regulations over the market. Even if states chose to override the FCC's 2017 Order with their own net neutrality legislation, there were still some inconsistencies between those states. For instance, some states upheld paid prioritization exemptions to account for reasonable network management. This meant that data packet traffic

shaping was allowed if it included a technical network management justification, did not include other business practices, and achieved a legitimate network management purpose under the network architecture and technology of BIAS (broadband Internet access service). Other states did not implement these reasonable network management principles.

The state versus federal jurisdiction narrative could be distilled to one source of contention: figuring out whether and how data packets could be governed differently across state lines. According to net neutrality opponents, states could not govern data traffic since data could not recognize state lines; therefore, only the federal government could set regulatory policies. Nearly half of the states adopted their own telecommunications regulations despite the FCC's 2017 Order and the Communications Act of 1934, which prohibited states from doing so. However, even though federal laws and regulations were superseded by states, the statewide broadband Internet access bills were state legislature and adopted many of the same net neutrality principles and rules found in the 2015 Order. Net neutrality opponents argued that the 2017 Order was less cumbersome than state legislature in that it championed less legal and regulatory interventions.

According to the U.S. Constitution, states did not govern interstate commerce. The Supremacy and Commerce Clauses in the U.S. Constitution protected ISPs from inconsistent regulations that are burdensome and practically impossible to follow. However, did data packets remain as interstate commerce throughout the entirety of their travels? Even though data packets travelled world-wide, data packets eventually crossed state lines into homes. Data packets traversed state lines, so how could state jurisdiction bind them? Comparatively, transportation trucks carried shipments across state lines into businesses, where their routing sequences were set across the country, states, regions, counties, municipalities, and towns. Each zone had

different rules that governed its shipments in terms of carrying capacity, speed travel, or which roads must not be traversed. Each state did not try to control the entire trucking industry. Instead, each state set its own rules to deliver shipments locally and trucks had to abide. Net neutrality advocates argued that states could govern things that were beyond data packets, but that were integral to the delivery of those data packets. For instance, states could govern terms and conditions of wireless services, including billing, termination of service arrangements, and the imposition of early termination fees, advertising, network outages, the use of devices while driving, zoning, and land use. The governance of data packets depended on the multifaceted governance of the building of infrastructure and usage of services users interacted with.

Net neutrality opponents argued that neighbouring jurisdictions that did not subscribe to net neutrality provisions would make it exceedingly difficult for ISPs to carry out their ability to deliver data packets. ISPs would experience regulatory uncertainty across the country. How ISPs intricately connected with multiple network operators for traffic exchange and with CDNs (content delivery networks) across different geographic locations created tension already. There were several relationships with entities ISPs had to engage in before connecting to users to deliver data packets. Adding another layer of geographic restrictions and terms of engagement for ISPs to adapt to would degrade quality of service for users or bring a halt to ISP data packet delivery service and terminate access to the Web. Net neutrality opponents suggested to have the courts wait until a specific state law was pre-empted before a court review of states adopting their own statewide broadband access bills could commence.

Net neutrality advocates and opponents used specific laws and regulations to gain a power advantage over the opposition. Exceptions, U.S. Codes, and acts were used to legitimize jurisdictional authority over governing data packets and the Web federally or at the state level.

Every exception, U.S. Code, and act were used in the context of arguing whether states had the authority to govern interstate communications. As net neutrality opponents pointed out, the U.S. Supreme Court ruled that the FCC could pre-empt state law under the *impossibility exception* when the activity was deemed impossible or impracticable to regulate intrastate activities without negatively affecting interstate activities and if the FCC determined that state regulations would interfere with federal regulations. Both conditions were met since statewide broadband access bills interfered with the 2017 Order directives and the Internet traffic access crossed interstate and foreign country lines. Furthermore, in the 2015 Order, BIAS was recognized as an interstate service for regulatory purposes.

The FCC also said it had the legal authority to pre-empt inconsistent state and local laws based on federal policy of nonregulation for *information* services and the 47 U.S.C. § 160(e)'s forbearance provision. First, Congress embraced the FCC's policy of pre-empting state laws that interfered with its policies of nonregulation. Second, the 47 U.S.C. § 160(e)'s forbearance determinations pre-empted contrary state regulatory or legal efforts. Congress never intended for state or local governments to countermand a federal policy of nonregulation or have authority over the federal government.

Net neutrality advocates claimed that the FCC did not provide adequate notice of the *impossibility exception's* intent and basis. More importantly, classifying BIAS as an *information* service meant that the FCC's 2017 Draft Order abdicated the FCC's authority to regulate ISPs. When the FCC lacks the authority to regulate, it cannot pre-empt states from regulating or enacting laws. Net neutrality advocates also claimed that the exception would not apply when an ISP could determine that the start and end points of BIAS occurred only within a state, making it possible to separate interstate and intrastate services. Determining the start and end points of

BIAS every single solitary time a user accessed a website or any server that either remained in-state or out-of-state would be impossible. Keeping an *impossibility exception* scoreboard of intrastate and interstate start and end points of BIAS each time a client reached out to the host to access the Web would be insurmountable.

Net neutrality advocates and opponents referenced U.S. Codes to see whether and how states had authority over *telecommunication* services. Net neutrality opponents cited 47 U.S.C. § 230(b)(2), which stipulates that federal and state regulations should not interfere with the competitive free market for the Internet, especially its *information* services. This U.S. Code portrayed the Internet as a structure to be defended against regulation that was arbitrary and capricious. The emphasis on the economic value of the Internet was entrenched in this law. The fact that the Internet was deemed an *information* service, 47 U.S.C. § 153(51) forbade any federal or state common carrier regulation of any kind. Freedom of information access and production was also held as a top-level value that the Internet provided to U.S. citizens. Thus, the free market and access to information were portrayed as being vital to the U.S. economy and freedom of thought and speech. These laws attempted to supplant any regulation that would get in the way of defending the competitive free market and the right to produce and share ideas, concepts, issues, and arguments.

Net neutrality advocates tried to eclipse net neutrality opponents by citing 47 U.S.C. § 152(b). This U.S. Code prohibited FCC regulation on intrastate matters. The FCC would also be prohibited to regulate even when intrastate matters connected to interstate matters and when facilities were physically inseparable. For example, the FCC would have no regulatory jurisdiction over facilities that housed multiple networks through wired connections deemed interstate and intrastate. There was a Congressional denial of power to the FCC with matters that

fell directly into the provision of intrastate communication services, such as charges, facilities, and practices. Matters like these were an intrastate concern and directly related to interstate matters. States' prerogatives were not a concern for the FCC. However, net neutrality opponents argued that the FCC had a right to pre-empt state law related to ISP practices since the Telecommunications Act of 1996 constituted unambiguous command from Congress. But the act was subject to substantive and interpretive limitations of 47 U.S.C. § 152(b). Here, the FCC had no jurisdiction over states unless the state provision was ambiguous. 47 U.S.C. § 152(b) could have been overridden but was one more layer of protection against FCC jurisdictional oversight that had to be proven to make an ambiguous state provision unambiguous.

Net neutrality advocates pointed out that 47 U.S.C. § 253(c) preserved state authority over *telecommunication* services, yet BIAS was not classified as such. Net neutrality opponents argued that no state or local regulation and law may prohibit the ability of any entity to provide any interstate or intrastate *telecommunication* service. Paving the path for an ISP to contribute to the U.S. Internet market economy was baked into the U.S. Code; however, BIAS was classified as an *information* service, not a *telecommunication* service. The other part of the U.S. Code determined that states could impose on a competitively neutral basis requirements necessary to preserve and advance universal service, protect public safety and welfare, ensure *telecommunication* service quality, and safeguard user rights. Once again, this U.S. Code referred to *telecommunication* service quality when BIAS was classified as an *information* service. The FCC can pre-empt the enforcement of that state-created statute, regulation, or legal requirement if either or both parts of the U.S. Code were violated.

7.1.2.3 – Defining What is Possible Under Titles I & II – Part I

In this third subsection, we will review how net neutrality advocates argue that *telecommunication* (Title II) and *information* (Title I) services are mutually exclusive, while net neutrality opponents argue that a stand-alone offering of *telecommunications* to consumers is not a sufficient way of understanding how consumers access BIAS (broadband Internet access service). Data transmissions can be integrated with the finished service to describe both as an integrated offering. Thus, consumers utilize the data transmissions in connection with *information*-processing.

Net neutrality advocates argued that *telecommunication* (Title II) and *information* (Title I) services were mutually exclusive. The FCC's determination that BIAS was an *information* service necessarily precluded that it was a *telecommunication* service. The same ISP could provide both *telecommunication* and *information* services. However, it is difficult to separate the *telecommunication* and *information* services since major ISPs were also content providers. Net neutrality opponents believed that a stand-alone offering of *telecommunications* to consumers was not a sufficient way of understanding how consumers accessed BIAS. Data transmissions can be integrated with the finished service to describe both as an integrated offering. Thus, consumers utilized the data transmissions in connection with *information*-processing.

Defining what is possible under Titles I and II was reminisced in a 2014 case. AT&T appealed to the U.S. Supreme Court to avoid a lawsuit by the FTC over its throttling of data in unlimited data plans. AT&T's mobile and landline voice services (deemed Title II *common carrier* classification) protected its throttling of unlimited data plans. At the time, BIAS was classified under Title I *information* service classification, but AT&T relied on its Title II *common carrier* classification to evade FTC regulation. The FTC failed to get court approval to

regulate non-common carrier service even if that company was considered a common carrier.

AT&T relied on its Title II classification to win this case, but was now calling to repeal Title II.

Net neutrality advocates argued that common carriage had the technical functionality of being a conduit and the commercial functionality to serve the public. Public utility was rooted in state law from the grant of a franchise by government to the entity to provide service. Telephone companies have always been treated as both a common carrier and public utility, but FCC jurisdiction was based on common carriage status. Some net neutrality opponents conflated public utilities and common carriage with monopolies. This misperception described how there was no need for regulation if monopolies become destroyed since both public utilities and common carriage are associated with monopolies. According to net neutrality advocates, common carriage classification was still needed if ISP monopolies ceased to exist.

Net neutrality opponents argued that Title II divested the FTC consumer protection authority over ISPs, such as policing ISPs that engaged in unfair or deceptive practices. Instead, Title I would provide powerful legal checks via state consumer protection laws and state attorneys general. Title II was the repealed BIAS classification in the 2017 Order decision. The FCC abided by the Administrative Procedure Act (APA), which was a law for rulemaking to implement the 2017 Order. When the FCC proposed new policies, the public could voice opinions through the FCC's ECFS (Electronic Comment Filing System) process.

7.1.2.4 – Making Sense of the FCC's ECFS (Electronic Comment Filing System) Process

In this fourth subsection, net neutrality advocates and opponents question how the FCC divided tasks amongst its hired researchers and analysts to decide whether and how to incorporate comment submissions into its final decision to repeal net neutrality in the ECFS (Electronic Comments Filing System) process. The fraudulent comments that flooded the FCC's

ECFS site suggest a coordinated attempt to mislead the FCC. FOIA (Freedom of Information Act) requests are filed to establish to what extent ECFS records should be released to investigative journalists for probing. I then examine the effects of the relinquishing of the FCC's own authority to impose conduct rules on ISPs.

The FCC did not cite any of the millions of comments, letters, or calls received and saved in the FCC's ECFS. This suggested that the FCC did not take citizen opinions seriously, at least according to net neutrality advocates. Commenters who submitted attachments that weighed in on the implications of repealing net neutrality never had a chance to have their stories heard. Both net neutrality advocates and opponents asked questions about how the FCC divided tasks amongst its hired researchers and analysts to decide whether and how to incorporate comment submissions into its final decision to repeal net neutrality.

When the FCC opened its NPRM (notice-of-proposed-rulemaking) process to the public to hopefully find 20–30 useful comments, questions arose around the FCC's criteria for managing its staff's ability to follow guidelines and internal legal analysis, especially around how to consider which comments were devoid of substance. Congress, Ranking Committee, and Subcommittee members were unclear about how the FCC staff's analysis was to proceed. The answers that came from direct questions about the murkiness surrounding guidelines, analyses, and hours and budget spent to organize review of the record remained murky. Another question that members asked and received an uninformative response was why the FCC did not cooperate with the Democratic New York Attorney General's criminal investigation into fraudulent filings.

Fraudulent comments flooded the FCC's ECFS site. Names and addresses were stolen, private information was exposed, and identities were used to file false political statements. Multiple comments were duplicated, and some comments came from hacked and defunct

accounts, with some stemming from Russian IP (Internet Protocol) addresses to allegedly influence the development of rules to carry out laws. The fraudulent comments suggested a coordinated attempt to mislead the FCC. But did this matter since the FCC was adamant that it would not consider comments that merely conveyed support or opposition, which was the bulk of fraudulent comments? Net neutrality advocates argued that identity theft of two million dead or alive actors who did not make political statements was a federal crime under Title 18 and a crime in many states. The FCC supposedly kept the fraudulent comments in the record since it did not want to hinder robust public participation by encouraging collateral wrangling over the truthfulness of statements. This did not negate the fact that the FCC did not cooperate with federal and state officials into figuring out how its NPRM process became rife with fraud.

At the end of non-responses, or uninformative responses at best, and an unwillingness to cooperate with criminal investigations, the FCC technically did not violate the Administrative Procedure Act (APA). The FCC claimed to prioritize substantive comments that dealt with legal and policy consequences of its proposal to repeal net neutrality principles. As well, there was no legal obligation to adopt an identity-verification procedure, even though one of the suggestions was to put a disclaimer that submission constituted the filer's certification under penalty of perjury that the filer was authorized to submit on behalf of the named commenter. The FCC followed a court substantial evidence standard, as determined by the U.S. Court of Appeals for the D.C. Circuit. Here, the FCC was said to have been guided by facts in the record and by a motivation to determine public interest. Net neutrality advocates' suggestions about how the FCC should notify impacted actors from the fraudulent comments or remove the fraudulent comments from the record seemed pointless. The D.C. Circuit's legal outcome was final, making every other suggestion or complaint seem irrelevant.

The legal outcome did not stop FOIA requests from being filed. The requests sought information about the alleged fraudulent activity and FCC agency computer network vulnerability, namely about elements like Web server logs, IP addresses, timestamps, public API (Application Programming Interface) keys used to submit online comments, User-Agent headers (i.e., information that identifies a user's browser and operating system) and email addresses. Plaintiffs wished to clarify whether and to what extent fraudulent activity interfered with the comment process and the extent to which administrative rulemaking was vulnerable to corruption. Whether these two means led to clarity on fraudulent activity and ECFS vulnerability to corruption remained to be seen. The judges thought it was necessary to pursue these means. At the same time, the FCC won its withholding or redaction of certain privileged email addresses and server logs. All presiding judges in the three cases believed it was significant for the plaintiffs to seek public knowledge about the ECFS comments debacle.

Out of the three FOIA request legal cases, the FCC as defendant and the plaintiffs won and lost arguments made to withhold and retrieve records. Legal outcomes helped to establish to what extent ECFS records should be released to investigative journalists to probe the ECFS fraudulent comments debacle. But sometimes laws and regulations were not so precise in application. The FCC was observed in many instances as overextending regulatory reach into pronouncing how the U.S. Internet market economy should function. In another instance, the FCC attempted to bring about its own authoritative demise.

Since BIAS (broadband Internet access service) was classified as an *information* service, the FCC's 2017 Draft Order relinquished the FCC's own authority to impose any conduct rules on ISPs. The FCC could not thereafter assert that it had a policy goal of removing regulations and laws for something over which it had no authority, precluding itself from pre-empting state

and local broadband access bills. The irony of bringing this Title I and II debate to light in 2017 was that regulation was being debated by regulators to repeal regulation. The arguments against heavy-handed regulation were largely made by anti-regulation Republican Party members who were in a position to regulate the ISPs by reclassification of BIAS. This reclassification of BIAS was an attempt to recede regulatory authority from the FCC and give new regulatory authority to the FTC. Thus, regulation was never out of the equation for anti-regulatory Republican Party members and other net neutrality opponents. It was ironic that a regulatory body was needed to strip itself of regulatory power to instil new regulatory power into another regulatory body. But even then, the Appeals Court ruled that state and local laws could enact net neutrality rules. Again, why did the FCC and FTC exist to govern data packets and the Web after this ruling?

7.1.3 – How Formal Regulation Frameworks (Empirical & Normative – ‘According to Law & Regulation as They Are & Ought to Be’) Governed Data Packets & the Web

Section 7.1.3 will assess how formal regulation frameworks (empirical and normative – ‘according to law and regulation as they are and ought to be’) governed data packets and the Web. This section will assess how net neutrality advocates and opponents debate over whether the FCC or FTC are the more effective governors of data packets and the Web and whether regulation is necessary. First, net neutrality advocates question the purpose and effectiveness of the FCC and its ECFS (Electronic Comments Filing System) process. Net neutrality advocates defend how the FCC ought to adjudicate complaints on a case-by-case basis to see if broadband providers were in line with an Internet reasonable conduct standard since there should be regulatory guidance. The FTC is viewed by net neutrality opponents as being more practical in its approach to analyzing consumer harms and in conducting marketplace competition analyses to signal whether harm to business competitors occurred.

Second, net neutrality opponents argue that regulatory compliance costs would be burdensome for ISPs and that being neutral in organizing data packets was impossible, making state regulation redundant. A utility-style regulatory framework is outmoded. Net neutrality advocates believe that Republican FCC Chairman Ajit Pai would give ISPs the ability to increase prices for Internet access; therefore, regulation is necessary since ISPs use legal and regulatory tools (patents and high-priced lawyers), political and economic tools (purchasing lobbyists), and technological tools (standardizing platforms) to dominate market sectors.

7.1.3.1 – The FCC or FTC: Which Regulator Regulates Best?

In this first subsection, net neutrality advocates question the purpose and effectiveness of the FCC and its ECFS (Electronic Comments Filing System) process. Net neutrality advocates defend how the FCC ought to adjudicate complaints on a case-by-case basis to see if broadband providers were in line with an Internet reasonable conduct standard since there should be regulatory guidance. The FTC is viewed by net neutrality opponents as being more practical in its approach to analyzing consumer harms and in conducting marketplace competition analyses to signal whether harm to business competitors occurred.

The fraudulent ECFS comments debacle was supposed to verify emails to reduce the number of illegitimate comments submitted. Net neutrality advocates called on the FCC to notify those who were affected, remove the fraudulent comments, release information about who filed them and investigate, and cite laws against making false claims to show how serious this situation was. Unanswered questions by net neutrality advocates included, how impactful was the comments process to the FCC in making regulatory rulings? Did the outrage from real-life, legitimate submitters about the ECFS corruption matter? How was the FCC going to fix this issue and deter future fraudulent filings?

The types of comments that would supposedly be impactful had to include factual arguments and data that had legal backing. Empirical data or analysis of data, methodological concerns about data analyses, legal theories, and cost-benefit analyses of Title I reclassification effects would be considered useful. No comments were cited. Inquiries were given to the FCC about regulatory processes, like: staff guidelines; internal legal analysis; determination standards of substantive versus non-substantive comments; decision-making to not cooperate with the criminal investigation; staffing hours, including full-time and overtime, to review the record; and budget to compensate for staff working overtime.

In a response to these inquiries, Republican FCC Chairman Ajit Pai replied that the FCC was guided by empirical facts, proscriptions, and outcomes in its decision-making, by substantial evidence by the D.C. Circuit, and by public interest. The U.S. Court of Appeals for the D.C. Circuit reaffirmed that the FCC abided by the Administrative Procedure Act (APA). There was no legal obligation to adopt an identity-verification procedure, and fraudulent comments were kept to avoid hindering public participation in policymaking. Identical or nearly-identical non-substantive comments did not impede the FCC to identify or respond to issues. The FCC would work with the Office of Managing Director to review all information technology projects to determine the success/fail ratio. Upgrades and maintenance improvements had been made, and determining the cause of past deficiencies would be investigated.

Net neutrality advocates defended how the FCC ought to adjudicate complaints on a case-by-case basis to see if broadband providers were in line with an Internet reasonable conduct standard since there should be regulatory guidance. FCC rules could still be flexible in the ever-changing BIAS (broadband Internet access service) market, but there should be an aim toward specific practices ISPs ought to abide by, such as incurring financial penalties when ISPs violate

openness. Allowing the FCC to take a lesser involved role in guiding ISP corporate behaviour has shown harm to the BIAS industry. When former Republican FCC Chairman Michael Powell deregulated the BIAS industry, prices increased, usage caps tightened, and there was hardly any competition at faster data speeds. The 2017 Order stripped the FCC of its ability to impose conduct rules on ISPs. When the FCC tried to pre-empt state efforts of implementing their own net neutrality rules, the FCC was powerless. The FCC's pre-emption order had to be rooted in Title I ancillary authority, based on separate statutorily mandated responsibility.

The Democratic Party invoked the Congressional Review Act (CRA) to authorize a resolution of disapproval of agency regulatory actions. The act tried to overturn the 2017 Order rules, which passed the Senate but failed at the House of Representatives. Many net neutrality advocates and opponents were opposed to the use of the CRA. Net neutrality opponents discussed how the FCC created the Office of Economics and Analytics to centralize economists and data analysts to research proposals, gaps, and findings in geographic information mapping. Not one economist served on the FCC's leadership team. Net neutrality opponents were worried about the rule-setting authority the FCC had in setting prices and conditions of service, preventing ISPs from discontinuing services, and requiring utility-style tariffs.

The FTC alternatively provided expert analysis, technicality, and empiricism. The FTC had experience overseeing data security and privacy practices across numerous sectors. The FTC was viewed by net neutrality opponents as being more practical in its approach to analyzing consumer harms and in conducting rigorous marketplace competition analyses to signal whether harm to business competitors occurred. Codes of conduct could be applied to ensure fiduciary promises were upheld as well as enforcing antitrust laws on a case-by-case basis, which required factual evidence. Antitrust laws were enforced through criminal and civil enforcement actions by

the DOJ's (Department of Justice) Antitrust Division, civil enforcement actions by the FTC, and lawsuits by private parties. In particular, the FTC gained its authority through Section 5 of the FTC Act which prohibited unfair methods of competition and unfair and deceptive trade practices. One way to provide some net neutrality protections would be for ISPs to voluntarily agree to not obstruct, prioritize, or slow down data packets. However, fiduciary promises, including terms of service agreements, could easily be changed to address complaints where the ISP had only itself and its shareholders to answer to. Promise-makers making promises was arguably not as strong as being held to standardized pre-emptive rules.

Net neutrality advocates feared that ISPs were becoming arbiters of online business models by setting arbitrary tolls. The FTC lacked expertise in telecommunications, data network management practices, and detecting data discrimination. In fact, antitrust tools protected competition, so how could antitrust law be effective when there were so few BIAS providers to begin with? The FTC would investigate after net neutrality violations (i.e., blocking, throttling, and paid prioritization of data) occurred (for which consumer harm had to be considered substantial) and rarely issued prescriptive rules unless directed by Congress. The FTC did not have the tools to ensure a free and open Internet since it has no rulemaking authority. Rules helped prevent harm before it happened. Also, the case-by-case process was inconsistent and lacked certainty and was extremely slow to conclude legal proceedings.

Yet, at least the FTC was clear in its application despite the narrowed scope of applying to consumers and competitors. There was some sense of predictability in how laws would be enforced. The FCC was unclear in its level of rules application since the fluctuation of Title I and II determined if and how net neutrality principles should apply. An ISP's anti-competitiveness that aligned in throttling a service that matched that of another ISP's would be under the guise of

an antitrust violation; the FTC had a more consistent set of rules backed by acts and legislation to help with enforcing fair practices. The scope of the FTC was wide enough to deal with ISP-induced corporate and consumer harms.

Furthermore, the lack of FTC expertise in the field was an unfair argument by net neutrality advocates. Since the FCC had no economist on its leadership team, and since economics was one of the four core themes to the net neutrality debates, the FTC was looking to fulfill that lacuna. As for the argument about antitrust law being slow in progressing from implementation to outcome, any legal proceeding could take a long time to conclude. Legal proceedings take time to detect, investigate, prosecute, analyze against a set of rules, sentence, and respond to appeals. Since most regulatory bodies pre-empted and reacted to deter and apprehend those who violated laws and regulations, the FTC was no different. The FTC was retroactively applying rules after ISP harms occurred, just like judges. The specific laws and regulations corporations had to abide by aimed to deter corporations from engaging in harm to competitors and consumers on a case-by-case basis to ensure each instance of harm was dealt with individually.

Net neutrality opponents' suggestion to apply a *law layered approach* could be one way to designate specific roles and responsibilities to government agencies to enforce laws. The suggestion was to have the FTC as the lead agency to enforce laws and hold corporations to any promises made, the DOJ as an enforcer of antitrust laws, and state attorneys general and private litigators as legal checks to user harms.

7.1.3.2 – Is Regulation Necessary for the Functioning of Data Packets & the Web?

In this second subsection, net neutrality opponents argue that regulatory compliance costs would be burdensome for ISPs and that being neutral in organizing data packets was impossible,

making state regulation redundant. A utility-style regulatory framework is outmoded. Net neutrality advocates believe that Republican FCC Chairman Ajit Pai would give ISPs the ability to increase prices for Internet access; therefore, regulation is necessary since ISPs use legal and regulatory tools (patents and high-priced lawyers), political and economic tools (purchasing lobbyists), and technological tools (standardizing platforms) to dominate market sectors.

Net neutrality opponents argued that regulatory compliance costs would be a burden for new ISP entrants. New ISP entrants would incur high costs of deploying their network. Deploying their network would be a higher cost compared to the regulatory compliance cost to keeping the network neutral. Thus, this would be unfair to new ISP entrants. If states adopted net neutrality principles into a state-wide policy, ISPs could entice users by promoting themselves as offering *net neutral* services. ISPs selling net neutral services could be perceived as a marketing tactic, a chance to show a commitment to abide by state government regulation. Regulation could be turned into an opportunity to market *net neutral compliance* to consumers.

Net neutrality opponents discussed how prioritizing data packets based on time, capacity, and payees made sense since packet switching created congestion in networks. Being neutral in organizing data packets was impossible, so how could regulation account for the impossible? Most ISPs were concerned with regulatory creep if a broad prohibition of paid prioritization were to come to fruition. ISPs would thus become more reluctant to invest in the market if wide-scoping regulatory measures, such as paid prioritization, were to put restrictions on how data packet switching services were supposed to operate.

On the other hand, net neutrality advocates believed that Republican FCC Chairman Ajit Pai would give ISPs the ability to increase prices for Internet access. ISPs would also block, throttle, and prioritize sites with political censorship capabilities and stifle innovation by

dominating their competition. What did suppression by ISPs look like and how would it work? ISPs that actively targeted extreme nationalist, individual rights-bearing, right-wing conservative views or extreme anti-capitalist, group rights-bearing, left-wing liberal views never came up in the NVivo datasets.

While courts could still determine outcomes of unfair trade, the Sherman Antitrust Act helped to break up the economic and political capital monopolies hold. Republican Solicitor General Robert Bork argued that antitrust legal intervention raised prices by protecting weak enterprises from competition; only competition should be defended. Allowing corporate mergers, expanding market shares, and offering price discrimination would protect consumers. However, net neutrality advocates argued that information and ideas with content creation is most valuable. Scaling ISPs as behemoths in the industry does not leave room for competition. ISPs use legal and regulatory tools (patents and high-priced lawyers), political and economic tools (purchasing lobbyists), and technological tools (standardizing platforms).

The 2002–2017 net neutrality timeline of classifying BIAS (broadband Internet access service) under Title I (*information* services) or Title II (*telecommunications* services) was a battle over semantics in how data packets were actually transmitted from host to client. The battle over how much investigative authority the FCC ought to have transpired in 2017, but was only done through the reclassification of BIAS under Title I. The 2017 Order was a market and technology-first approach. Net neutrality opponents argued that a utility-style regulatory framework was outmoded from the Bell telephone monopoly. The Internet revolution began because of light-touch regulation.

7.1.4 – How Non-Normative Frameworks (Technological Management & Solutions – ‘According to What Law & Regulation Can & Cannot Do’) Governed Data Packets & the Web

Section 7.1.4 will evaluate how non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) governed data packets and the Web. This section will evaluate how net neutrality advocates and opponents contest how data packets control networks, how data packets and jurisdiction (mis)align, how Titles I and II define what is possible in governing data packets and the Web, and how terms of service agreements attempt to secure law and regulatory coverage. First, net neutrality advocates and opponents contrast in how data packets control networks through governing techno-logistics, or the operations, interfaces, and packaging and delivery of the final product and its intended uses. The logistics under question include packet switching networks, content delivery networks (CDNs), deep packet inspection (DPI), and fifth generation (5G) broadband cellular networks.

Second, arguments for and against the compatibility of data packets and jurisdiction are revisited. Net neutrality advocates in the State of California pass a bill to prevent ISPs from imposing restrictions on first responders during emergencies, for which net neutrality opponents criticize its ambiguity. Net neutrality opponents launch a legal complaint against Democratic ASG California Xavier Becerra about attempting to pass net neutrality legislation. Patchwork state and local laws can logistically impede interstate communication.

Third, arguments for what is (im)possible under Titles I and II are revisited. Net neutrality advocates argue that the FCC used to enforce open access and non-discrimination via Title II (*telecommunications services*) and that DNS (Domain Name System) (i.e., matching names to numbers of a website address) and caching (i.e., the storing of data to load future

requests faster and reduce latency) constitute user-directed transmission of information from point to point as a *telecommunication* service. Net neutrality opponents argue that ISPs provide information-processing capabilities via telecommunications but does not separately offer telecommunications and that the FCC treats DNS look-up and caching as a precondition for classifying BIAS (broadband Internet access service) as an *information* service.

Fourth, the Mendocino Complex wildfire debacle saw Verizon throttling data speeds of Santa Clara Fire Department since it exceeded its monthly limit. Verizon did not violate net neutrality principles, but the department had no recourse to file a complaint with the FCC for unjust or unreasonable prices and practices under the 2017 Order. Net neutrality opponents rationalize that customers contractually enter into terms of service agreements with ISPs, but net neutrality advocates fear that ISPs could evade FTC recourse by adding new provisions to block, throttle, and prioritize data packets. I end by detailing how there is a lack of attention paid to how crucial the user is in the operationalization of data packets and the continued functioning of the Web, and thereby the need to govern technological exchanges.

7.1.4.1 – How Data Packets Control Networks (Packet Switching Networks, CDNs, DPI, 5G)

In this first subsection, we review how throughout the trajectory of new technological breakthroughs and rollouts, laws and regulations have been known to be slow to adapt to govern the properties of techno-logistics. The term *logistics* refers to the operations, interfaces, and packaging and delivery of the final product and its intended uses. Some of the ways data packets control networks can be found in the logistics of packet switching networks, content delivery networks (CDNs), deep packet inspection (DPI), and fifth generation (5G) broadband cellular networks.

Packet switching is the dividing of data into small packets for transmission to be reassembled to its end form. Through packet switching, ISPs could prioritize data via discrimination, subsidization, pricing, blocking, and throttling of services, applications, and content. Packet switching was the building material to fortify a walled garden approach. ISPs could promote commercial negotiations to access content, applications, platforms, services, and/or devices to partners and users. Net neutrality opponents believed that the form or content of the information changes over networks through packet switching and that net neutrality state bills would fracture costs of deliveries and partnerships between providers and content, delivery, and cost for users. Net neutrality advocates disagreed. They claimed that changing the data packet structure did not alter the form of the information. The customer tells the ISP to send the data payload in an IP (Internet Protocol) packet, as it makes no difference whether ISPs repackaging the data payload using other protocols.

Another logistic of data packets controlling networks is CDNs. Edge providers pay intermediate network providers to reach ISPs and their customers, with some investing in CDNs to directly connect to ISPs without monetary payment by either party to network operators that offer an exchange of traffic and value to the providers and their customers. If there were shifts in traffic volumes of flows or if traffic or value exchange were uneven, sharing upgrading capacity costs or making payment in one direction could occur, which would ensure that no provider is stuck with funding disproportionate network costs and provide incentives for parties to exchange traffic efficiently and predictably.

A third logistic of data packets controlling networks is DPI, or the ability to inspect the header and data field of data packets. The header contains the source and destination addresses and the data field includes the message content and source application identity. DPI allows for

network operators to identify the origin and destination points of the data packets and to determine the application used and packet content. Net neutrality advocates chastised the potential for network operators to differentiate or discriminate data packets along a faster priority path or actively throttle competitors' traffic. By the same token, DPI could be used in filters and firewalls to detect and prevent spam, viruses, worms, and malware, to gain information to help plan network capacity and diagnostics, and to respond to law enforcement requests for information retrieval. DPI thus had anti-competitive potential and network operational efficiency potential.

5G broadband cellular networks was the most current debatable issue in the NVivo data set that not only remained unresolved between net neutrality advocates and opponents, but was so new that most of the timeframe reviewed in the data was from before its official rollout. Recall that the data was Web-scraped into NVivo between the period of January 20, 2017 until March 13, 2020. U.S. telecommunication carriers did not rollout 5G until the first quarter of 2019. Even then, many users did not have access to 5G. 5G required a prioritization on networks with responsiveness across high frequency waves which allowed network towers to send and receive more data faster. Types of data (e.g., a telehealth virtual video call) become prioritized over other types of data (e.g., streaming a Netflix video).

Applications utilize slices (segments) of radio waves of a network. Each slice has specific performance features at varied price points. A *network slice* is a logical (virtual) network customized to serve a business purpose or customer. *Network slicing* are logical and virtual networks used for applications, services, users, or networks over a shared infrastructure layer. Network slicing would allow operators to provide different services with different performance characteristics (e.g., prioritization of data packets) to address specific use cases. 5G's paid

prioritization requirement, along with blocking and throttling data, violated the basic principles of net neutrality. In other words, 5G could not function under net neutrality. Net neutrality advocates could not explain how network slicing, a functional necessity under 5G, could be rendered compatible with net neutrality.

7.1.4.2 – Data Packets & the Inconvenience of Jurisdiction – Part II

Arguments for and against the compatibility of data packets and jurisdiction are revisited in this second subsection. Net neutrality advocates in the State of California pass a bill to prevent ISPs from imposing restrictions on first responders during emergencies, for which net neutrality opponents criticize its ambiguity. Net neutrality opponents launch a legal complaint against Democratic ASG California Xavier Becerra about attempting to pass net neutrality legislation. Patchwork state and local laws can logistically impede interstate communication.

Net neutrality advocates in the State of California passed a bill to prevent ISPs from imposing restrictions on first responders during emergencies. Net neutrality opponents pointed out that the bill's claim to have ISPs not impair or degrade Internet traffic was speculative because of routine traffic maintenance. Also, specifying who could declare an emergency was ambiguous. The broad sweeping pronouncements by net neutrality advocates in the form of a bill were vague directives for keeping first responders free from throttling, blocking, and prioritizing data over services during an emergency.

Net neutrality opponents launched a legal complaint against Democratic ASG California Xavier Becerra about attempting to pass net neutrality legislation. The 2018 legislation would undermine the 2017 Order's rules that prohibit states from adopting their own laws. Net neutrality opponents argued that it was impossible or impracticable for ISPs to distinguish between intrastate and interstate communications or to apply different rules. The Internet's

physical hardware components point to geographical locations, but its layered protocols consist of software instructions on rules for how actors and institutions engage with and share data. Is jurisdictional authority solely based on server, consumer, or ISP physical infrastructure location?

Net neutrality opponents were worried that patchwork state and local laws could logistically impede interstate communication. The Internet and Internet access is an interstate commerce affair. Again, is jurisdictional authority solely based on server, consumer, or ISP physical infrastructure location since physical hardware is tied to geography? If an ISP used overlapping physical transmission facilities to supply Internet service to consumers in each state, how can it comply with competing net neutrality laws in different states? This logistical burden on ISPs could inhibit broadband investment and deployment and increase costs to consumers.

7.1.4.3– Defining What is Possible Under Titles I & II – Part II

Arguments for what is (im)possible under Titles I and II are revisited in this third subsection. Net neutrality advocates argue that the FCC used to enforce open access and non-discrimination via Title II (*telecommunications* services) and that DNS (Domain Name System) (i.e., matching names to numbers of a website address) and caching (i.e., the storing of data to load future requests faster and reduce latency) constitute user-directed transmission of information from point to point as a *telecommunication* service. Net neutrality opponents argue that ISPs provide information-processing capabilities via telecommunications but does not separately offer telecommunications and that the FCC treats DNS look-up and caching as a precondition for classifying BIAS (broadband Internet access service) as an *information* service.

The FCC used to enforce open access and non-discrimination via Title II (*telecommunications* services). *Telecommunication* services refers to the “transmission between or among points specified by the user, of information of the user’s choosing, without change in

the form or content of the information as sent and received” (Telecommunications Act of 1996, U.S. Code 47 Sec. 153). DSL (digital subscriber line) carried data and voice transmissions simultaneously along circuit and packet-switch network splits. Packet-switching was a transmission technology where ISPs could set up their own information services but had to offer competing ISPs non-discriminatory access to networks. Net neutrality advocates argued that telephones also offered automated information or an operator who could generate or process information, but the telephone was not an *information* service. Telephony altered information’s form and content between points. Users could not make phone calls without running compatible software; thus, mobile voice service should be deemed a *telecommunication* service.

Net neutrality opponents argued that ISPs provide information-processing capabilities via telecommunications but does not separately offer telecommunications. *Telecommunications* is intertwined with the computer processing, information provision, and computer interactivity capabilities as *information* service offers. *Information* services refers to the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service” (Telecommunications Act of 1996, U.S. Code 47 Sec. 153). Net neutrality opponents argued that an *information* service always and necessarily acts on the information.

The ICANN (Internet Corporation for Assigned Names and Numbers) spawned from the U.S. government’s decision to allow a U.S.-based non-profit corporation to assume “policy and technical management of DNS” with global participants (ICANN, 2022). Net neutrality advocates argued that DNS (i.e., matching names to numbers of a website address) and caching

(i.e., the storing of data to load future requests faster and reduce latency) constituted user-directed transmission of information from point to point as a *telecommunication* service.

However, in the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) ruling, DNS and caching were integrated information-processing capabilities of BIAS. Net neutrality opponents argued that the FCC treated DNS look-up and caching as a precondition for classifying BIAS as an *information* service.

Both net neutrality advocates and opponents agreed that bipartisan legislation should be solidified so net neutrality rules would not continue to be adopted and repealed based on incoming political parties. State government regulation of Internet governance was never agreed on, and thus prevented any bipartisan legislation from ever being solidified. Net neutrality advocates did not agree to permissionless innovation, whereas net neutrality opponents did not agree to granting unelected bureaucrats to have control over an entire industry.

7.1.4.4 – Terms of Service Agreements that Move the Goalposts

In this fourth subsection, we review how the Mendocino Complex wildfire debacle saw Verizon throttling data speeds of Santa Clara Fire Department since it exceeded its monthly limit. Verizon did not violate net neutrality principles, but the department had no recourse to file a complaint with the FCC for unjust or unreasonable prices and practices under the 2017 Order. Net neutrality opponents rationalize that customers contractually enter into terms of service agreements with ISPs, but net neutrality advocates fear that ISPs could evade FTC recourse by adding new provisions to block, throttle, and prioritize data packets. I end by detailing how there is a lack of attention paid to how crucial the user is in the operationalization of data packets and the continued functioning of the Web, and thereby the need to govern technological exchanges.

During the Mendocino Complex wildfire, Verizon throttled data speeds of Santa Clara Fire Department since it exceeded its monthly limit, which affected its vehicle's functionality. Verizon was accused of risking harm to public safety. Verizon told the department to upgrade to a twice as expensive data plan. Verizon technically did not violate net neutrality principles, but the department had no recourse to file a complaint with the FCC for unjust or unreasonable prices and practices under the 2017 Order.

Net neutrality opponents rationalized that all customers contractually agree to reduced data speeds when exceeding their monthly limits. Shaping data traffic to avoid network congestion can bring higher quality of service. The department should have invoked the policy on suspension of the speed restriction or switched to a plan without a speed restriction. Whether Verizon accurately communicated how these options worked is a question of consumer protection law addressed by the FTC. Verizon cited a communication user service error and full-service should have been immediately restored since the department was responding to an emergency. Verizon apologized, put fixes in place, and sent executives to the California legislature to testify. Verizon eventually rolled out a new plan for first responders that have no speed restrictions at no additional charge. An ISP's terms of service agreements could be held as a standard accountable to users. Users could call out an ISP for violating or changing its own agreements and the corporation would have to answer for its actions in quarterly shareholder meetings and media interview requests. However, net neutrality advocates argued that ISPs could evade FTC recourse by adding new provisions to block, throttle, and prioritize data packets.

One identifiable silence in the NVivo datasets was a lack of attention paid to how crucial the user was in the operationalization of data packets and the continued functioning of the Web, and thereby the need to govern such technological exchanges. Delivery of data packets started

and ended with the user. And how the user interfaced with the data packets was tied to the concept of paid prioritization. Data packet delivery was inescapable from the prioritization of packets as an entity and the delivery of that entity. Yet, the entire Internet ecosystem, and all connective net neutrality issues, disappeared without focus on the social actor. Legal outcomes, regulatory agencies, financial investments, market competition, 5G, jurisdiction -- essentially all 57 clusters produced by net neutrality advocates and opponents in NVivo -- become meaningless without users buying tickets for admission to the Web. The point was obvious: businesses perish without users. I will attempt to give a brief analogy to help further explain.

Sports complexes inked sponsorship deals with beer companies for brand recognition and sales. Patrons (i.e., ISP users) who entered into the sports complex (i.e., the ISP) may wish to drink the sponsored beer product (i.e., website or application service). There may be fees to access the website or application service, but paying for BIAS (broadband Internet access service) had to happen first. Sometimes, the sports complex was a direct partner with the sponsored company, such as “Coors Field” in Denver, Colorado where Major League Baseball’s Colorado Rockies played or “T-Mobile Park” in Seattle, Washington where Major League Baseball’s Seattle Mariners played. Stadium authority management groups sometimes owned and operated the stadium. The cost to build and run the facility could be drawn from private funds and public taxpayer dollars. So, while “T-Mobile Park” entered into the naming rights of the stadium in Seattle, Washington, Washington-King County Stadium Authority owned the stadium property and managed the funds that governed the construction and operation of the stadium. For T-Mobile to partner with the stadium authority management group, team owners, marketing directors, and other entities that oversaw sponsorship and co-sponsorship deals would not be considered discriminatory or anti-competitive. Corporate sponsorship was a standard

practice of competition for promoting product and service awareness to users. Yet, corporate sponsorship did not enter the equation without the building and operationalization of the stadium, which was largely funded by taxpayer dollars.

Purchasing sports tickets influenced the continued operation of events in stadiums. Tax dollars and the decision to buy into the product or service depended on the tax-paying and enthusiastic individual. Access to BIAS by ISPs and the value placed on the products and services from edge providers could only continue with the operationalization of routers and cellular towers. Users bought and/or accessed routers and modems (or modem-router combinations) and/or paid to access cellular tower signals to participate in accessing online content, applications, platforms, services, and/or devices. The Web needed routers and cellular towers to operate the transfer of data packets from client to user 24-hours a day. Larger ISPs could merge with smaller ISPs and grow a loyal user base, which was not unethical or illegal to aim for or achieve under antitrust laws. Paid prioritization allowed different types of goods and services to be priced lower or higher to fit different budgets, which could be tied to quality of service and speed. Even user reviews could positively or negatively influence whether other users buy into an ISP's goods and services. The user was clearly important in the net neutrality debates, regardless of its absence in the data.

7.1.5 – How Internet Governance Reflected U.S. Norms, Values, & Rights in Ways that Supported the Expansion of U.S. Economic Power

Section 7.1.5 will consider how Internet governance reflected U.S. norms, values, and rights in ways that support the expansion of U.S. economic power. This section will consider how net neutrality advocates and opponents question the degree to which state governments should intervene in the corporate pursuit of profits and how walled gardens govern data packets

and the Web. First, paid prioritization of faster, more secure (lossless) data packets is perceived either as an unfair market practice or part and parcel of a healthy competitive market. There are discrepancies between net neutrality advocates and opponents over competition and how Title II regulation influenced ISPs' capital investments and expenditures. Net neutrality opponents argue that less state government interventions in corporate affairs would mean more innovation and risk-taking in investments by corporations, while net neutrality advocates are concerned about the role of state governments intervening in consumer markets that host monopolies.

Second, if ISPs are the gatekeepers of controlling content, applications, and service delivery, net neutrality advocates believe that the Internet market would become so saturated with monopolies that competition and thus innovation would become minimized. Net neutrality opponents argue that offering continued access to proprietary (walled garden) content and applications meant paying less in monthly bills and allowing low-income consumers to enjoy content and applications. All content providers, application providers, and ISPs are gatekeepers.

7.1.5.1 – Participating in the Pursuit of Profits: How Much Should State Government Intervene?

In this first subsection, we review how paid prioritization of faster, more secure (lossless) data packets is perceived either as an unfair market practice or part and parcel of a healthy competitive market. There are discrepancies between net neutrality advocates and opponents over competition and how Title II regulation influenced ISPs' capital investments and expenditures. Net neutrality opponents argue that less state government interventions in corporate affairs would mean more innovation and risk-taking in investments by corporations, while net neutrality advocates are concerned about the role of state governments intervening in consumer markets that host monopolies.

Paid prioritization of faster, more secure (lossless) data packets was either perceived as an unfair market practice or part and parcel of a healthy competitive market. Participating in the pursuit of profits was an aim the U.S. Internet market economy could not lose sight of. Whether and to what extent Internet governance could influence paid prioritization of data packets proved contentious. Net neutrality advocates argued that paid prioritization could exclude some consumers from experiencing connection altogether or at least reliable connection.

Competition was when output is maximized, price is minimized, and consumers can make their own choices. Net neutrality opponents would defer to arguing how paid prioritization was one of many ingredients baked into the code of corporations achieving and maintaining a monopoly control. The means to pursue profits is fair in the sense that anyone can attempt to create a monopoly in the Internet market. Yet, the very gesture of competing with market players to become one of the remaining few breeds exclusion. High profit margins are revealed when reviewing what ISPs charge customers per month, minus what it costs to operate the Internet service. Add corporate mergers to the mix of the monopoly equation and one can infer the near impossibility of breaking up corporate control once corporations achieve monopoly status. Net neutrality advocates' idealized statements, like 'an equally accessible Internet without tiered levels of payment structures should be the norm' were impractical. Equality was impossible with competition part of the equation. Vertical competition produced winners and losers, from large telecom ISP corporations to the single solitary data packet fighting to reach its destination amongst a queue of data packets.

There were discrepancies between net neutrality advocates and opponents over how Title II regulation influenced ISPs' capital investments and expenditures. Why were there quarrels over reported numbers about infrastructure and financial investments and expenditures? Either

that number was the truly calculated and represented number or it was not. Not once in the NVivo datasets did the methodology of calculation come through to explain precisely how economists' studies arrived at their results. Citing investment statistics was one way to argue for or against the potential impact Title II regulation had on ISPs' decisions about past, present, and future infrastructure and financial investments.

Net neutrality opponents argued that less state government interventions in corporate affairs would mean more innovation and risk-taking in investments by corporations. ISPs would use extreme caution in exercising innovative business plans that might violate the FCC's undisclosed policies. Even if the FCC disclosed Title II regulation, there would be a risk premium on each investment decision, meaning the calculated amount by which the market return exceeds the risk-free rate. The market return (e.g., 10 percent) subtracted by the risk-free rate (e.g., three percent) equals the risk premium (e.g., seven percent). The only time when state governments should intervene in governing the Web and data packets is when there is overwhelming market failure.

Net neutrality advocates were gravely concerned about the role of state governments intervening in consumer markets that hosted monopolies. Antitrust laws were meant to peel back the concentrated market power of a small group of corporations. The spirit and practice of competition dwindles with such intense concentration in the Internet market economy. Democratic Party members cited the creation of patents, the standardizing of technology platforms, the repetitive litigation against rivals, and gaining political support from lobbyists as some of the techniques to achieve the expansion of economic power. However, Republican Party members widely held the view that antitrust laws should uphold the spirit and practice of competition, not tailored legal intervention of any one enterprise or group of enterprises. Striving

for monopoly, or at the very least fair competition, was a key value in pursuing profits without the slow-paced decision-making processing and results of FCC intervention.

7.1.5.2 – Keeping the Gate Closed

In this second subsection, we review how if ISPs are the gatekeepers of controlling content, applications, and service delivery, net neutrality advocates believe that the Internet market would become so saturated with monopolies that competition and thus innovation would become minimized. Net neutrality opponents argue that offering continued access to proprietary (walled garden) content and applications meant paying less in monthly bills and allowing low-income consumers to enjoy content and applications. All content providers, application providers, and ISPs are gatekeepers.

If ISPs were the gatekeepers of controlling content, applications, and service delivery, net neutrality advocates believed that the Internet market would become so saturated with monopolies that competition and thus innovation would become minimized. Keeping the gate closed to discourage and disallow Internet market players from playing in the market was one way to promote the content ISPs wanted consumers to consume and keep building and maintaining infrastructure in untapped or competitive locations.

Even though there were approximately 4,500 ISPs to choose from in 2017, some of the rural-based ISPs were subsidiaries of larger ISPs or were independently owned and operated but lacked the bandwidth to provide highspeed services. For rural-based ISPs to compete with the millions of household subscribers that larger ISPs locked in created barriers for new entrants or smaller ISPs to compete with larger ISPs. Larger ISPs accumulated greater resources than smaller ISPs, such as more patents, standard platforms and services, lawyers, lobbyists, marketing, employees, shareholders, and physical infrastructure. Were users really going to

choose a smaller ISP to have worse quality of service than a larger ISP if it was cheaper per month? Would users know upfront that the smaller ISP was a subsidiary of a larger ISP?

Competition did exist, but it existed as a wolf in sheep's clothing. The wolf was a representation of the territorial-defending, smaller-animal-preyed-upon carnivore that travelled as a pack. The ISP defended its territorial acquisition of users (i.e., food) by devouring or using as bait smaller animals to draw in more users. The devouring of smaller animals (i.e., merger acquisitions) to become stronger and to shrink the competition, the use of smaller animals as bait for food, and allowing smaller animals to hunt and capture its own food to make it appear as though the food chain was operating in a neutral and fair way represented the sheep's clothing.

The lack of consumer choice in ISPs played well into the hands of ISPs since many consumers considered paying for higher tiered service plans. ISPs offered zero rating to consumers -- a walled garden of content and application accessibility despite reaching monthly data caps. Offering continued access to proprietary content and applications meant either: (i) exclusion to other content and applications or (ii) paying less in monthly bills and allowing low-income consumers to still enjoy content and applications. Net neutrality opponents argued that banning zero rating plans infringed on ISPs' rights to freely expand their economic power.

Another example of extreme bias in offering media consumption services was the concern over Republican FCC Chairman Ajit Pai's influential ties to Sinclair Broadcast Group. Net neutrality advocates feared that a Sinclair-Tribune corporate merger approval would mean an overload of conservative media bias in over 70 percent of U.S. households. Whether it be media content bias, search engine results bias, or author bias, it seemed that all content providers, application providers, and ISPs were gatekeepers. With gatekeeping, bias is entrenched in who gets to access content and applications and how consumers can interact with content and

applications. Net neutrality opponents were not about to allow the FCC to decide the Internet market economy landscape of gatekeepers in all their capacities.

7.2 – Chapter Summary

Section 7.1.1 examined how net neutrality advocates and opponents framed their discursive strategies. Net neutrality advocates pointed to the mischaracterizing of history about how the Internet was never an oasis of deregulation and how the net neutrality debates misalign with the Fairness Doctrine.

The use of analogies and popular cultural references by net neutrality advocates and opponents showed how ideas were privileged. Net neutrality advocates criticized the FCC's allowance of paid prioritization and criticized ISPs to explain: market dominance; quality of service; tiered pricing, blocking, and throttling services; setting fair competition parameters; delivering data packets; broadband becoming edge providers; corporate and political collusion; and changing the data packet structure. Net neutrality opponents criticized the FCC's regulatory capriciousness to explain: the Democratic Obama Administration's direct governance over the FCC; the FCC's tribal domination over ISPs; how online experience would not change after the 2017 Order took effect; the overzealous authority the FCC had over ISPs; the superiority of the FTC in comparison; and a call for deregulation.

The clash of rights between citizens or users and ISPs were also examined. Net neutrality advocates and opponents fought over how net neutrality could shape the digital divide in the U.S. Net neutrality advocates argued for the rights of low-income and racialized citizens, while net neutrality opponents argued for the rights of private companies to conduct their business free from regulatory intervention.

Section 7.1.2 explored how formal law frameworks (empirical and normative – ‘according to law and regulation as they are and ought to be’) governed data packets and the Web. Net neutrality opponents promoted antitrust laws, compared to net neutrality advocates who promoted bright-line rules. The enforcement coverage of both legal frameworks addressed protecting competition and consumer harms.

Net neutrality advocates and opponents advanced legal and regulatory strategies to keep state government oversight accountable via jurisdiction. State versus federal jurisdictional power and the specific laws and regulations (i.e., exceptions, U.S. Codes, and acts) used to maintain governance over data packets and control of the Web were contested.

Net neutrality advocates argued that *telecommunication* and *information* services were mutually exclusive, while net neutrality opponents argued that a stand-alone offering of *telecommunications* to consumers was an inaccurate view of how consumers access BIAS (broadband Internet access service). Data transmissions could be integrated with the finished service to describe both as an integrated offering, so consumers utilized the data transmissions in connection with *information*-processing.

Net neutrality advocates and opponents questioned how the FCC divided tasks amongst its hired researchers and analysts to decide whether and how to incorporate comment submissions into its final decision to repeal net neutrality in the ECFS (Electronic Comment Filing System) process. The fraudulent comments suggested an attempt to mislead the FCC. FOIA (Freedom of Information Act) requests were filed to establish to what extent ECFS records should be released to investigative journalists. The effects of the relinquishing of the FCC’s own authority to impose conduct rules on ISPs were also examined.

Section 7.1.3 assessed how formal regulation frameworks (empirical and normative – ‘according to law and regulation as they are and ought to be’) governed data packets and the Web. Net neutrality advocates questioned the purpose and effectiveness of the FCC and its ECFS process. Net neutrality advocates defended how the FCC ought to adjudicate complaints on a case-by-case basis to see if broadband providers were in line with an Internet reasonable conduct standard for regulatory guidance. The FTC was viewed by net neutrality opponents as being more practical in analyzing consumer harms and conducting marketplace competition analyses to indicate business competitor harms.

Net neutrality opponents argued that regulatory compliance costs would be burdensome for ISPs and that being neutral in organizing data packets was impossible, making state regulation redundant. A utility-style regulatory framework was outmoded. Net neutrality advocates believed that Republican FCC Chairman Ajit Pai would give ISPs the ability to increase prices for Internet access; therefore, regulation was necessary since ISPs used legal and regulatory tools (patents and high-priced lawyers), political and economic tools (purchasing lobbyists), and technological tools (standardizing platforms) to dominate market sectors.

Section 7.1.4 evaluated how non-normative frameworks (technological management and solutions – ‘according to what law and regulation can and cannot do’) governed data packets and the Web. Net neutrality advocates and opponents fought over how data packets control networks through governing techno-logistics (i.e., the operations, interfaces, and packaging and delivery of the final product and its intended uses), including packet switching networks, content delivery networks, deep packet inspection, and 5G broadband cellular networks.

Arguments about the compatibility of data packets and jurisdiction were revisited. Net neutrality advocates in the State of California passed a bill to prevent ISPs from imposing

restrictions on first responders during emergencies; net neutrality opponents criticized its ambiguity. Net neutrality opponents launched a legal complaint against Democratic ASG California Becerra about attempting to pass net neutrality legislation. Patchwork state and local laws could impede interstate communication.

Arguments for what was (im)possible under Titles I and II were also revisited. Net neutrality advocates argued that the FCC used to enforce open access and non-discrimination via *telecommunications* services and that DNS (Domain Name System) (i.e., matching names to numbers of a website address) and caching (i.e., the storing of data to load future requests faster and reduce latency) constituted user-directed transmission of information from point to point as a *telecommunication* service. Net neutrality opponents argued that ISPs provided information-processing capabilities via telecommunications but did not separately offer telecommunications and that the FCC treated DNS look-up and caching as a precondition for classifying BIAS as an *information* service.

The Mendocino Complex wildfire saw Verizon throttling data speeds of Santa Clara Fire Department since it exceeded its monthly limit. Verizon did not violate net neutrality principles, but the department had no recourse to file a complaint with the FCC for unjust or unreasonable prices and practices. Net neutrality opponents rationalized that customers entered into terms of service agreements with ISPs, but net neutrality advocates feared that ISPs could evade FTC recourse by adding new provisions to violate net neutrality principles. Overall, there was a lack of attention paid to how crucial the user was in the operationalization of data packets and the functioning of the Web, and thereby the need to govern technological exchanges.

Section 7.1.5 considered how Internet governance reflected U.S. norms, values, and rights in ways that support the expansion of U.S. economic power. Paid prioritization of faster,

more secure (lossless) data packets was perceived as an unfair market practice or part and parcel of a healthy competitive market. Ideas about competition and how Title II regulation influenced ISPs' capital investments and expenditures were disputed. Net neutrality opponents argued that less state government interventions would mean more corporate innovation and risk-taking in investments, while net neutrality advocates were concerned about the role of state governments intervening in monopoly-run consumer markets.

If ISPs were the gatekeepers of controlling content, applications, and service delivery, net neutrality advocates believed that the Internet market would be monopoly-saturated, so competition and innovation would be minimized. Net neutrality opponents argued that offering continued access to proprietary (walled garden) content and applications meant paying less in monthly bills and allowing low-income consumers to enjoy content and applications. All content providers, application providers, and ISPs were gatekeepers.

Chapter 8 – Drawing Conclusions Inside the Net Neutrality Saga

8.1 – What the 2017–2020 Net Neutrality Debates Told Us About Governing Data Packets & the Web

Chapter 8 will serve as a space of reflection and critical commentary on the dissertation's theoretical and empirical contributions. The conclusions at the end of the four findings chapters supplied a summary of the findings and the meaning and importance of the narrative threads explored. Narratives are written into a linear plot that point to questions, implications, and conclusions, while stories are about the way we speak about events (Brooks, 2003, p. 73; p. 95). Narratives are the production and reception of stories, while stories refer to communicating events whose plots are intended to bring an issue to realization (Baron & Epstein, 1997, p. 147). This dissertation was about how actors and institutions construct, receive, and react to stories to influence change (Brooks, 2002, p. 3).

The four findings chapter summaries narrowed the content into manageable takeaways. Chapter 7 was a summary of the summaries and drew more detailed analytical conclusions that addressed the research questions. The end-of-chapter summaries and analyses were framed in terms of what the socio-legal narratives meant for addressing the three research questions and incorporated relevant literature to help develop my arguments. Chapter 8 will present my contributions theoretically and empirically and highlight socio-legal implications of the U.S. net neutrality debates across the economics, technology, politics, and law and regulation themes.

Section 8.1 begins with a conversation that summarizes how themes and narratives were captured in the dissertation, along with identifying how actors built and contested arguments to promote a “more just Web.” The actors themselves, the content of their ideas, concepts, issues, and arguments, and the effects of narratives were included in the socio-legal analysis. I also

discuss how facts and numbers are almost always couched within broader narratives driven by fear and anxiety around dire outcomes.

Socio-legal scholars can uniquely describe themes that have dominant narratives. For instance, a narrative could be dominant by the number of times the argument appeared. Themes should include narratives that could be validated by the actor communicating the idea, concept, issue, and argument. Describing the themes with the kaleidoscope of contestations between net neutrality advocates and opponents was key. The dynamics of the contestations between both sides were depicted. My conceptualization of the narratives stemmed from my conceptualization of the data. The Web-scraped data, which had many narratives built into its published form already, were strung apart and reorganized by me. The narrative elements were extracted and placed into containers that were collections of similar narratives that could be strung together. The narrative pieces could be sculpted by my voice to make sense of net neutrality advocates and opponents' arguments, regardless of content format.

Examining the initiators behind repealing or promoting laws and regulations and technological management and solutions may help to locate the authority actors had over others, including competing actors in the same field. Seeking out the contestation over competing claims, and understanding how competing sides understood one another's arguments and advanced their own, was part of a socio-legal analysis. One side could respond to claims that matched that one side's perspectives. While it was crucial for me to find commonality across actor opinions to build the nuance in arguments, it was equally crucial to mix commonality with division carved by the opposing side. The deferred actor opinions in a courtroom setting or the outrage expressed by television show hosts influenced the claims and counterclaims about governing data packets and the Web.

Net neutrality advocates and opponents had different conceptualizations for what good governance looked like in promoting a “more just Web.” A “more just Web” could mean gaining a wider reach to low-income and racialized communities to participate in networking, better productivity, and workflow in access to information for businesses, students, and researchers, greater investment incentives and profitability on returns for ISPs, more opportunities for small scale and start-up businesses to reach target users, and another avenue for accessing free speech in sharing ideas and identities. The different ways in which net neutrality advocates and opponents made their arguments in different contexts and at different times amongst themselves and between the two sides was done through debates. Sometimes, arguments were direct responses to questions. Arguments were also presented alone against a ghost -- one who could not immediately respond back. And arguments were made by different actors, housed under different settings and spaces, presented at an earlier or later date, referenced under contexts that had yet to unfold or had already unfolded.

The popular few speaking on behalf of the many found themselves attracted to a side that had a stance with itemized points that formed the basis of arguments. Actors could have a conversation with themselves without a physical opponent to defend their arguments (usually by referring to their opponents’ arguments in the third-person) or going head-to-head by challenging opponents’ arguments in real-time. Actors used laws, bills, acts, legal efforts, legislations, regulations, policies, orders, and classifications to root their arguments in written fact and base legal and policy outcomes on precedent. For example, Democratic Party leaders argued for states to have control over regulation of broadband access rules. Or technology industry leaders tried and failed to reclassify Title I by seeking court justice. Both instances were strategies of actors to convince their peers (foes or otherwise) and judges (in the judicial sense and public audience

support sense of the term) that certain laws and regulations and technological management and solutions could amount to legitimate changes for how data packets and the Web should be governed. The end goal of communicators was to have others accept the legal and regulatory and technological management and solution outcomes as the optimal way to engage with ISP, regulatory, and public (in)actions surrounding net neutrality.

By conducting a narratology of law and regulation and technological management and solutions, the debates were about understanding how ideas, concepts, issues, and arguments were being formulated, expressed, retracted, spoken of once or a few times, accepted, and dismissed. To peer into the ideas, concepts, issues, and arguments and organize them as ‘net neutrality advocates’ and ‘net neutrality opponents’ made it easier to condense the debates between two adversarial groups. However, many actors expressed ideas that brought elements together that were traditionally positioned as either one side or the other.

The partisan divide and contestation between progressives and pro-market conservatives ran through each findings chapter. The highly partisan nature of the net neutrality debates saw mostly Democrats occupying the side of net neutrality advocates and mostly Republicans occupying the side of net neutrality opponents. Republican President Donald Trump’s reign heightened the net neutrality debates, especially since the Trump administration looked to reverse many Democratic President Barack Obama-era rules. The politically partisan backgrounds of net neutrality advocates and opponents were identified to highlight the division in U.S. ideals. Thus, tracing actors and institutions by their background and affiliations and political parties was important. Moreover, the content of the dialogue, what actors said in the narrative, was important to describe. Lastly, the outcome of each narrative, whether a resolution was reached or not between net neutrality advocates and opponents, was integral to bring clarity

to the arguments. Altogether, the actors themselves, the content of their ideas, concepts, issues, and arguments, and the effects of the narrative were included in the socio-legal analysis.

I wanted to question how truth proclamations become produced (see Jørgensen and Phillips, 2002, p. 14). This was not to say that I tried to search for precise answers to questions to arrive at some objective truth. Rather, I tried to document how arguments were formulated and explained to convince others of their positions. Actors and institutions were fighting for control over the fate of data packet and Web governance, but definitive control was never achieved. Controlling the narrative can be powerful. Facts and numbers can give context and reveal the status of a given situation, but facts and numbers are almost always couched within broader narratives driven by emotional energies like fear and anxiety around dire outcomes.

Summarizing the three research aims will lay the groundwork for identifying my research findings and research arguments. The first research aim in the dissertation was to identify and describe net neutrality in light of socio-legal narratives and stories through the construction and representation of ideas, concepts, issues, and arguments related to the governance of data packets and the Web. The second research aim was to examine how formal law and regulation frameworks (i.e., empirical and normative – ‘according to law and regulation as they are and ought to be’) and non-normative frameworks (i.e., technological management and solutions – ‘according to what law and regulation can and cannot do’) govern data packets and the Web. The third research aim explored how formal law and regulation frameworks and non-normative frameworks reflect U.S. norms, values, and rights that support the expansion of U.S. economic power. The rest of section 8.1 provides an overview that identifies my research findings and research arguments, along with an afterword to bring some closure to strings of narratives, actors, and institutions presented in the dissertation.

In Section 8.2, we explore how net neutrality advocates and opponents relied on discursive strategies to:

- Prove what is true and historic fact.
- Expose logical leaps and incite negative emotions.
- Detest political influence and control.
- Promote economic freedoms.
- Disclose how the FCC is a useless or essential regulator.
- Establish criteria for people to upgrade technologies to harness digital skills and human development.

In Section 8.3, we study how the nature and effectiveness of formal law and regulation versus non-normative frameworks identified the:

- Interpretation of laws and regulations and contesting of state versus federal jurisdictions through exceptions, U.S. Codes, and acts.
- Offering of a space for industry experts to debate and counsel the FCC and politicians on whether and to what extent Title II should be repealed.
- Proposing of a centrist solution where ISPs offer and charge for enhanced or tiered services and regulators provide regulatory and legal checks. The FCC and the FTC could unite to pre-empt and react to harmful ISP practices.
- Failure of laws and regulations to adapt and align with data packet management logistics.
- Slow alignment of laws and regulations and forgetful embrace of humanistic protections by technological management and solutions. Law works best as a blanketed legacy of standards. Regulation works best at addressing societal concerns to alter behaviours and mitigate harms. Technological management and solutions work best at becoming more adaptive, efficient, secure, convenient, recyclable, affordable, and faster across time for humans.
- Law and regulation should direct and adapt to technological management and solutions, where regulation can combine local to supranational public governance with actor and institution non-state private governance.

In Section 8.4, we consider how net neutrality advocates and opponents argued how U.S. norms, values, and rights metastasize U.S. economic power through:

- Gatekeeping access and interaction with content and applications and exclusion of consumers and competitors.
- Monopolistic control.
- ISP-projected and reported infrastructure and financial investment numbers.

Section 8.5 serves as an afterword to bring some closure to strings of narratives, actors, and institutions presented in the dissertation. I outline the FCC's response to the COVID-19

pandemic with the Emergency Broadband Benefit (now the Affordable Connectivity Program), which helps struggling U.S. households to connect online and close the digital divide. The FCC's C-Band auction will show how large ISPs attempted to secure 5G service rollout in the future. Next, I give an update on FCC chairs and commissioners. I then reveal the damning New York Attorney General's report about how the FCC's fraudulently-submitted comments were sent by one individual using a fake name and email address generator to support Title II and by anti-regulation advocacy groups hired by large ISPs to influence support to repeal Title II. Trust, openness, and accountability of ISP, bureaucrat, and elected representative practices are questioned. Chapter 8 ends with a prospect of accessing, consuming, and sharing ideas over future online networks.

8.2 – Relying on Discursive Strategies

In Section 8.2, we explore how net neutrality advocates and opponents relied on discursive strategies to:

- Prove what is true and historic fact.
- Expose logical leaps and incite negative emotions.
- Detest political influence and control.
- Promote economic freedoms.
- Disclose how the FCC is a useless or essential regulator.
- Establish criteria for people to upgrade technologies to harness digital skills and human development.

A narratology focuses on the production and reception of stories and communicating events whose plots are intended to bring arguments for and against net neutrality to realization. This was done through discursive strategies to convince audiences to believe in discourses. Actors and institutions were objects of political strategies echoed by progressive and conservative media platforms. These media platforms struggled to control the narrative about governing data packets and the Web. Discursive strategies were used to try to synthesize

complex material to simplify through past reflections, comparative similarities and differences, and broader social rights arguably guaranteed to actors and institutions.

Net neutrality advocates and opponents framed discursive strategies by calling out the mischaracterization of history. Referring to specific historic facts were used to correct the narratives that the Internet was an oasis of deregulation in the beginning and that net neutrality was equated to the Fairness Doctrine. Net neutrality advocates, in both instances, took it upon themselves to carefully dismantle these embellished statements. To add context to better inform the audience of what was true and historic fact was important to squash misrepresented or misleading statements. Net neutrality opponents, in both instances, were said or written hastily and were confrontational in the sense that the oasis of deregulation was becoming more militant under FCC watch and that net neutrality would censor conservative media and free speech. Net neutrality opponents made logical leaps, or non sequiturs, between an oasis of deregulation to militant regulation and net neutrality principles as freedom of speech retraction. These were shock values used to highlight the dangers of net neutrality. In this case, net neutrality opponents used ideas to incite a reaction of negative emotions, usually fear.

Analogies and popular cultural references were used to understand seemingly complicated and intricate information. Attributions were made to real-life situations to show a double standard or causes and effects if alternatives were adopted. Ideas were portrayed in a way the audience was supposed to recognize the connections between effects net neutrality principles had on governing data packets and the Web. Ideas were made to be privileged over others, especially about equality. For instance, net neutrality advocates argued that paid prioritization was a means to bypass fair competition; all ISPs ought to play on an even playing field. They were fearful that if there was unfair and closed competition for all players, corporate and political

collusion might transpire to controlling narratives through content. This was the very argument made against net neutrality opponents about the Fairness Doctrine. Net neutrality advocates also said that changing the data packet structure did not alter content. Both net neutrality advocates and opponents agreed that content should not be politically influenced and controlled by those directing the flow of data packets and the Web; that is, regulatory agencies and ISPs.

Net neutrality opponents argued that laws and regulations had no business editorializing content. It is more difficult for smaller ISPs to compete with larger ISPs since the latter is in such a dominant BIAS (broadband Internet access service)-coverage position, but this does not negate the fact that ISPs have the freedom to act in the best interest of pursuing profits. Net neutrality opponents held this view and explained that corporate strategies provide tiered customer pricing for faster service, discounts that undercut smaller ISPs, and privileged content on streaming platforms. Moreover, the FCC was an unnecessary regulatory agency for several reasons. The FCC's potential to declare what the previous FCC did was null and void and proceed with its Order was viewed as erratic. The clash over Titles I and II prompted tribalism across both sides of the political aisle. Adopting a less state government-intervening role to allow the market to self-regulate could have been done by the FTC instead of the FCC; deregulation could remove price controls on ISPs and bar states from adopting their own net neutrality principles.

Discursive strategy failures mainly resided with net neutrality opponents. Scripted public service announcements by net neutrality opponents were abysmal in getting their references and truths across to audiences. Many popular cultural references made to things that were popular in December 2017 were not popular today when showcasing what could still be done online after the 2017 Order came to pass. As well, a misguided scripted question-and-answer interview with Verizon's CEO about the overzealous authoritative power the FCC has under Title II regulation

was easily dismantled by net neutrality advocates to the point where the video was removed. Lastly, a leap in logic happened again by net neutrality opponents when they compared the deregulation of the airline industry having the same effects on the BIAS industry; it was simply impossible to predict an effect in one market repeating in another.

The last set of discursive strategies that were framed was the clash of rights, usually conveyed about the rights of citizens or users and ISPs. Net neutrality opponents emphasized that regulations were constraining and that corporations should be free to choose how to control their networks, including expressing content favouritism. ISPs had rights to set sliding customer-paying terms of data usage, but ISPs would not commit to virtual redlining -- deploying broadband technologies in more economically privileged neighbourhoods. Net neutrality opponents were more concerned with first amendment rights than economic inequality for low income and racialized classes. A free and open Internet would mean economic freedom for ISPs.

Net neutrality advocates argued that FCC regulations could allow for more ISPs to compete, driving prices down and quality of service up. Broadband investments in low income and racialized neighbourhoods could lift marginalized voices if paired with decently working devices. More than simply identifying who has access and who does not, Ragnedda (2017) argues that a secondary and tertiary level of categorization of the digital divide is based on (i) the different uses of the Internet with a gap in digital skills and capital and (ii) “reinvesting in the social realm, valuable information, and knowledge acquired online” (p. 23). Actors should have the opportunity to take control of their own abilities to influence, help themselves and the groups they belong to, and choose their own cultural lifestyles (p. 50).

Yet, precisely what is the dividing line in the digital divide when discussing access to BIAS? Does a user who has a choice between four poorly user-rated ISPs belong in the ‘have-

notes' group in the digital divide? Clearly, the user has choice in this scenario, albeit a choice between four poorly rated ISPs, but a choice nonetheless. What is the criteria to cross between the threshold of the digital dividing line? Is the digital dividing line marked around user affordability, user take-home income, racial identity, numbers of ISPs to choose from regardless of quality, approval for ISP permit dig sites to lay fibre optic cable, type of BIAS availability, number of household members fighting over the same computing device to complete tomorrow's homework? One could argue that the digital divide is relative on a case-by-case basis. I argue that there should be some criteria to consider whether a family, group, or neighbourhood is deprived of choice of ISPs and quality of access to the Web, including the two levels identified above by Ragnedda (2017): (i) digital skills and capital and (ii) reinvesting in the collective, beneficial information, and knowledge. This way, specific families, groups, and neighbourhoods can more easily be identified and reached through city, county, and statewide policy initiatives to upgrade availability to digital tools, platforms, devices, services, and applications first, then given steps to harness digital skills and grow their human development to contribute to society, pursue useful information, and expand personal knowledge.

8.3 – The Nature & Effectiveness of Formal Law & Regulation vs Non-Normative Frameworks

In Section 8.3, we study how the nature and effectiveness of formal law and regulation versus non-normative frameworks identified the:

- Interpretation of laws and regulations and contesting of state versus federal jurisdictions through exceptions, U.S. Codes, and acts.
- Offering of a space for industry experts to debate and counsel the FCC and politicians on whether and to what extent Title II should be repealed.
- Proposing of a centrist solution where ISPs offer and charge for enhanced or tiered services and regulators provide regulatory and legal checks. The FCC and the FTC could unite to pre-empt and react to harmful ISP practices.
- Failure of laws and regulations to adapt and align with data packet management logistics.

- Slow alignment of laws and regulations and forgetful embrace of humanistic protections by technological management and solutions. Law works best as a blanketed legacy of standards. Regulation works best at addressing societal concerns to alter behaviours and mitigate harms. Technological management and solutions work best at becoming more adaptive, efficient, secure, convenient, recyclable, affordable, and faster across time for humans.
- Law and regulation should direct and adapt to technological management and solutions, where regulation can combine local to supranational public governance with actor and institution non-state private governance.

To construct a socio-legal analysis in the net neutrality debates, I drew on Max Weber's (1978) *formal rationality* conception of law, which provides predictability, calculability, and stability in society and sees law as impartial in applying internally-generated rules across cases. My own characterization of *formal rationality* as 'formal law and regulation' merged 'according to the law as it is' and 'according to the law as it ought to be' and comprised empirical and normative components. The empirical component questions what the role of law and regulation is for the governing of data packets and the Web and assesses legal and regulatory facts, proscriptions, and outcomes anticipated by arguing for or against net neutrality principles. The normative component questions how actors and institutions understand the role of law and regulation and how they disagree with others about how and to what extent data packets and the Web ought to be governed and assesses value-judgement narratives and stories. Coherentists pushed for the adherence to legal doctrine where "existing legal categories" could be applied to new technologies (Brownsword, 2020, p. 32). Law functions to employ ex-post "corrections and compensation" by enforcing "legal concepts, categories, and classifications" (p. 32). Brownsword (2012, p. 251) called this framework Law 1.0 and embodies "top-down" regulatory intervention strategies.

Most of the settings and cases actors referred to came from judicial rulings. Even if the nature of a debate was on policies in a Senate hearing, the Senate hearing still represented a

formal rational legal system with procedures to abide by. The Senate procedures were lawfully enforced. Using law and regulation could have included deferring to U.S. Supreme Court decisions, using antitrust law to calm anxiety around corporate acquisitions and walled gardens, and using FOIA (Freedom of Information Act) requests as a method to retrieve privately-held FCC server data. In most narratives, it was not that actors were challenging the legal outcomes or rulings of case law. Instead, actors were challenging the interpretation of laws and regulations. Some actors would quarrel over definitions and classifications, but only for the purpose of developing their interpretations of definitions and classifications within the context of legal and regulatory decisions. Overall, why did actors put so much faith in law and regulation to achieve their ends knowing that law and regulation sometimes failed to atone for shifts in economic, technology, and political landscapes, be they corporate makeup, new inventions and capabilities, or democratically-elected party ideologies?

In evaluating antitrust laws, net neutrality opponents held the position that there are built-in protections that prohibit competitor agreements that reduce competition, and that factual evidence of market power problems or consumer harms are required. Antitrust laws are applied on a case-specific basis, and clear enforcement would deter corporations from recidivism. By contrast, net neutrality advocates criticized the burden of time, cost, and effort, including exacting proof, to build and see through a legal complaint. Antitrust laws would be ineffective (i) if an ISP is not competitively disadvantaging its competitors, especially when no direct price or sale is made, (ii) since an ISP could not be held liable for illegal collusion with its own subsidiary or parent companies, or (iii) *non-discrimination*, and therefore paid prioritization, could not be addressed. On that last point, even bright-line rules would be difficult to apply to paid prioritization since they are part of the data packet switching function and used in service

offerings. Net neutrality advocates believed that bright-line rules could provide predictability in how to apply laws and regulations. Bright-line rules could protect competition and consumer harms, include a general conduct rule with varying interpretation, and reduce litigation costs. FCC regulations could stipulate bright-line rules, like in the 2017 Order about implementing a transparency rule that requires ISPs to disclose all data packet switching functions and service offerings. However, even the 2017 Order did not stop an attempt to impose FCC-repealed or refrained or stringent economic rules or requirements to govern data packets and the Web at the state level. States could even govern terms and conditions of wireless services, including termination of service arrangements.

Fuller (1969) argues that legal standards should be general, broadcasted widely, future-oriented, non-contradictory, consistent and evenly proportioned, and realistic in enforcement. If some statewide broadband Internet access bill upheld parts of net neutrality principles, there would be inconsistent legislation between states that either did not align with those same parts of principles or had no principles at all. Some states recognized that enforcing net neutrality principles were important but upheld paid prioritization for reasonable network management to achieve a more efficient network architecture. According to net neutrality opponents, nanny state regulators could not govern data traffic since data could not recognize state lines; new terms of engagement and geographic restrictions would degrade quality of services. It was impossible for ISPs to distinguish between intrastate and interstate communications or to apply different rules since the Internet's layered protocols consist of software instructions. Patchwork state and local laws could logistically impede interstate communication; for instance, a State of California bill prevented ISPs from imposing restrictions on first responders during emergencies. Preventing ISPs from impairing or degrading Internet traffic was speculative because of routine traffic

maintenance and specifying who could declare an emergency was ambiguous. Net neutrality opponents and advocates tried to surpass and subdue the other side by contesting state versus federal jurisdictions through citations of exceptions, U.S. Codes, and acts.

Net neutrality opponents cited how ISPs were legally protected from inconsistent regulations that were burdensome and impracticable (*impossible*), and the FCC could pre-empt state law that interfered with interstate activities (where BIAS (broadband Internet access service) is under the 2015 Order), federal regulations and legal efforts, policies of nonregulation (i.e., *information* services), and ambiguous state provisions. Furthermore, regulations must not interfere with the competitive free market in *information* services; in fact, federal or state common carrier regulation was forbidden. Laws and regulations could not prohibit ISPs providing interstate and intrastate *telecommunication* services anyway. Conversely, net neutrality advocates claimed that the FCC did not provide adequate notice of its *impossibility* citation, and start and end points of BIAS could occur within a state. The FCC was already prohibited from regulating intrastate matters, including when they connected to interstate matters (e.g., facilities housing multiple networks), and the 2017 Order abdicated the FCC from regulating ISPs altogether. State authority in preserving and advancing universal service, for example, could be upheld if BIAS was classified as a *telecommunication* service, but it was not. However, an Appeals Court ruled that state and local laws could enact net neutrality rules.

Net neutrality advocates argued that *telecommunication* (Title II) and *information* (Title I) services were mutually exclusive, while net neutrality opponents argued that BIAS was an integration of data transmissions (*telecommunication*) with *information*-processing. Here, *telecommunications* is intertwined with computer processing, information provision, and computer interactivity capabilities as *information* services. However, the fact that net neutrality

opponents classified BIAS under Title I precluded that BIAS was an integration of both Titles I and II services. Even when BIAS was classified under Title I in 2014, AT&T relied on its Title II-protected mobile and landline voice services to evade FTC regulation when accused of throttling data in unlimited data plans. Net neutrality opponents thought that destroying public utilities and common carriage monopolies would make regulation pointless, while net neutrality advocates believed common carriage classification could regulate non-monopolistic ISPs. Title I would uphold state consumer protection laws and state attorneys general decisions.

Packet-switching allowed ISPs to set up their own information services but had to offer competing ISPs non-discriminatory access to networks. Net neutrality advocates argued that telephones offered automated information or an operator to generate or process information, but the telephone was not an *information* service, and users could not make phone calls without running compatible software as a *telecommunication* service. In the past, law was able to render a verdict of classifying BIAS as an *information* service. Domain Name System (DNS) (i.e., matching names to numbers of a website address) and caching (i.e., the storing of data to load future requests faster and reduce latency) were integrated information-processing capabilities of BIAS, according to the *National Cable & Telecommunications Association v. Brand X Internet Services* (2005) ruling. For law to be legitimized, rules must be “declared with prospective application” and have “generality, equality, and certainty” (Bayamlioğlu & Leenes, 2018, p. 304; see also Tamanaha, 2004). Net neutrality advocates and opponents interrogated the arbitrariness and inconsistency of law.

Regulation ought to align with both legal doctrine (“normative legal standards”) and the pace of technology (technological instruments) (Brownsword, 2020 p. 33; 2016, p. 102; 2012, p. 254; 2019, p. 42). Law 2.0 embodies self-regulatory intervention and bolsters what acts are

“prohibited, permitted, or required” (Brownsword, 2016, p. 102). Regulation provides ex-ante prevention and balances benefits and risks to consumers and technologies in attempting to not over or under-regulate (Brownsword, 2020, p. 33; p. 21). Regulatory failure begets more regulation (p. 33). The FCC and FTC attempt to make clear the parameters of acts that govern data packets and the Web while balancing a tight rope walk between over and under-regulation of consumers and the BIAS industry.

Net neutrality advocates and net neutrality opponents questioned whether and how (i) fraud impacted the FCC’s ECFS (Electronic Comment Filing System) comments and (ii) the FCC’s rulemaking may be susceptible to corruption. A criminal investigation into fraudulent filings to allegedly influence the development of rules to carry out laws sparked FOIA cases. These cases sought to understand (i) the FCC’s ECFS procedures, purposes, and impacts, (ii) fraudulent activity, and (iii) FCC agency computer network vulnerability in crashing the FCC server and site from either John Oliver’s HBO segment or fraudulent comments from bots, stolen identities, and Russian IP addresses. The FCC did not violate the Administrative Procedure Act (APA) and followed a court substantial evidence standard in guidance from facts in the record and serving public interest. I reveal a startling conclusion to the fraudulent-comments-and-FCC-corruption narrative in Section 8.5.

Early into the research, I questioned why the FCC’s comment and filing system existed. How did the comments affect change in policy and legal decision-making? The FCC tried to explain on its website the rulemaking process that shed some light on how it adopted rules. To adopt legislative rules, the Commission would begin the ‘notice and comment’ process by starting with the APA, which substantiated the basic requirements for notice and comment rulemaking (FCC, n.d.-d). The Commission issued a notice-of-proposed-rulemaking (NPRM) to

notify the public of the upcoming opportunity to comment on the proposal. The NPRM would be published in the Federal Register, the public comment period would be established (at least 30-days or more), reply comments from the public to other public members would commence, and oral and written presentations could be included. The rulemaking documents, supporting documents, public comments, replies, and *ex parte* presentations and comments would be uploaded to the Public Docket. From here, field experts would peer review the draft information. A logical outgrowth test could be administered where changes could be made to the proposed rules if the public could anticipate changes. If not, another public comment period would be set. The Commission would then decide to proceed, modify, or take no action on the proposal. The final rule would be published in the Federal Register and placed in the rulemaking docket and an effective date would be made for the legislative rule. Lastly, a petition for reconsideration by the Commission or a file for judicial review could take place. Individuals or entities could also petition for full or partial exemption as a waiver request (FCC, n.d.-d).

The Commission explained that its rulings were strengthened through public participation in addressing issues with the proposal (FCC, n.d.-d). The Commission also stressed that its decisions were based on data or analysis and that comments should be supported by evidence. The public was encouraged to root their supporting evidence in concrete examples to demonstrate concerns and alternative solutions and to challenge facts, data and research, methods, analysis, and conclusions. It should be noted that similar comments could be grouped together for the Commission to review and that the Commission did not respond to each commenter individually (FCC, n.d.-d). In the end, was the function of the ECFS a formality that checked boxes for democratic inclusion and freedom of expression?

If only 20–30 comments would be viewed as useful for swaying the FCC’s decision, why not host a call for expert witness testimony instead of opening commenting opportunities to the public? Opening a longform debate between experts to allow for a full range of arguments to be carefully made and responded to could be more effective for understanding perspectives. The ECFS comment section acted like a message board with short informal responses. If the FCC was going to discard most comments because of their perceived uselessness after the NPRM process concluded, what would be the purpose of encouraging the public to take the time to submit comments? If the FCC was only interested in expert-made factual arguments and data that had sound legal backing or new empirical data or analysis that raised methodological concerns, why not only rely on experts? Most of the public comments did not address the criteria for assessment. It is my understanding that the FCC had three options: open the NPRM process to the public and hope to find 20–30 useful comments; or proceed with a declaratory ruling by dictating what the previous FCC did was null and void as a matter of law and move on; or host a conference of telecom council and representatives, legal experts, economists, investigative journalists, academics, tech, and civil society experts to scale arguments to help the FCC and politicians decide whether and to what extent Title II should be repealed.

Option one clearly did not work and was too messy and too anonymized, which contributed to the fraudulent comments debacle. Option two would have been criticized by net neutrality advocates as an overreach of authority by the FCC chairman and his FCC majority. The very state government regulatory oversight Republican Party members and the FCC majority were trying to minimize would have been amplified and exposed for its hypocrisy. Option three would have given leading industry experts a space to formulate, present, and respond to arguments for lively debates where the FCC and other arbiters could have collected

the arguments to then make an informed decision on the matter of upholding or repealing net neutrality principles. Instead of nonsensical, vague comments by the public or an FCC-directed authoritative rule, democratic debates between net neutrality advocates and opponents could have been set inside an arena of ideas and persuasion.

Arbiters who weighed experts' opinions and accounted for the contribution each argument had in decision-making would have been graded on an impact scale. The scale would have to be approved by federal commissions legislation. However, one implication to this option would be deciding who spoke, in what order, and for how long. There should be boundaries to the debates, and it should be organized by industry and topic. The FCC would have to carefully cull the evidence presented by the experts and arrive at a decision to uphold or repeal net neutrality principles. The net neutrality principles could then be upheld or repealed through formal laws and regulations based on cited evidence.

Net neutrality advocates argued against permissionless innovation, whereas net neutrality opponents argued against granting unelected bureaucrats control over industries. Deregulating the BIAS industry would increase prices, tighten usage caps, stifle innovation by expunging competition, and politically censor websites and determine online business models through arbitrary tolls. The FCC should adjudicate each complaint to test if ISPs aligned with an Internet reasonable conduct standard and bright-line rules. These were the views of net neutrality advocates. The Democratic Party invoked the Congressional Review Act (CRA) to overturn the 2017 Order, which failed at the House of Representatives. Even though the 2017 Order stripped the FCC of its ability to impose conduct rules on ISPs, net neutrality opponents were worried about the rule-setting authority the FCC had in setting prices and conditions of service, preventing ISPs from discontinuing services, and requiring utility-style tariffs. Regulations

would force new ISPs to incur high costs of deploying their networks compared to regulatory compliance costs of keeping their networks neutral and would cause ISPs hesitation to invest.

Net neutrality opponents argued that the FTC instead brought expert analysis, technicality, and empiricism, and oversaw data security and privacy practices in other sectors. Rigorous marketplace competition analyses would signal whether harm to business competitors occurred, so the FTC could prohibit unfair methods of competition and unfair and deceptive practices. Moreover, codes of conduct could ensure fiduciary promises were upheld and case-by-case factual-based antitrust laws would be enforced through criminal and civil enforcement actions by the DOJ's (Department of Justice) Antitrust Division, FTC civil enforcement actions, and lawsuits. A *law layered approach* was suggested where the FTC could enforce laws and hold corporations to their promises, the DOJ could enforce antitrust laws, and the state attorneys general and litigators could supply legal checks to user harms. By contrast, net neutrality advocates argued that the FTC lacked expertise in telecommunications, data network management practices, and detecting data discrimination. The FTC would only investigate net neutrality violations after the fact, for which there had to be substantial consumer harm, and would rarely issue prescribed rules unless directed by Congress. The case-by-case process was inconsistent and lacked certainty, along with legal proceedings taking a long time to resolve.

A third-way, centrist solution between the FTC versus FCC debate about who ought to regulate and how regulation ought to be carried out was never brought up in the NVivo datasets. Atkinson and Weiser (2006, p. 55) proposed a centrist solution where (i) ISPs could offer and charge for enhanced or tiered network services and (ii) regulatory bodies (i.e., the FCC and FTC) could provide regulatory and legal checks over ISPs' potential to abuse Internet market economy powers. This centrist solution could provide "effective consumer protection measures, sound

competition policy oversight, and conditioned tax incentives” (p. 55). An analogy about pathogens may help to explain the centrist solution as an approach to strengthen authority over telecommunications services. The FCC and FTC could work together to pre-empt and react to harmful ISP practices, despite challenges regulators face. Legislation downloading authority to regulatory agencies was not going away. State government regulators operate in the scope of Lowi’s (1979, p. 278) ‘Second Republic’ by dictating the terms of interest group participation after establishing management of finances, licences, and risks.

In the analogy about pathogens, the FCC represents daily natural pre-emptions to boost the human subject’s immune system from contracting bacterial infections. The daily natural preventions represent anti-paid prioritization principles. The human subject’s immune system represents ISP user and ISP competitors’ wellbeing. And the bacterial infections represent ISP practices that harm user and competitors’ wellbeing. By contrast, the FTC represents reactionary medicine to eradicate bacterial infections from harming the human subject’s immune system. Here, the reactionary medicine represents antitrust law. And again, the bacterial infections represent ISP practices that harm user and competitors’ wellbeing, and the human subject’s immune system represents ISP users and ISP competitors’ wellbeing.

Suppose the FCC suggests a pre-emptive framework to defend against pathogens that produce bacterial infections throughout the human body by calling for vitamin supplements intake, exercise, and eating a balanced diet to boost one’s immune system. These pre-emptions are not guaranteed to eradicate the bacterial infection or to halt it completely from entering the body in the first place. The pre-emptions are meant to minimize the damage from morphing into a greater destructive force. To keep vitamin supplement intake, exercising, and dieting consistent across time could be difficult to achieve as a pre-emption though. The human subject could stray

from the regimented plan because of a lack of will power, financial constraints, a change in expert opinion on what works, or the fact that one may not see immediate or intended results and therefore think the plan is futile.

On the other hand, suppose the FTC suggests a reactive framework to kill the pathogens that produce bacterial infections that already entered the body after the fact. Anti-biotic medication could be given to the human subject after they complain of a weakened or infected immune system. These treatments are also not guaranteed to eradicate the bacterial infection. The treatments could help to eradicate the bacterial infection in some cases or slow its growth; however, the bacteria could develop a resistance against the treatment. To rely on prescription medication would not train the body to naturally defend against harmful bacterial infections, it may not be financially feasible for patients to pay for medication, it may not be physically feasible (i.e., travelling to a doctor's office and waiting to retrieve a prescription) to consult a doctor each time one fell ill, nor may it be the correct solution to eradicate the bacterial infection and may cause further ailments from reactionary side effects, including drug abuse.

Could we not have both pre-emptive and reactive approaches at our disposal? What is wrong with a regimented plan that aimed to pre-empt the human subject's immune system from becoming weakened and infected, but also keeping the option open to take anti-biotic medication that aimed to eradicate or slow the spread of the bacterial infection if it got worse? Both ways may not be sufficient on their own to deter or eradicate harm to the human subject's immune system; both ways might be stronger together. This analogy about pathogens was meant to explore how the FCC and FTC could potentially work together to pre-empt and react to harmful ISP practices, including consumer and competitor harms.

Law 3.0 sees regulatees acting through the means of what is possible and practical under techno-regulation, where binary instructions and policies force compliance (Brownsword, 2019, p. 58; 2012, p. 261). Techno-regulation works when rules are definite, indisputable, undeniable, and do not require discretion (Tien, 2004; Brownsword, 2005). Even though the Law 3.0 framework is entitled ‘non-normative,’ there are still norms built into technology to regulate behaviour through standards that could enforce “existing legal rights or in establishing new rights” (Koops, 2008, p. 159–160). It is the binary instructions and policies that force compliance and remove the ability to morally and/or ethically choose how to individually interact with data packets and the Web. Net neutrality advocates and opponents quarrelled over whether technology should be left alone or guided by laws and regulations to pursue economic prosperity.

Net neutrality opponents valued the following data packet management logistics: packet switching networks, content delivery networks (CDNs), deep packet inspection (DPI), and 5G broadband cellular networks. These data packet management logistics seemingly made enforcing net neutrality laws and regulations impossible. Protocols and algorithms operationalize tasks and arrange and process data from sequenced instructions (Galloway, 2004, p. 30). Protocols and algorithms are controlling logics that produce struggles and competitions to command order. Struggles and competitions could be seen from how users, content and application developers, network managers, and ISPs interact with flows of data packets. Laws and regulations could not account for or adapt to fit the solutions data packet management logistics made for BIAS providers and customers.

First, ISPs can prioritize data through packet switching and the form or content of information changes over networks; thus, states that adopt net neutrality principles would fracture costs of deliveries and partnerships, delivery itself, and user costs. Net neutrality

advocates argued the complete opposite: it does not matter if the ISP repackages the data payload in an IP (Internet Protocol) packet using other protocols. Second, net neutrality opponents argued that investing in CDNs meant that edge providers could connect to ISPs without monetary payment to network operators for an efficient and predictable exchange of traffic and value to providers and customers. Third, DPI allowed for network operators to identify the origin and destination points of data packets and determine the application used and packet content. DPI could be used in filters and firewalls to detect and prevent spam, viruses, worms, and malware, to plan network capacity and diagnostics, and for law enforcement's information retrieval. Net neutrality advocates were worried that DPI could differentiate or discriminate data packets for throttling. Lastly, 5G required a prioritization on networks to send and receive data faster via network slicing for operators to provide different services with different performance characteristics to address specific use cases.

ISPs had the advantage of creating and recreating terms of service agreements that fit consumer needs when aligned with corporate visions. During the Mendocino Complex wildfire, Verizon throttled data speeds of Santa Clara Fire Department since it exceeded its monthly limit, which affected its vehicle's functionality. Even though Verizon technically did not violate net neutrality principles, the department had no recourse to file a complaint with the FCC for unjust or unreasonable prices and practices under the 2017 Order. Net neutrality opponents rationalized that all customers contractually agree to reduced data speeds when exceeding monthly limits, shaping data traffic to avoid network congestion can increase quality of service, and the department should have invoked a suspension of the speed restriction or switched to a plan without a speed restriction. Working within the bounds of terms of service agreements could spark solutions. Service agreements could be a standard accountable to users to address ISPs'

violation or changing of agreements. However, net neutrality advocates argued that ISPs could evade FTC recourse by adding new provisions to block, throttle, and prioritize data packets.

There are obvious tensions and incompatibilities between law, public sector regulation, and industry self-regulation. State government-enacted laws and regulations may be too slow to align with technological management and solutions imbued by private industry. Private industry-created technological management and solutions may forget to embrace humanistic protections promised by laws and regulations. Law seems to work consistently and fairly when it is legacy law, when it is ‘grandfathered in’ as a precedent or settled from landmark cases. There might be contestations over interpretations in the years that follow, but precedent rulings and landmark case rulings are pronounced to establish how data packets and the Web ought to be governed. Law can provide blanket standards that apply to all, while regulation can be a bit more fluid in addressing societal concerns. Regulation can alter behaviour backed by standards (Black, 2005) and mitigate harm (Yeung, 2015, p. 5). It is when there is new technological capabilities that laws and regulations are found somewhat sluggish to adapt when it is not immediately evident how to govern data packets and the Web. Humans can harness technology to be more adaptive, efficient, secure, convenient, recyclable, affordable, and faster across time. Industry standards can be geared towards atoning for human protections, like safeguarding sensitive personal data and privacy, but markets are slated to be dominated. Human needs may fall to the margins when seed investors and shareholders are the two most important entities to satisfy.

Is one framework more dominant or are the frameworks contesting equally? To what extent can the frameworks be combined? The formal law and regulation framework and non-normative framework ought to shape and be shaped by the other. Law and regulation should direct and adapt to technological management and solutions. Regulation is the middle-of-the-

road between law and technological management and solutions since it combines public governance at all levels from locally to supranationally with non-state private governance from actors to institutions. Koops (2008, p. 161) calls this overlapping of power ‘polycentric governance.’ Where bleeding edge technology is on the cusp of outcompeting international corporations and their technology, state governments can ensure consumer safety is not forgotten. Where state governments wish to protect citizens from foreign espionage and promote domestic enterprise, private industry can produce, test, and release ‘fit for purpose’ resolutions. Both frameworks rely on the other to control how U.S. economic power metastasizes by reflecting U.S. norms, values, and rights.

8.4 – The Bottom Line: Expanding U.S. Economic Power

In Section 8.4, we consider how net neutrality advocates and opponents argued how U.S. norms, values, and rights metastasize U.S. economic power through:

- Gatekeeping access and interaction with content and applications and exclusion of consumers and competitors.
- Monopolistic control.
- ISP-projected and reported infrastructure and financial investment numbers.

Actors make social connections by forging bonds under the guidance of communal norms, values, and rights. There must be a shared understanding of norms, values, and rights and an agreement to uphold them for a society to function. The glue that holds us together are the norms, values, and rights embedded in laws, regulations, and technological management and solutions. Internet governance of data packets and the Web reflected U.S. norms, values, and rights in ways that supported the expansion of U.S. economic power. The question was posed about how much state governments should intervene in the pursuit of profits. Net neutrality advocates argued that paid prioritization could exclude some consumers from experiencing any (or reliable) connections, whereas net neutrality opponents argued that paid prioritization was

key for ISPs to achieve and maintain monopoly control. Competition fosters corporate mergers, expanding market shares, and offering price discrimination to protect consumers, even though the Sherman Antitrust Act aimed to break up the economic and political capital monopolies hold. Yet, monopolies decimate competition via legal and regulatory tools (patents and high-priced lawyers), political and economic tools (purchasing lobbyists), and technological tools (standardizing platforms). Net neutrality advocates' position on normalizing equal access to the Internet without tiered payment levels were impractical since vertical competition produced clear winners and losers. It is nearly impossible to break up monopolistic control.

Citing investment statistics was one way to argue for or against the impact Title II regulation had on ISPs' decisions about past, present, and future infrastructure and financial investments; however, there were disputes over reported numbers and projections. Net neutrality opponents argued that less state government interventions (unless overwhelming market failure) would yield more corporate innovations and risk-taking in investments, thereby reducing or eliminating risk premiums. They also believed that antitrust laws should fuel and sustain competition and monopolies without the FCC's slow decision-making, while net neutrality advocates argued that antitrust laws were meant to peel back concentrated corporate power.

Related to creating a corporate culture of monopolies with proprietary innovations was the idea of walled gardens, or gatekeeping. ISPs discouraged or disallowed Internet market players from participating to promote content and services and build and maintain infrastructure. A lack of consumer choice, either because an ISP was a subsidiary of larger ISPs or because larger ISPs dominated most private and commercial spaces in the U.S., prompted consumers to pay for higher tiered service plans. ISPs' assumed right to offer zero rating plans for continued access to proprietary content and applications despite reaching monthly data caps arguably

excluded other content and applications. Gatekeeping means that bias is entrenched in who gets to access, and how consumers can interact with, content and applications.

8.5 – A Brief Update Beyond March 13, 2020

Section 8.5 serves as an afterword to bring some closure to strings of narratives, actors, and institutions presented in the dissertation. I outline the FCC's response to the COVID-19 pandemic with the Emergency Broadband Benefit (now the Affordable Connectivity Program), which helps struggling U.S. households to connect online and close the digital divide. The FCC's C-Band auction will show how large ISPs attempted to secure 5G service rollout in the future. Next, I give an update on FCC chairs and commissioners. I then reveal the damning New York Attorney General's report about how the FCC's fraudulently-submitted comments were sent by one individual using a fake name and email address generator to support Title II and by anti-regulation advocacy groups hired by large ISPs to influence support to repeal Title II. Trust, openness, and accountability of ISP, bureaucrat, and elected representative practices are questioned. Chapter 8 ends with a prospect of accessing, consuming, and sharing ideas over future online networks.

The dissertation's source material evidence spanned until March 13, 2020, the day that Republican President Donald Trump declared a national state of emergency due to the COVID-19 pandemic. The choice to designate March 13, 2020 as the endpoint was driven by the fact that the COVID-19 pandemic caused a shift of numerous students, workers, administrations, businesses, families, and communities to online interactions. A hasty transition to online platforms ensued, demanding an adaptation to technology's norms and values. While there is no direct relationship between the COVID-19 pandemic and net neutrality, the pandemic forced a growing reliance on the Web and Internet infrastructure for essential online interactions in

remote work, education, healthcare, entertainment, and communication. People had to acquire and adjust to using the Web and the Internet out of necessity, causing the net neutrality debates between 2017 and 2020 to fade. However, some notable events and changes in administrations took place in the net neutrality saga after March 13, 2020. Relevant events and changes will be briefly discussed in this section.

The FCC responded to the COVID-19 pandemic with the Emergency Broadband Benefit (EBB), which transitioned into the Affordable Connectivity Program (ACP) on December 31, 2021. The EBB provided struggling households (e.g., if a member has an income that is at or below 135 percent of the Federal Poverty Guidelines or participates in financial assistance programs like Lifeline) who could not afford BIAS (broadband Internet access service) during the pandemic by issuing a discount up to \$50 per month for eligible households and up to \$75 per month for households on qualifying Tribal lands (FCC, n.d.-c).

Congress enacted the ACP under the Infrastructure Investment and Jobs Act. ACP is a \$14.2 billion program that will provide a discount of up to \$30 per month toward BIAS (fixed (i.e., service to a home) and/or mobile (i.e., cellular coverage)) for eligible households and up to \$75 per month for households on qualifying Tribal lands (FCC, n.d.-a). If a member of the household qualifies with at least one criteria posted on the FCC's website (e.g., has an income that is at or below 200 percent of the Federal Poverty guidelines or participates in financial assistance programs such as Federal Public Housing Assistance), households can become eligible to receive discounted BIAS (FCC, n.d.-a).

Democratic President Joe Biden's Infrastructure Investment and Jobs Act also aims to build out universal BIAS by 2030 with a pledge of \$65 billion. But by Bhaskar Chakravorti's (the Dean of Global Business at Tufts University and founder of its Digital Planet research

project) estimate, closing the digital divide could cost \$240 billion (Mui, 2021). ISP investment bids in the FCC's C-Band auction surpassed the act's \$65 billion pledge with a record-breaking \$81 billion (Dano, 2021). ISPs were allowed to bid on C-Band frequencies that were formerly available to large-dish satellite TV companies from the 1970s and deploy the frequencies for 5G service (O'Donnell, 2020). The FCC is essentially offering ISPs the ability to license and use C-Band frequencies for wide coverage and open frequency to procure high-speed connections on devices (O'Donnell, 2021). A snapshot of the auction results showed that the top three ISPs who spent the most were: Verizon (\$45.5 billion), AT&T (\$23.4 billion), and T-Mobile (\$9.3 billion) (Dano, 2021). The FCC and its spectrum officials clearly played a major role in allocating C-Band waves to ISP-bidders in securing future 5G service rollout to customers across the nation.

As for an update on FCC chairs and commissioners, Democratic FCC Commissioner Mignon Clyburn ended her term of service on June 6, 2018 and Democratic Commissioner Geoffrey Starks took her seat on January 30, 2019. Democratic FCC Commissioner Jessica Rosenworcel is now FCC Chairwoman as of January 20, 2021 after Republican FCC Chairman Ajit Pai ended his term of service on the same day. Republican FCC Commissioner Michael O'Reilly ended his term of service on December 11, 2020 and Republican FCC Commissioner Nathan Simington took his seat on December 14, 2020. And Republican FCC Commissioner Brendan Carr continues to serve his term of service. There is still one Democratic FCC Commissioner seat left vacant as of this writing.

Turning attention to an update on the FCC's fraudulent comments debacle, there was in fact efforts to influence the FCC's upholding and repealing of Title II. On May 6, 2021, Democratic New York Attorney General Letitia James released a report prepared by the Bureau of Internet and Technology and the Research and Analytics Department that detailed how 18

million out of 22 million comments were fabricated (NY State OAG Letitia James, 2021). A 19-year-old computer science major college student filed over 7.7 million pro-net neutrality comments to the FCC's ECFS (Electronic Comment Filing System) website with fabricated names and addresses using <https://www.fakenamegenerator.com/> (p. 27). Also, in April 2017, ISPs funded a campaign to generate millions of comments to the FCC's ECFS website to create an appearance of grassroots opposition to, and public support for repealing, net neutrality (p. 4).

ISPs recruited unregulated anti-regulation advocacy groups by spending \$4.2 million to submit 8.5 million fake comments and half a million letters to Congress members to discourage Congress from interfering with the repeal (NY State OAG Letitia James, 2021, p. 4). The companies that generated comments for a fee, known as lead generators, did so through co-registration -- consumers would receive online rewards in exchange for providing personal information -- alongside asking to support the repeal of Title II (p. 5). Almost every lead generator "copied names and addresses they had purchased or collected months or years earlier through unrelated lead generation efforts" and submitted the information as support for the campaign, with one lead generator who copied information from a data breach (p. 5). Three lead generators had to pay a combined \$4.4 million for their misconduct and agreed to protect consumers (e.g., through informed consent and disclosures) and prevent fraudulent comments in future campaigns (p. 7).

Days before Donald Trump was inaugurated as U.S. President, ISP executives proposed the campaign in a document to support the "FCC action to stop the current rule and initiate a new [rulemaking] proceeding" and to urge Congress to pass legislation that repealed Title II (NY State OAG Letitia James, 2021, p. 11). Broadband for America, a non-profit organization that aims to expand Internet usage and access through public policy and research, ran the

campaign (Bloomberg, 2021). Broadband for America's executive committee comprised of ISPs and trade groups with a lobbying firm in Washington, D.C. (NY State OAG Letitia James, 2021, p. 11). Broadband for America believed that manufactured grassroots support, "press outreach, social media campaigns, and coordinated filings from the broadband industry and free-market economists [] would 'give [Republican FCC Chairman Ajit] Pai volume and intellectual cover' for repeal" (p. 11). Broadband for America spent approximately \$8.2 million in total "to repeal the FCC's regulations and push Congress for more favourable law (p. 12)." Further investigations are continuing into resolving the FCC's ECFS fraudulent comments debacle.

Will ISPs or bureaucrats or elected representatives disclose practices and procedures over their customers and citizens in the interest of showing care for openness? Will ISPs or bureaucrats or elected representatives be ready to face consequences for controlling narratives? Did fraudulent comments from users with Russian IP (Internet Protocol) and email addresses truly come from Russia? Russian IP and email addresses and bots could have been another discursive strategy to allude to how Russian troll farms were seeking to influence public opinion and federal decision-making. It seemed that in this period of the net neutrality saga, troll farms, comprised of paid actors who produce online comments to sway political opinions, were not foreign but domestic. Recall the Russian adage that the future is certain, and the past is unpredictable. Who is to say that which has been recorded as historical fact or promoted in news cycles truly occurred? The past could be altered and recounted in a narrow way to fit a narrative.

Online culture fosters a popular opinionated time where the most votes on an issue from the loudest party tends to get the majority to side with them. Simultaneously, today's online culture fosters outrage fatigue: how many times can actors be shocked about information when information is supposed to shock them each time? Actors were setting cellular towers on fire

because of conspiracies about how 5G frequency waves weaken the human immune system and allow the coronavirus to migrate into the body. Elsewhere, there are real concerns about the interference 5G's C-Band spectrum could have on aircraft electronics. This means that customers living near airports may not receive 5G services until an agreement is reached between ISPs and the FAA (Federal Aviation Administration) (Shepardson, 2021).

The method of accessing, consuming, and sharing ideas over the Web in the future remains unknown. It is possible that data becomes decentralized based on blockchains, or a list of linked records that organizes transaction data. This would make the online experience more personal and direct. The aim would be to render data as a public good distributed across peer-to-peer (P2P) networks. Or perhaps ideas, even ones that live on decentralized blockchains, will always be commodified and thus centralized in some fashion. Acquiring data will always be coveted. Data can be used to make informed predictions on what human beings will do and informed decisions on guiding human beings on what they ought to do. With new laws and regulations and technological management and solutions will come new narratives that fight for oversight, blocking, throttling, prioritization, political party 'winning' of arguments, financial and infrastructure investments, jurisdiction, the digital divide, openness and transparency, market competition, free speech, walled gardens, and discrimination. Drawing out socio-legal dimensions to help demonstrate discursive strategies, the nature and effectiveness of formal law and regulation and non-normative frameworks, and expanding U.S. economic power that reflect arguing for or against neutralizing the queuing and transferring of data will be essential for how humans interact with future online networks.

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[com.ezproxy.library.yorku.ca/api/document?collection=news&id=urn:contentItem:5R5V-MY81-DY1J-T05F-00000-00&context=1516831](https://advance-lexis-com.ezproxy.library.yorku.ca/api/document?collection=news&id=urn:contentItem:5R5V-MY81-DY1J-T05F-00000-00&context=1516831)

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Appendices

Appendix A: A Note on Ethical Considerations

The 2017 Order, the ECFS attachment files, YouTube videos, mainstream media news articles, and law documents were all publicly accessible texts. The 2017 Order was written, vetted, and approved by the FCC Chairman and Commissioners. Users who submitted comments or attachment files knew that their contact information (i.e., their names and addresses) could be seen by the world. Moreover, uploaders of video content to YouTube had to comply with YouTube Community Guidelines (see https://www.youtube.com/intl/ALL_ca/howyoutubeworks/policies/community-guidelines/?utm_campaign=1008960&utm_source=paidsearch&yt_product=ytgen&yt_goal=eng&utm_medium=googlesearch&utm_content=txt&yt_campaign_id=hyw&yt_creative_id=&utm_keyword=youtube%20guidelines&utm_matchtype=e&gclid=CjwKCAjwv_iEBhASEiwARoemvAwZOWJgJPbRQTgAQhe-KaWMuGSnFAxn7V7b3iZjrPLMOWN6L9ci0BoC9XYQAvD_BwE). Uploaders were made aware that their content may be broadcasted and viewed by millions of viewers around the world. Furthermore, investigative or news journalists sought approval for fact-checking their sources and for attribution and content publishing with their interviewees' permission. And law documents were officially recorded and uploaded to databases for the public (i.e., sometimes with subscription accounts or whose academic or professional institutions paid for proxy-access) to access and download materials. The datasets were built by lawfully fetching and extracting copyrighted materials.

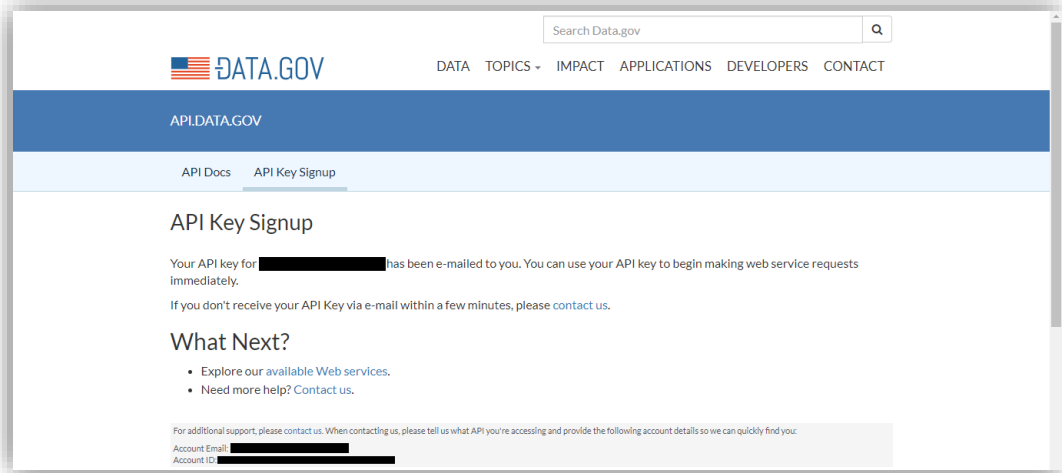
Review Ethics Board (REB) or Human Participants Review Committee (HPRC) approval was not needed for this project. There were no known or anticipated risks or harms involved

surrounding human participants since all data collected and analyzed was strictly from textual and visual mediums. There were no experiments or trials, interviews, participant observations, action research, documentary and filmmaking, oral and life history, experimental behavioural studies, ethnographies, surveys, focus groups, or human tissues-based research methods conducted. While I was dealing with identifiable data, this data had been approved for public consumption by interviewers, documentarians, popular commentators, legal representatives, state government officials, and online users.

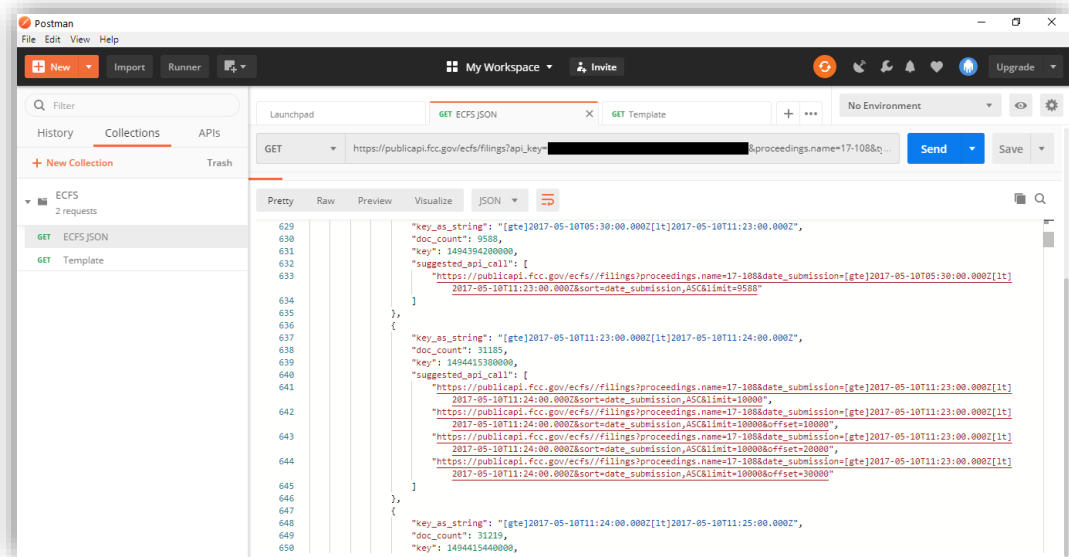
Appendix B: Technical Research Procedures for Web-Scraping Data

Table B1

Procedures for API Key Signup on data.gov and Fetching and Extracting the FCC’s ECFS-Submitted Comments

Step	Procedures
1	In the FCC’s Public API (Application Programming Interface) Documentation website (https://www.fcc.gov/ecfs/help/public_api#!%2FFiling%2Fget_filings), you are led to https://api.data.gov to generate an API key by entering your name and email address. An API was used to fetch and extract comments. GETs can be made between software applications to access and transmit data. GET is one type of API function that requests defined data from a server. The <i>waitress</i> (API) serves <i>me</i> (the computer client or application or platform, like Postman) the <i>restaurant’s</i> (the FCC’s server) <i>specific food</i> (data) to <i>consume</i> (in a digestible readable format) since I requested it. I signed up via email for a free API key from data.gov to make Web service requests (NB: my Account Email and Account ID are redacted): 
2	Remaining on the ECFS Public API Documentation website, under the “Filing” header, and under “Get /filings,” enter the following information: - Response Content Type: application/json - api_key: [enter personal API key] - proceedings.name: 17-108 - date_submission: [gte]2017-08-02T08:14:00.000Z[lt]2017-08-02T08:42:00.000Z - sort: date_submission,ASC - type: csv ***NOTE: leave every other parameter blank*** “Try it out!”
3	Remaining on the ECFS Public API Documentation website, scroll down and copy the URL under “Request URL.”
4	I knew I was limited to scrape 10,000 comments at a time from the internal parameter set by the FCC. I also recognized that the “max offset” was set to 500,000 comments, meaning I could not download past the 500,000th comment on the ECFS Public API Documentation website. Upon scrolling further down the site page, under the heading, “Download Plan,” the FCC states: “The FCC has enhanced the API to make data extraction simpler and more efficient. This new feature is called the ‘DownloadPlan’. [sic] You no longer need to specify offsets/limits. You now have the ability to customize your query with all the necessary parameters to extract data, as needed” (FCC, n.d.-b). To scrape past the 500,000th “max offset”

comment issue, you must annotate the “date_submission” field. One of the example extracts given for the Download Plan was using a JSON response extract. I performed a JSON response extract by using the Postman platform to do so (NB: my personal API key is redacted):



- 5 To save time in Postman, in “Collections,” create a collection called “ECFS.” Create two requests found in the collection and name them, “ECFS JSON” and “Template.”
 - a. The “ECFS JSON” request is obtained from the ECFS Public API Documentation website. Scroll near the bottom of the page, under “Download Plan,” and copy and paste the URL under “Download Plan for this API call:” [https://publicapi.fcc.gov/ecfs/filings?api_key=\[yourkey\]&proceedings.name=17-108&type=downloadplan](https://publicapi.fcc.gov/ecfs/filings?api_key=[yourkey]&proceedings.name=17-108&type=downloadplan). Ensure to enter the unique API key. Paste this URL into Postman’s GET request. The “Query Params” are read in automatically from the URL (api_key; proceedings.name; and type). In the “Body” result, ensure the output is on “Pretty” and “JSON.” The output is an aggregation of buckets from the filings. The most important piece of code from each bucket is the “key_as_string.” For example, the first one is: [gte]2017-04-27T13:20:00.000Z[lt]2017-04-29T19:31:00.000Z. This is the master list to go by as you comb through all buckets and retrieve all comments.
 - b. The “Template” request is where you can plug in all the params you need for each bucket to get the comments without going over 10,000 for each bucket and without reaching the 500,000th overall max offset. The values for the api_key, proceedings.name, sort, and type always remain the same. What changes is the date_submission value (copied from “ECFS JSON” buckets) and the limit and offsets. Most buckets will not need a limit or offset. But there are some buckets that have a single date that is over the 10,000th scraping limit. What the FCC’s API automatically does is sort the comments into different API calls with the same limit (10,000) but different offsets (in increments of 10,000). For example, within one minute, 31,185 comments may have been submitted. This is obviously larger than the 10,000th comment limit for each bucket. The FCC’s API thus breaks it down into four calls. The first call limit is 10,000 and offset is blank, the second call limit is 10,000 and offset is 10,000, the third call limit is 10,000 and offset is 20,000, and the fourth call limit is 10,000 and offset is 30,000. The first, second, and third calls will scrape 10,000 comments each, with the fourth call scraping the remaining 1,185 in that date and time frame.
 - c. Every time a new output is created in Postman from the “Template” request, copy and paste the comments into a file.
 - d. I finished collecting all comments up until and including 03/13/20. I included and stopped on line 16,054, which was a date of submission range from 06/21/18 – 03/20/20. All comments and attachment files from 03/14/20 – 03/20/20 were discarded.

Table B2*Procedures for Fetching and Extracting YouTube Videos*

Step	Procedures
1	On the Google-owned video streaming website, YouTube , I began my search for video and video transcript collections by typing in “net neutrality” in the search field. Under “FILTERS,” I sorted the returned results by “Upload date” to manually begin and end the search between 2017 – 2020. More specifically, the first video that was chosen was produced on January 18, 2017. This video was of Ajit Pai being named as the FCC Chairman. The video posted before this was on November 21, 2016. The last video chosen within the 2020 timeframe was March 4, 2020 since the video posted after this was March 30, 2020, which was outside the parameters of the March 13, 2020 research cut-off date.
2	On my laptop, I snapped two screens side-by-side: my browser screen that displayed all video results and a file that hosted all YouTube URLs. I proceeded to scroll through each video between the January 18, 2017 – March 4, 2020 timeline > right-click the video thumbnail > “Copy link address” > paste the copied URL into the file.
3	There was a total of 460 videos manually scraped. I used Google Chrome’s “Bulk URL Opener” extension to open the videos and manually Web-scrape the available transcripts. To do so, copy and paste 48 URLs at a time into the extension one line at a time > “Open All” and open each URL in a new tab > no need to pause all videos once they open since the video does not play until you click on that tab > once you click on the tab, pause the video > click the three ellipses (beside the “SAVE” button under the video itself) > “Open Transcript” > click the three horizontal ellipses > “Toggle timestamps” to turn off timestamps > highlight all text > right-click the highlighted text > copy and paste the text under the appropriate URL back in the file and note the total time duration of the video.
4	Only videos spoken or transcribed in English were scraped; six videos were not spoken and/or transcribed in English. 70 videos had no available transcripts to scrape. And one video had a 404-error message. In Appendix C, the reader will find a list of all YouTube video URLs in descending order by date.

Table B3*Procedures for Fetching and Extracting Mainstream Media News Articles*

Step	Procedures
1	The first online database accessed was Dow Jones Factiva. To produce and download all 21,642 news articles, you must partition the dates of publication to not exceed the 10,000-news article download limit. - The following six dates of publication ranges were entered in the search field as follows: January 20, 2017 – June 30, 2017 (3,476 news articles produced); July 1, 2017 – November 30, 2017 (3,249 news articles produced); December 1, 2017 – February 28, 2018 (5,423 news articles produced); March 1, 2018 – August 31, 2018 (4,293 news articles produced); September 1, 2018 – October 31, 2019 (4,552 news articles produced); and November 1, 2019 – March 13, 2020 (649 news articles produced). - Enter one dates of publication range per search in the “Date – Enter date range...” field > enter “Net Neutrality” in the “Search Form” field > leave the rest of the filters alone (All Authors; All Companies; All Subjects; All Industries; All Regions; English) > “Search” > re-order the results by selecting “Sort by: Oldest first” > check-off 100 news articles at once by clicking “Headlines 1 – 100 of 3476” (for example) > “Download Articles in PDF Format” > “Headline, Article, and TOC” > open the file and save to folder. - One single file held 100 or less news articles per download, which was the maximum amount of news articles you could download into a file format at once.

- 2 Moving on to the **PressReader** database, I was able to access the database fine through York University subscription proxy access services, but I had to create a username and password to access full and downloadable articles.
 - a. In the “Advanced Search” function, type in “Net Neutrality” (with quotation marks) in the search field > check-off “English” in the “Languages” field > check-off “All Publications” in the “Publications” field > leave the “Author” field blank > and check-off “Anytime” in the “Date” field.
 - b. Once the results appear, re-order the results by selecting “Sorted by date.” Manually scroll to find the appropriate date of publication range.
 - c. To download all 2,761 news articles, download one news article at a time. To do so, click each article’s three horizontal ellipses > “Print” > “Print as Text” > save the result as a file to folder.
 - d. Duplicates produced were discarded.
- 3 The last database, **Nexis Uni**, yielded the most total news article results at 35,813.
 - a. Under the “Guided Search” field, check-off “News” > type in “Net Neutrality” (with quotation marks) in the “Search in all News for” field > select “Select date range” in the “Choose date range” field > set the range between January 20, 2017 – March 13, 2020 > “Search.”
 - b. Once the results appear, re-order the results by selecting “Date (oldest-newest)” in the “Sort by:” field. Click the top empty box button to select 10 articles > scroll down to the bottom of the site page and click the next page number > click the same top empty box button to select 10 more articles (for a total of 20) > repeat the last two steps until a total of 90 articles have been selected > click “Download” > under “What do you want to download?,” click “Full documents (90)” > under “File type,” click “PDF” > under “When downloading multiple documents,” click “Group and save documents as a single file (Note: Attachments will be delivered as separate documents)” > click “Download” > save the result as a file to folder.
 - c. Users are only allowed to download the top 1,000 results if downloading 100 articles at a time. To get around this restriction, you must download nine batches of 10 articles per batch (90 total) to be able to eventually scrape all 35,813 news articles for later coding, categorizing, and thematizing.

Table B4

Procedures for Fetching and Extracting Law Documents

Step	Procedures
1	I settled on collecting law documents from six databases by browsing the most-frequently used U.S.-based databases on Osgoode Hall School of Law’s Library website (https://www.osgoode.yorku.ca/library/). On this site, I selected “Discover eResources” to cull through all 161 databases.
2	HeinOnline: a. In “Advanced Search,” under “Search HeinOnline” > type in “Net Neutrality” (with quotation marks) in the “Section Title” field > enter “2017” and “2020” in the “Date:” ranges > “Search” > when the results appear, click to open the “Collection/Library” category > click “U.S. Congressional Documents” > re-order the results by selecting “Volume Date (Oldest First)” in the “Sort by:” field > download each file, one-by-one, and save to folder.
3	Lexis Advance Quicklaw: a. Select the U.S. flag symbol on the left-side of the search bar > click “Advanced Search” > in the main search bar, type in “Net Neutrality” (with quotation marks) > under “Date,” check-off “Date is between” > enter “2017” and “2020” > click “US Cases” on the left-side box > re-order the results by checking-off “Date: oldest-newest” in the “Sort by:” field > check-off each result that falls within the January 20, 2017 – March 13, 2020 date range (download nine batches of 10 law

- documents per batch (90 total)) > “Download” > under “What do you want to download?,” click “Full documents” > under “File type,” select “PDF” > under “When downloading multiple documents,” click “Group and save documents as a single file (Note: Attachments will be delivered as separate documents)” > select “Download” > save the result as a file to folder.
- b. Select “US Statutes and Legislation” on the left-side box > check-off each result that falls within the January 20, 2017 – March 13, 2020 date range (there is no “sort by date” function) (download nine batches of 10 law documents per batch (90 total)) > “Download” > under “What do you want to download?,” select “Full documents” > under “File type,” select “PDF” > under “When downloading multiple documents,” select “Group and save documents as a single file (Note: Attachments will be delivered as separate documents)” > select “Download” > save the result as a file to folder.
 - c. Select “US Administrative Materials” on the left-side box > re-order the results by checking-off “Date: oldest-newest” in the “Sort by:” field > check-off each result that falls within the January 20, 2017 – March 13, 2020 date range (download nine batches of 10 law documents per batch (90 total)) > “Download” > under “What do you want to download?,” select “Full documents” > under “File type,” select “PDF” > under “When downloading multiple documents,” select “Group and save documents as a single file (Note: Attachments will be delivered as separate documents)” > select “Download” > save the result as a file to folder.
 - d. Select “US Briefs, Pleadings, and Motions” on the left-side box > re-order the results by checking-off “Date: oldest-newest” in the “Sort by:” field > check-off each result that falls within the January 20, 2017 – March 13, 2020 date range (download nine batches of 10 law documents per batch (90 total)) > “Download” > under “What do you want to download?,” select “Full documents” > under “File type,” select “PDF” > under “When downloading multiple documents,” select “Group and save documents as a single file (Note: Attachments will be delivered as separate documents)” > select “Download” > save the result as a file to folder.
 - e. Select “US Administrative Codes and Regulations” on the left-side box > check-off each result that falls within the January 20, 2017 – March 13, 2020 date range (there is no “sort by date” function) (download nine batches of 10 law documents per batch (90 total)) > “Download” > under “What do you want to download?,” select “Full documents” > under “File type,” select “PDF” > under “When downloading multiple documents,” select “Group and save documents as a single file (Note: Attachments will be delivered as separate documents)” > select “Download” > save the result as a file to folder.

4 **Nexis Uni:**

- a. Under the “Guided Search” field, check-off “Cases” > check-off “Federal Cases” > type in “Net Neutrality” (with quotation marks) in the “Search in all Cases for” field > select “Select date range” in the “All Dates” field > set the range between January 20, 2017 – March 13, 2020 > “Search” > re-order the results by selecting “Date (oldest-newest)” in the “Sort by:” field > click the top empty box button to select 10 cases > scroll down to the bottom of the page and click the next page number > click the same top empty box button to select 10 more cases (for a total of 20) > repeat the last two steps until a total of 90 cases have been selected > “Download” > under “What do you want to download?,” select “Full documents (90)” > under “File type,” select “PDF” > under “When downloading multiple documents,” select “Group and save documents as a single file (Note: Attachments will be delivered as separate documents)” > “Download” > save the result as a file to folder.
- b. Back on the main search page, under the “Guided Search” field, check-off “Cases” > check-off “State Cases” > type in “Net Neutrality” (with quotation marks) in the “Search in all Cases for” field > select “Select date range” in the “All Dates” field > set the range between January 20, 2017 – March 13, 2020 > “Search” > re-order the results by selecting “Date (oldest-newest)” in the “Sort by:” field > click the top empty box button to select 10 cases > scroll down to the bottom of the page and click the next page number > click the same top empty box button to select 10 more cases (for a total of 20) > repeat the last two steps until a total of 90 cases have been selected > “Download” > under “What do you want to download?,” select “Full documents (90)” > under “File type,” select “PDF” > under “When downloading multiple documents,” select “Group and

save documents as a single file (Note: Attachments will be delivered as separate documents)" > "Download" > save the result as a file to folder.

5 **ProQuest Congressional:**

- a. In the "Advanced" search function, type in "Net Neutrality" (with quotation marks) with "Anywhere" selected > select "Date is between..." in the "Date" field > set the range between January 20, 2017 – March 13, 2020 > re-order the results by selecting "Sort By Date (oldest first)" at the top > click "Download PDF" and click "Replica of Original - Complete" for each result > save each file to folder.

6 **Google Scholar:**

- a. Under the main search bar, check-off "Case Law" and type in "Net Neutrality" (with quotation marks) > click the magnifying glass icon > under the "Any time" field, click "Custom range..." > type in "2017" and "2020" > "Search" > "Sort by date" > open each link to each result one at a time > save each file to folder.

7 **U.S. Government Publishing Office:**

- a. In the "Advanced" search function, click "Date is between" under the "Date Range" field > select "01/20/2017" and "03/13/2020" > check-off "Select All Collections" under the "Refine by Collection" field > type in "Net Neutrality" (with quotation marks) under the "Search In" field under "Full-Text" > click the "Search" button > click the "PDF" button for each result one at a time (note: some results do not need to be downloaded since some contain no pertinent information (e.g. some were part of the Congressional Record Index collection)) > save each file to folder.
-

Appendix C: 460 YouTube URLs Web-Scraped

Table C1

460 YouTube URLs Web-Scraped

https://youtu.be/LMHJ1209CUE	https://youtu.be/9_DkHw7q2DE	https://youtu.be/RAzqwUxndpI
https://youtu.be/IW2Mosej5ZA	https://youtu.be/RgbeB79Dss0	https://youtu.be/1yHA2IY6PnY
https://youtu.be/OjbaXVN56s	https://youtu.be/9AnMJ6ex6SM	https://youtu.be/0bhtS57qVdo
https://youtu.be/G8xd2wygGa4	https://youtu.be/NY2QFxFxjSA	https://youtu.be/nirsicYLv_w
https://youtu.be/cMnBaPRAgeF	https://youtu.be/vkqslKWfZLS	https://youtu.be/G35g5HQVjpU
https://youtu.be/08Duf50Yigk	https://youtu.be/ALtSd0y-HDM	https://youtu.be/oQsfrEYOzqI
https://youtu.be/uMGB62JAjUU	https://youtu.be/cG9RXMAvn4Q	https://youtu.be/GxrTUI2JPNs
https://youtu.be/pu0nt7KfPJg	https://youtu.be/R2w9pgfMSh0	https://youtu.be/8xdGGUBbFpA
https://youtu.be/vVy6PCqJu5c	https://youtu.be/aYyskPo9vfU	https://youtu.be/Zjsy626E6bw
https://youtu.be/SREghWJVQBU	https://youtu.be/MOxyn3QdsUA	https://youtu.be/ovyKjMbMhoQ
https://youtu.be/yi1HDufMJAE	https://youtu.be/D74yE1PgRgE	https://youtu.be/TtZEC21QN-c
https://youtu.be/iNKx_3nRdsE	https://youtu.be/jKNDIw0hD5E	https://youtu.be/UhhiPwL5pIE
https://youtu.be/QFWcFWcmVbk	https://youtu.be/Ia1pPF9ueNE	https://youtu.be/BchikoBQ6YE
https://youtu.be/ghe-3hlNV0Q	https://youtu.be/wMn8d7IeCYM	https://youtu.be/yBrZ_CPgm7o
https://youtu.be/73iGQdlMsFc	https://youtu.be/HiSr9kqaQJI	https://youtu.be/U04MRiGMFqw
https://youtu.be/VgbBLj6sKdg	https://youtu.be/4KVAR_py9_Q	https://youtu.be/AK0f01s82ZA
https://youtu.be/WGVrbQPgjV4	https://youtu.be/yk3bCXqFOyk	https://youtu.be/ihj8JTOHbyE
https://youtu.be/yQv5UMffqCY	https://youtu.be/NgwjgUbFQLc	https://youtu.be/7sEkh5gG704
https://youtu.be/Oizc7XXM4Yc	https://youtu.be/6jcMdJwadk8	https://youtu.be/V0X4Ogig5MU
https://youtu.be/vLjnuVYkK28	https://youtu.be/yt2-126Hn3I	https://youtu.be/Mvt32vvTAN8
https://youtu.be/cplAqknZpvc	https://youtu.be/WJlB_U-OzKU	https://youtu.be/TsVpk00atGc
https://youtu.be/bVGANExYgDE	https://youtu.be/K6fWuUpyPG4	https://youtu.be/3LLNdVmmXYX
https://youtu.be/wMU6PC-n92o	https://youtu.be/pL5lneiNWBQ	https://youtu.be/iSN44b2j6aw
https://youtu.be/iOY2Kkwjps0	https://youtu.be/9cEqHSrqX5w	https://youtu.be/ToB7SsazmUU
https://youtu.be/iNQNh2OG3ps	https://youtu.be/TrpsHFDJn_4	https://youtu.be/V4bHiuDuXJs
https://youtu.be/8uPIL3HIh4E	https://youtu.be/L_ki3yaEkPM	https://youtu.be/yJtD_3X-TmI
https://youtu.be/TJYMUGNgFk	https://youtu.be/5uXsCaakZD8	https://youtu.be/DvmUVT1HZI4
https://youtu.be/m65_NwWdo5Q	https://youtu.be/ZEuTV_oSy4c	https://youtu.be/SC-7fyBfvsW
https://youtu.be/k9ESkk0U-YM	https://youtu.be/cu7VXSRgf3s	https://youtu.be/xCFMGcN9StY
https://youtu.be/NC903LJi0CA	https://youtu.be/uS4Em8OnK7s	https://youtu.be/2xDioWl-xNg
https://youtu.be/e3WOGPhwNRk	https://youtu.be/o3i94oaQw5M	https://youtu.be/kwjCbK2X07k
https://youtu.be/oJwAKCzf9Xg	https://youtu.be/QFYaTH4IKWw	https://youtu.be/-XZNVJxYJEY
https://youtu.be/YU0_g5An5ic	https://youtu.be/ovAXdyXYLNQ	https://youtu.be/qzVC2LDDmwQ
https://youtu.be/9NWfVPwNEKw	https://youtu.be/-J8IQqJrfeA	https://youtu.be/haS7zKFZ3es
https://youtu.be/f4V_JkMwyk0	https://youtu.be/Yp0Q74xE1Rc	https://youtu.be/U1FgLndtyQk
https://youtu.be/7mv4Qx5f2AA	https://youtu.be/cZ5kKGa1osE	https://youtu.be/4-ANnP1HJug
https://youtu.be/sEE7tx8XAs0	https://youtu.be/AFAu6rmF-hY	https://youtu.be/sKrVIwUpKLu
https://youtu.be/mWTzNvFqaXI	https://youtu.be/q79_N2FWysE	https://youtu.be/XT5zuysPme8
https://youtu.be/1jn80uzCfG8	https://youtu.be/DqqZfSLx73g	https://youtu.be/N5EqhuddD-4
https://youtu.be/ZZX3OJ3YNz4	https://youtu.be/9WdRIRF5Zj4	https://youtu.be/HFYMYNwhb6g
https://youtu.be/kxxWYEpf2i0	https://youtu.be/yahjdULhtlc	https://youtu.be/crUdH-Ca8XU
https://youtu.be/ZlI28KLyhT0	https://youtu.be/sp-uHuOwg58	https://youtu.be/DZXb5vw2T_A
https://youtu.be/vb5EciMfpMg	https://youtu.be/Df7owbjrLXY	https://youtu.be/F21SNyw9zug
https://youtu.be/DuKpfx6NhU	https://youtu.be/EKY21rr8G9M	https://youtu.be/ZfpNI4TjmdQ
https://youtu.be/QYAaNIgrpVU	https://youtu.be/GGHSu6ItEB0	https://youtu.be/8yREn390izE
https://youtu.be/YVt6OJ5188M	https://youtu.be/TyEqG-RIC_qk	https://youtu.be/6Jn0QOXZNA
https://youtu.be/RH6bdkf6Tb0	https://youtu.be/mwvxxq5Gx00k	https://youtu.be/neQhMG4izuU
https://youtu.be/0_s8L2vJDHU	https://youtu.be/gkxd3IZ-Ing	https://youtu.be/1zw6Edgjpms
https://youtu.be/Jrr_rgW5Ntc	https://youtu.be/syLzUeEq5yk	https://youtu.be/Zc77m-xdSRk

<https://youtu.be/wr1P3MhvT7M>
https://youtu.be/_GdhxyeNz7w
<https://youtu.be/JfLeXXE0ts8>
<https://youtu.be/pQLTAikhxuc>
<https://youtu.be/nY8KNFQiFvg>
<https://youtu.be/aiZ8xwwycXA>
<https://youtu.be/MVrCkRPjoIY>
<https://youtu.be/OJGKc0wJbc8>
<https://youtu.be/ViHTFIEKkjs>
<https://youtu.be/2-xlBqbNzGU>
<https://youtu.be/1C1cVlwTz9E>
<https://youtu.be/xRAvzkAwjzY>
https://youtu.be/b8v_bhZ4Ms
https://youtu.be/k_LNi5KOp4k
<https://youtu.be/bg4792st5z8>
<https://youtu.be/n5mhmc7D9w>
https://youtu.be/NuSLZFLoG_M
<https://youtu.be/gHd3jIH52mw>
<https://youtu.be/3OBRfjhcFKM>
<https://youtu.be/weYSSCPLxDI>
<https://youtu.be/Y4Oh8gqQJas>
<https://youtu.be/vKwogKVE6Gg>
<https://youtu.be/lprkGyCKo90>
<https://youtu.be/hIULYH6BWA>
<https://youtu.be/bkipGuxIFk>
https://youtu.be/L_rYbkjdYOU
<https://youtu.be/4JwsEEWWoyk>
<https://youtu.be/THel7gTyr-c>
<https://youtu.be/PdcyWgG1btY>
<https://youtu.be/F2ovbLA5O1Q>
<https://youtu.be/BoQNBv7gFDc>
<https://youtu.be/tnpDShVPdZM>
<https://youtu.be/PKqvScmNsRE>
<https://youtu.be/CRp1HYSfZPA>
<https://youtu.be/svJNCJjk0ac>
<https://youtu.be/odl2YwKN7Tw>
<https://youtu.be/sMISGRVz8T4>
<https://youtu.be/f1pC6nIOBJ4>
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<https://youtu.be/Q5C3MvCusxs>
<https://youtu.be/dOIuopXOyD0>
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<https://youtu.be/dop-zeBzbGc>
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<https://youtu.be/xmAdsUN4B68>
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<https://youtu.be/VITpIx106I>
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<https://youtu.be/DuN5Ea8REfM>
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<https://youtu.be/hwExtLEh-IQ>
<https://youtu.be/toIIEERD3Ik>
<https://youtu.be/AeRnDQmMf2Y>
<https://youtu.be/VlaxlaGZlBw>
<https://youtu.be/Q9dpvzFocHs>

https://youtu.be/3MS_k4uc1j0	https://youtu.be/UPrs2T5E5Fk	https://youtu.be/5oZnsF3ubJA
https://youtu.be/5VhXmxvuDVM	https://youtu.be/RMudayXzPWQ	https://youtu.be/krVAn78243U
https://youtu.be/g5iWqdtstx-4	https://youtu.be/tryMMvpWLEE	https://youtu.be/bzGkXQySKL0
https://youtu.be/uNdvwB0wFZU	https://youtu.be/zq-2Yk5OgKc	https://youtu.be/fX2S0-aRxPk
https://youtu.be/5aFZmEpnZfQ	https://youtu.be/rXBvvLvecnc	https://youtu.be/l6UZUhRdD6U
https://youtu.be/eXcwJ3EDahw	https://youtu.be/LFhT6H6pRWg	https://youtu.be/3wgOTNRFPz4
https://youtu.be/RSMpZI7Ih3A	https://youtu.be/IqRHAX8OJkw	https://youtu.be/fDANOlT5DtQ
https://youtu.be/UVWCaS3B9L4	https://youtu.be/BBYuYjiWfq8	https://youtu.be/uyUzLls5XoU
https://youtu.be/TFQMXDLWnsw	https://youtu.be/EdMeIw6o8Xo	https://youtu.be/K88BU3kjZ-c
https://youtu.be/TO6mokouiv4	https://youtu.be/D8CRQZ0nCX0	https://youtu.be/twksX_S3vkg
https://youtu.be/TsvFTD_Ls7o	https://youtu.be/X48yL0QEspI	https://youtu.be/nZEw_6Y0hhU
https://youtu.be/LMkOmCY3ddA	https://youtu.be/oInAlTKlw64	https://youtu.be/QQ-7tUGZo-A
https://youtu.be/lCl_Fcq5a9w	https://youtu.be/Modtcx4Ey0A	https://youtu.be/qSM_B7sEyBA
https://youtu.be/3U-g6ky9-xA	https://youtu.be/CEJKne6D38	https://youtu.be/ABS9jVTLlz8
https://youtu.be/gxVj9ZMYbbo	https://youtu.be/9QIBhAAZhCI	https://youtu.be/vT0QggztQ18
https://youtu.be/8dY-g823g04	https://youtu.be/AdANAZ-bk44	https://youtu.be/y8v8MhSUvCw
https://youtu.be/AuuwrIW57ZA	https://youtu.be/DxHaEQ5qIZI	https://youtu.be/cIFBb3e3tFA
https://youtu.be/Z3yv4puatoU	https://youtu.be/sx-QjcGTobg	https://youtu.be/ndixsBTQbgk
https://youtu.be/8A3i79rXZho	https://youtu.be/6UgeCL41loY	https://youtu.be/uQgCaFaCwHg
https://youtu.be/DUy833rOtBI	https://youtu.be/QvMCDHcHgiM	https://youtu.be/V-uvt0dWP4I
https://youtu.be/GA_oVhyDniA	https://youtu.be/YYLp5Kt0IU	https://youtu.be/_e168pJVkYo
https://youtu.be/GGJMwvZKueY	https://youtu.be/nqJDW_s93rc	https://youtu.be/77k2tIcJ_H0
https://youtu.be/SNYX6oFu8AY	https://youtu.be/3EIEGS2nF-A	https://youtu.be/v5FtuWj1i4Y
https://youtu.be/WYzJvNV8CrE	https://youtu.be/6UwA55jI5Do	https://youtu.be/IB9LrInStgQ
https://youtu.be/XddzkFCoQPY	https://youtu.be/04mb_UKeoZY	https://youtu.be/gkRJ1EPJwHc
https://youtu.be/oEPl6z0sXKo	https://youtu.be/tDCJtPRqzig	https://youtu.be/1NTwXCd6Qqk
https://youtu.be/BMKrj62odX8	https://youtu.be/uTykPyy7tHM	https://youtu.be/QARojwOiYm8
https://youtu.be/Vwgywtkne0o	https://youtu.be/iFkzJc7kJKc	https://youtu.be/6txA3pI0xJI
https://youtu.be/dkuww9kOW1Q	https://youtu.be/jRuEbhjeTmc	https://youtu.be/YBH8Ht6ZatU
https://youtu.be/r1b55uB3ITw	https://youtu.be/7PG3G9iyvVY	https://youtu.be/VyxqRCVwvXU
https://youtu.be/dYVgIGL1E34	https://youtu.be/1T6opRgrGYA	https://youtu.be/byuou9UX2ms
https://youtu.be/U8LHgq3Jlnw	https://youtu.be/G9ycgyJNXbA	https://youtu.be/jXGMqXfYF3Q
https://youtu.be/cSPTnwtxEto	https://youtu.be/0wu7VCA3NDc	https://youtu.be/frMMfXLbqLk
https://youtu.be/WwdS8vaudYg	https://youtu.be/xXTW394KMXy	https://youtu.be/qI5y-sqJT0
https://youtu.be/D9xi8yvgqALo	https://youtu.be/ScCN5wB44aQ	https://youtu.be/ju-bFmN1uUI
https://youtu.be/Ept6weOq_cU	https://youtu.be/7FaIA2_OOCI	https://youtu.be/0kkaY5IJLMk
https://youtu.be/lOylyZJftuw	https://youtu.be/AbJBEBZvDNY	https://youtu.be/92vuuZt7wak
https://youtu.be/U2AV7-KIJ1s	https://youtu.be/R3k0xQ7Rha0	https://youtu.be/pbCO-O66LOE
https://youtu.be/vEzk9IKe5QU	https://youtu.be/I9mxO4MaXZc	https://youtu.be/7qU3JSiU6mc
https://youtu.be/ptpSnmZSDME	https://youtu.be/JucFpDhuF98	https://youtu.be/CYQNj8eJddU
https://youtu.be/2b_n5R13q8g	https://youtu.be/D7FbraGE1ZY	https://youtu.be/jrNWvyE2PHQ
https://youtu.be/Dqx7otY48zc	https://youtu.be/07EFw8WK8Yg	https://youtu.be/TOFyNFOz-BM
https://youtu.be/SZ8GW3xQGgc	https://youtu.be/-5W06fn66Ng	https://youtu.be/6Q5_oV4JB10
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https://youtu.be/kYncoG2zfVk	https://youtu.be/_bwQSOzI91A	https://youtu.be/ZTIfniQLjbQ
https://youtu.be/IwfdVfLQz7E	https://youtu.be/G5td1VmzRco	https://youtu.be/s1IzN9tst28
https://youtu.be/nO_-TEUvCMk	https://youtu.be/xq7YiI_WaLg	https://youtu.be/oEoZ7BnGknI
https://youtu.be/cVxuvzgNI3I	https://youtu.be/vZzIeESoBBM	https://youtu.be/-DYtkKK9P88
		https://youtu.be/lGBXAL8PfQ8

Note. All 460 YouTube URLs Web-scraped are ordered by date posted, from most recent in descending order, between March 4, 2020 – January 18, 2017.

Appendix D: Technical Research Procedures for Organizing & Analyzing Data in NVivo

Table D1

Procedures for Generating the Socio-Legal Codebook Through a Word Frequency Query

Step

Procedures

1

a. Select “Explore” > “Word Frequency” > “Selected Folders” > check-off all three folders > “OK” > “Display words: All” > “With stemmed words” > “Run Query.” The results displayed 273,622 words. “With stemmed words” means that the root word “Word” was used and all of the associated “Similar Words” and forms were included. A screenshot of the initial result of the word frequency query is posted here:

Word	Length	Count	Weighted Percentage (%)	Similar Words
law	4	112712	0.25	#law, law, law', law', 'law, 'law', law#, law', lawed, lawful, 'lawful, 'lawful', 'lawful', 'lawful, lawfully, 'lawfully, lawfulness, lawfulness', lawfulness', lawfulness, lawing, laws, laws', laws', 'laws, 'laws', laws'
law0203w	8	36	0.00	law0203w
law1100	7	1	0.00	law1100
law12	5	1	0.00	law12
law133	6	1	0.00	law133
law165	6	1	0.00	law165
law19	5	1	0.00	law19
law2	4	1	0.00	law2
law360	6	115	0.00	law360
law6	4	2	0.00	law6
law61	5	1	0.00	law61
lawa	4	4	0.00	lawa
lawabiding	10	7	0.00	lawabiding
lawalso	7	1	0.00	lawalso
lawandcrime	11	24	0.00	'lawandcrime, lawandcrime
lawandenvironment	17	2	0.00	lawandenvironment
lawandmore	10	4	0.00	lawandmore
lawannemarie	12	1	0.00	lawannemarie
lawbans	7	1	0.00	lawbans
lawbased	8	1	0.00	lawbased
lawbill	7	1	0.00	lawbill
lawblockchain	13	1	0.00	lawblockchain

b. Order the results by “Word” alphabetically > scroll through each word > highlight and right-click the significant word or phrase you wish to code > “Create As Code” > enter in a number value in sequential order. For example, number “73” was attributed to “acquit.” The numbers were removed in Table 3 so the reader could see the words or phrases only.

c. Some similar words or phrases could not be combined (a limitation in NVivo coding). It would have been ideal to collapse codes by merging words or phrases together. For example, “Legalising” and “Legalistic” had to be coded separately.

d. As one may also notice in Table 3, the terms are not in proper alphabetical order. Sometimes, I would see a word or phrase, code it with a number, then realize there were a few words or phrases above that word or phrase that needed coding, so I coded those words or phrases after the fact.

e. I wrote all corresponding numbers and words down in a file.

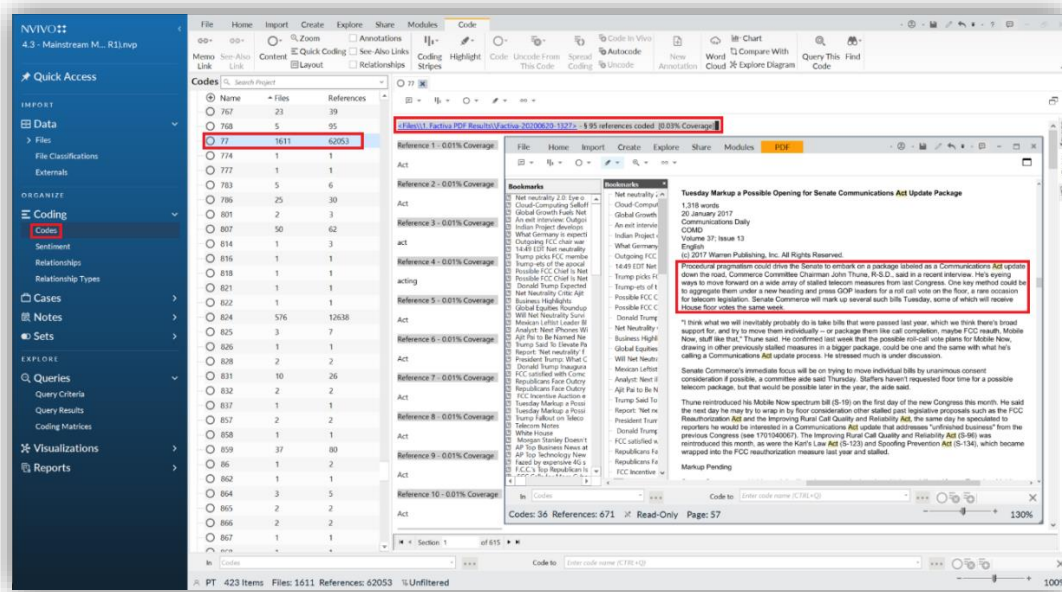
f. As a second round of coding, I manually scrolled through the 1,629 codes to carefully assess whether that word or phrase was truly relatable to the essence of law and regulation. About 26% of the codes were kept for a total of 423.

Table D2

Procedures for Generating the Categorizations of the Advocate, Opponent, and Actor/Institution Classes and their Clusters

Step	Procedures
1	Under the “Codes” tab in NVivo, each code can be opened, each database folder can be opened, and each reference to every passage can be read through and extracted for categorization. To complete the

categorization of codes in NVivo, the four datasets had to be opened separately, along with the 2017 Order dataset, to extract the passage that was linked to the coded word or phrase. In the four datasets, under the “Coding” and “Codes” tab, the 423 codes are displayed by the associated number, the number of files that contain the word or phrase, and the number of references in that dataset. For example, there are 1,611 mainstream media news files (i.e., news articles) and 62,053 references of the stemmed word “act” (coded at “77”). After double-clicking code “77” (second red box from the left in the screenshot below) under the “Coding” and “Codes” tabs (first red box from the left in the screenshot below), the results references and passages can be opened and explored.



- 2 After code “77” has been opened, click the database folder (e.g., “<Files\\1.Factiva PDF Results\\Factiva-20200620-1327>”) (third red box from the left in the screenshot above). A new tab opens in NVivo that provides yellow highlights that signal precisely where in each file the word or phrase has been referenced (fourth red box from the left in the screenshot above). Carefully reading above and below these highlights to understand the context, and determining whether the passage contributes to the understanding of the net neutrality debates as it relates to the essence of law and regulation, was done next. Chosen passages were copied and pasted into a separate file and referenced.
- 3 For just the mainstream media news dataset, I sampled 25% of the data to be potentially read, extracted, and pasted into a separate file. The final total of news articles that were read through is unknown since one single file could contain 90-100 articles, or contain one single article, or contain a random number of articles to finish scraping that online database result. For the YouTube Videos, ECFS Attachment Files, and Law Documents datasets, no further sampling of the data was done. All data that had been consolidated from the collection and coding stages were opened in NVivo to be read and extracted. For the 2017 Order, the relevant passages were extracted. This detailed process for the datasets was the preparatory bridge between the coding and categorization of data. Once all passages had been extracted from the five datasets and saved into five separate files, all files were uploaded to NVivo.
- 4 I categorized passages in NVivo the same way I created code “nodes:” scroll through each passage > highlight and right-click the significant passage I wished to code > “Create As Code” > enter in a number value of the node class or node cluster.

Table D3

Procedures for Generating a Project Map

Step	Procedures
1	Select “Explore” > “Maps” > “Project Map” > title it > “Add Project Items” > check files/categorizations to visualize > “OK” > choose layout style > only check-off “Cases Coding,” “Files Coded,” and “Children” in the top ribbon.
2	Right-click the map > “Export Map...” > enter file name and save as file to folder.

Table D4

Procedures for Generating the Textual Results of each Passage in each Class and Cluster

Step	Procedures
1	Right-click the category to be generated > “Export” > “Export Code” > check-off “Reference View,” “Name,” “Folder and Name” in dropdown menu, “Paragraph Numbers” > “OK” > enter file name and save as file to folder.

Table D5

Procedures for Generating the (1) Word Frequency Queries for the various Class and Cluster Categorizations and by Dataset and (2) Word Cloud

Step	Procedures
1	- Select “Explore” > “Word Frequency” > “Selected Items...” (check-off the file (i.e., dataset) or code(s) (i.e., class(es)) > “OK” > enter desired number of the most frequent words in “Display words” field > enter “3” in “With minimum length” field > “With stemmed words” > “Run Query.” - In the “Summary” tab, right-click the results page > “Export list” > enter file name and save as file to folder. - To save in NVivo: “Save Criteria...” > enter file name, enter “Word Frequency Query” in “Query type” field and enter “Query Criteria” in the “Location” field > “OK.”
2	- Open the Word Frequency Search completed for the entire project > enter “Exact matches” under “Grouping” > “Run Query.” - Select the “Word Cloud” tab > select a word cloud style > right-click the word cloud result > “Export Word Cloud...” > enter file name and save as file to folder.

Table D6

Procedures for Generating the Matrix Categorization Queries for (1) Numbers of Cluster References in the Advocate, Opponent, and Actor/Institution Classes Separated by Dataset, (2) Numbers of Cluster References and Numbers of Datasets Referenced in the Advocate, Opponent, and Actor/Institution Classes, (3) Textual Results of each Passage in each Class’s Two-Cluster Comparisons, (4) Numbers of Cluster References and Numbers of Datasets Referenced for Two-Cluster Comparisons, and (5) Numbers of Dataset References for Two-Cluster Comparisons

Step	Procedures
1	Select “Explore” > “Query Wizard” > “Find coding intersections between two lists of items” > “Add Selected Items...” to add rows > “Codes” > check-off class(es) and cluster(s)

	categorization(s) to compare > “OK” > “Next” > “Add Selected Items...” to add columns > check-off all files > “OK” > “Next” > “Files & Externals” > “Next” > “Run.”
	b. In the ribbon, select “Hide & Unhide” > “Show All Rows” > “Show All Columns” > to show all rows and columns, reset the graph by clicking “Row Percentage” > “Coding References.”
	c. To save the result: “Save Results...” > title > “OK.”
	d. On left side, click “Query Results” > cut and paste new result into “Coding Matrices” folder instead.
	e. Open result > right-click chart > “Export Coding Matrix...” > enter file name and save as file to folder.
2	a. Select “Explore” > “Hierarchy Chart” > “Hierarchy Charts...” > “Amount of coding for: Codes” > “Next” > “Compare: All Codes” and “Coded to: All Files, Externals & Memos” > “Finish.”
	b. In the “Summary” tab > sort by “Number of coding references” > right-click result > “Export List...” > enter file name and save as file to folder. This result cannot be saved in NVivo.
3	a. Select “Explore” > “Query Wizard” > “Search for content based on how it is coded” > “Next” > “All these Codes or Cases” > “Select...” > check-off two clusters you wish to compare (e.g., 1.1 and 1.6.1) > “OK” > “Next” > “Files & Externals” > “Next” > “Save the query criteria” > under “Name,” put “1.1 vs 1.6.1” > “Run.”
	b. To save the result in NVivo: right-click on the results preview > “Store Query Results...” > enter “Create Results as New Code or Case” in “Option” > enter “Query Results” in “Location” > enter “1.1 vs 1.6.1” in “Name” > “OK.”
	c. To save the result to a folder: right-click on the results preview in NVivo > “Export Result...” > “Reference View” > enter file location to save > check-off “Name” and “Paragraph Numbers” > “OK.”
	d. You may review the saved result under “Query Results” and may click on the hyperlinked file name to pull up the text that has the intersection, but the results preview gives you the snapshot of text.
4	a. Select “Explore” > “Hierarchy Chart” > “Hierarchy Charts...” > “Amount of coding for: Codes” > “Next” > “Compare: Selected Items” > “Select” > check-off entire box for “Query Results” > “OK” > “Coded to: All Files, Externals & Memos” > “Finish.”
	b. In the “Summary” tab > sort by “Number of coding references” > right-click result > “Export List...” > enter file name and save as file to folder. This result cannot be saved in NVivo.
5	a. Select “Explore” > “Query Wizard” > “Find coding intersections between two lists of items” > “Add Selected Items...” to add rows > “Query Results” > check-off all two-cluster combination (1.1 vs 1.2) clusters to compare > “OK” > “Next” > “Add Selected Items...” to add columns > check-off all files > “OK” > “Next” > “Files & Externals” > “Next” > “Run.”
	b. In the ribbon, select “Hide & Unhide” > “Show All Rows” > “Show All Columns” > to show all rows and columns, reset the graph by clicking “Row Percentage” > “Coding References.”
	c. To save the result: “Save Results...” > title > “OK.”
	d. On left side, click “Query Results” > cut and paste new result into “Coding Matrices” folder instead.
	e. Open result > right-click chart > “Export Coding Matrix...” > enter file name and save as file to folder.

Table D7

Procedures for Generating the (1) Calculation for the Kappa Coefficient, (2) Re-Categorization of the Sample Data, and (3) Results for Percentage Agreements and Disagreements and Kappa Coefficients

Step	Procedures
1	The following procedures, stated verbatim from NVivo’s website, are explained as:

-
- Calculate the expected frequency by which the agreement between users could have occurred by chance (ΣEF), by summing:
 - The number of units of the source's content coded at the node by user A, multiplied by the number of units coded at the node by user B, divided by the total number of units in the source (EF1)
 - The number of units of the source's content not coded at the node by user A, multiplied by the number of units not coded at the node by user B, divided by the total number of units in the source (EF2)
 - Expected frequency (EF) of the agreement occurring by chance = EF1 + EF2
 - Calculate the Kappa coefficient (K) as equal to:
 - Total units of agreement between the two users (TA) minus the expected frequency (ΣEF) of the agreement occurring by chance, divided by the total units (TU) within the source minus the expected frequency (ΣEF) of the agreement occurring by chance: $K = (TA - \Sigma EF) \div (TU - \Sigma EF)$ (NVivo, n.d.-b).
- 2
- a. To re-categorize a sample in NVivo, I copied the original NVivo project file to a new NVivo project file, and I created a new username and initials to set myself up as a secondary "user." In this new NVivo project file, I decided to keep 25% of the original 500-pages, by re-reading and (potentially) re-highlighting passages in every fourth page, save for the 2017 Order dataset. Instead of re-reading every four-pages out of the 231-pages total of the 2017 Order, I kept the 11-pages that were initially highlighted. Seven-pages were kept from the ECFS Attachment Files dataset, 25-pages were kept from the Law Documents dataset, 33-pages were kept from the Mainstream Media News dataset, and four-pages were kept from the YouTube Videos dataset, for a total of 80-pages. I deleted the first three of every four pages in a file to use as a template.
 - b. I then opened every dataset in the new NVivo project file to see from what passage to what passage needed to be deleted. To do this, click "edit" in a dataset and highlight and delete the passages to be deleted. For the remaining passages, ensure that the "None" option is selected in the "Coding Stripes" button so "user group A" (the secondary user/coder) is not influenced by "user group B" (the initial user/coder).
 - c. After two-months had passed after initially coding the 500-pages of data, I proceeded to re-categorize the classes and clusters in all 80-pages under my new username ("Palme") and initials ("PT2"). These results were compared with my initial results under the old username ("Palmer Taylor") and initials ("PT"). "PT2" was set as "user group A" and "PT" as "user group B."
- 3
- a. Select "Explore" > "Queries" > "Coding Comparison" > select "User group A" as "Palme" and select "OK" > select "User group B" as "Palmer Taylor" and select "OK" > select "All Codes" under "At" > select "Selected Items" under "Scope," select "Select..." to check-off one dataset, and select "OK" > check-off "Display Kappa Coefficient" and "Display percentage agreement" > select "Save Criteria" > name the file and save its "Location" in the "Query Criteria" and select "OK" > select "OK."
 - b. To save the result, open the result in the "Query Criteria" tab under "Queries" and right-click the result, "Export List" > enter file name and save as file to folder.
-

Appendix E: Numbers of Cluster References & Numbers of Datasets Referenced for Two-Cluster Comparisons

Table E1

Numbers of Cluster References and Numbers of Datasets Referenced for Two-Cluster Comparisons

Cluster Comparisons	Number of Cluster References	Number of Datasets Referenced
1.1 vs 3.4	125	3
1.1 vs 1.7	121	4
1.1 vs 1.13	119	4
1.13 vs 3.4	114	3
1.1 vs 3.8	113	4
1.7 vs 3.4	105	3
1.13 vs 3.8	103	4
1.7 vs 1.13	98	3
1.7 vs 3.8	97	3
2.1 vs 2.7	97	5
1.1 vs 1.6.2	94	4
1.6.2 vs 3.4	85	2
1.6.2 vs 3.8	82	4
1.1 vs 3.1	80	5
1.6.2 vs 1.7	79	4
2.15 vs 2.16	79	5
1.6.2 vs 1.13	77	4
2.1 vs 3.9	77	5
2.1 vs 3.1	75	5
1.6.2 vs 3.11	70	4
2.1 vs 3.4	70	3
1.1 vs 1.6.1	69	4
1.7 vs 3.1	69	4
1.1 vs 3.11	67	4
2.1 vs 2.13	66	4
1.1 vs 3.6	65	4
1.13 vs 3.6	65	4
1.1 vs 3.9	64	5
2.1 vs 2.8	64	5
1.7 vs 3.11	63	4
1.15 vs 3.4	62	1
2.1 vs 2.14	61	5
1.1 vs 1.3	60	3
1.13 vs 3.1	60	4
1.13 vs 3.2	60	4
1.2 vs 3.4	58	3

1.3 vs 3.4	58	2
1.6.1 vs 1.7	58	4
1.7 vs 3.6	58	4
1.2 vs 1.15	57	3
1.3 vs 3.8	57	2
2.8 vs 2.14	57	5
2.14 vs 3.1	56	5
2.14 vs 3.9	56	5
1.3 vs 1.15	55	3
2.7 vs 3.4	55	2
1.1 vs 1.15	54	3
1.1 vs 1.2	54	3
1.2 vs 1.3	54	3
2.1 vs 2.6.1	54	5
2.7 vs 3.1	54	5
1.2 vs 3.8	53	3
2.1 vs 3.8	53	4
1.15 vs 3.1	52	2
1.3 vs 1.7	52	4
1.6.1 vs 1.13	52	4
1.12 vs 3.4	51	4
2.7 vs 2.8	51	5
1.7 vs 3.9	50	4
2.1 vs 2.6.2	50	5
2.2 vs 2.6.2	50	5
2.7 vs 2.13	50	3
2.1 vs 3.6	49	5
1.1 vs 3.2	48	3
1.13 vs 3.11	48	3
1.15 vs 3.8	48	2
1.2 vs 1.7	48	2
1.3 vs 1.13	48	4
1.6.1 vs 1.6.2	48	4
1.6.1 vs 3.4	47	3
1.7 vs 1.15	47	2
2.6.2 vs 2.7	47	5
2.7 vs 3.9	47	5
2.8 vs 3.1	46	5
1.12 vs 3.8	45	3
1.14 vs 3.4	45	2
1.3 vs 3.1	45	4
1.6.2 vs 3.1	45	4
2.6.1 vs 2.7	45	5
2.7 vs 2.14	45	5

1.1 vs 1.12	44	3
1.1 vs 1.14	44	3
2.7 vs 3.8	44	3
2.8 vs 3.9	44	5
1.1 vs 1.8	43	4
1.13 vs 1.15	43	3
1.13 vs 3.9	43	4
2.13 vs 3.1	43	4
2.13 vs 3.4	43	2
1.2 vs 3.1	42	3
1.12 vs 1.13	41	3
1.3 vs 1.6.2	41	2
1.6.2 vs 3.6	41	4
2.1 vs 2.17	41	5
1.2 vs 1.6.2	40	2
1.6.1 vs 3.8	39	4
1.6.2 vs 1.15	39	2
1.13 vs 1.14	38	4
1.2 vs 1.13	38	3
1.7 vs 1.12	38	3
2.13 vs 3.8	37	3
2.6.1 vs 2.6.2	37	5
2.6.2 vs 3.1	37	5
2.7 vs 3.6	37	4
1.1 vs 1.16	36	4
1.7 vs 1.14	36	4
1.7 vs 3.2	36	4
2.1 vs 2.16	36	5
2.5 vs 3.1	36	5
1.11 vs 3.4	35	2
1.6.1 vs 3.1	35	3
1.6.1 vs 3.6	35	4
1.1 vs 1.11	34	5
1.7 vs 1.8	34	4
1.8 vs 1.13	34	4
2.1 vs 3.2	34	5
2.13 vs 3.2	34	4
2.8 vs 2.13	34	4
1.14 vs 3.8	33	4
1.8 vs 3.1	33	5
2.1 vs 2.5	33	5
2.6.1 vs 3.1	33	5
2.6.2 vs 3.11	33	4
1.5 vs 3.1	32	5

1.7 vs 1.11	32	2
2.3 vs 3.1	32	4
2.5 vs 3.9	32	5
2.6.2 vs 2.13	32	4
1.13 vs 3.5	31	3
2.1 vs 3.11	31	4
2.13 vs 2.14	31	4
1.1 vs 1.17	30	3
1.1 vs 3.5	30	3
1.11 vs 3.1	30	4
1.6.1 vs 3.11	30	4
2.1 vs 2.3	30	3
2.17 vs 3.1	30	5
1.12 vs 3.1	29	4
1.14 vs 3.6	29	3
1.16 vs 3.1	29	4
1.3 vs 3.11	29	2
1.6.2 vs 3.2	29	4
1.8 vs 3.4	29	2
2.13 vs 3.6	29	4
2.6.1 vs 2.13	29	4
2.6.1 vs 2.8	29	5
1.10 vs 3.4	28	2
1.12 vs 3.9	28	5
1.3 vs 1.12	28	3
1.8 vs 3.6	28	4
1.9 vs 3.4	28	2
2.1 vs 2.4	28	3
2.2 vs 2.15	28	5
2.6.2 vs 3.4	28	1
2.7 vs 2.17	28	5
2.7 vs 3.11	28	4
1.11 vs 1.13	27	4
1.14 vs 3.1	27	4
1.2 vs 3.11	27	2
1.4 vs 3.4	27	3
1.4 vs 3.8	27	4
1.5 vs 3.8	27	4
1.9 vs 1.13	27	4
2.16 vs 3.1	27	5
2.16 vs 3.9	27	5
2.4 vs 3.8	27	3
2.6.1 vs 2.14	27	5
2.6.1 vs 3.4	27	2

2.7 vs 3.2	27	4
1.1 vs 1.6.3	26	3
1.12 vs 1.15	26	2
1.14 vs 3.2	26	2
1.14 vs 3.9	26	4
2.13 vs 3.9	26	4
2.14 vs 2.17	26	5
2.14 vs 3.6	26	4
2.17 vs 3.9	26	5
2.6.1 vs 3.9	26	5
2.6.2 vs 2.8	26	5
1.1 vs 1.4	25	4
1.1 vs 1.9	25	4
1.17 vs 3.1	25	4
1.3 vs 1.11	25	3
1.4 vs 1.7	25	3
1.5 vs 1.13	25	4
1.5 vs 3.4	25	1
1.6.2 vs 1.12	25	2
1.7 vs 3.5	25	4
1.9 vs 3.9	25	4
2.1 vs 2.15	25	4
2.4 vs 2.7	25	3
2.5 vs 2.14	25	5
2.6.2 vs 2.14	25	5
1.1 vs 1.10	24	3
1.13 vs 1.17	24	3
1.2 vs 1.12	24	3
1.3 vs 3.9	24	4
1.8 vs 3.2	24	4
2.13 vs 2.15	24	4
2.14 vs 3.4	24	3
2.15 vs 3.1	24	5
2.2 vs 3.1	24	5
2.3 vs 2.7	24	3
2.6.1 vs 3.11	24	4
1.10 vs 3.8	23	3
1.11 vs 3.8	23	3
1.15 vs 3.11	23	2
1.15 vs 3.9	23	2
1.16 vs 3.4	23	1
1.20 vs 3.4	23	2
1.20 vs 3.8	23	3
1.6.1 vs 3.2	23	3

1.6.1 vs 3.9	23	4
1.6.2 vs 1.6.3	23	4
1.7 vs 1.16	23	4
1.7 vs 1.17	23	3
1.8 vs 3.9	23	5
2.1 vs 2.2	23	5
2.12 vs 3.1	23	5
2.2 vs 2.3	23	5
2.5 vs 2.7	23	5
2.7 vs 2.15	23	4
2.8 vs 3.4	23	3
1.1 vs 1.5	22	3
1.15 vs 3.2	22	3
1.2 vs 3.6	22	3
1.2 vs 3.9	22	4
1.5 vs 3.6	22	4
1.6.2 vs 3.9	22	4
1.6.3 vs 3.4	22	1
2.1 vs 2.12	22	4
2.3 vs 2.13	22	3
2.3 vs 2.15	22	5
2.6.2 vs 3.6	22	3
2.6.2 vs 3.9	22	5
2.6.3 vs 2.7	22	5
2.6.3 vs 3.1	22	5
2.8 vs 2.17	22	5
2.8 vs 3.6	22	4
1.15 vs 3.6	21	3
1.17 vs 3.4	21	1
1.20 vs 3.1	21	4
1.3 vs 3.2	21	4
1.4 vs 1.13	21	4
1.6.2 vs 1.11	21	3
1.6.3 vs 1.7	21	2
1.6.3 vs 3.8	21	3
1.8 vs 1.14	21	3
2.1 vs 2.11	21	5
2.14 vs 2.16	21	5
2.2 vs 2.13	21	3
2.4 vs 3.4	21	2
2.5 vs 3.4	21	3
2.6.1 vs 2.17	21	5
2.6.2 vs 2.6.3	21	5
2.6.2 vs 3.2	21	3

2.8 vs 3.2	21	4
1.1 vs 1.20	20	3
1.10 vs 3.1	20	4
1.11 vs 1.15	20	2
1.11 vs 3.6	20	4
1.17 vs 3.8	20	2
1.3 vs 1.14	20	2
1.3 vs 3.6	20	4
1.6.1 vs 1.8	20	4
1.6.2 vs 1.14	20	2
1.6.2 vs 3.5	20	3
1.8 vs 1.16	20	4
2.1 vs 2.6.3	20	5
2.11 vs 3.1	20	4
2.15 vs 3.4	20	2
2.2 vs 2.7	20	4
2.3 vs 3.8	20	4
2.6.1 vs 3.8	20	2
2.8 vs 3.8	20	4
1.16 vs 3.9	19	4
1.5 vs 1.7	19	4
1.5 vs 3.9	19	4
1.6.3 vs 3.1	19	3
1.8 vs 3.8	19	3
2.12 vs 2.14	19	4
2.14 vs 3.8	19	3
2.16 vs 3.4	19	2
2.7 vs 2.16	19	5
2.8 vs 2.16	19	5
1.10 vs 1.13	18	2
1.12 vs 3.6	18	3
1.13 vs 1.16	18	4
1.13 vs 1.20	18	4
1.2 vs 1.14	18	2
1.6.2 vs 1.10	18	3
1.7 vs 1.10	18	3
1.8 vs 1.17	18	3
2.3 vs 3.4	18	1
2.3 vs 3.9	18	4
2.4 vs 2.13	18	4
2.6.1 vs 3.2	18	4
2.6.2 vs 2.17	18	5
1.10 vs 3.6	17	4
1.11 vs 3.9	17	3

1.12 vs 3.11	17	2
1.12 vs 3.2	17	2
1.14 vs 1.15	17	2
1.16 vs 1.17	17	3
1.18 vs 3.4	17	4
1.2 vs 1.11	17	2
1.3 vs 1.6.1	17	4
1.3 vs 3.5	17	4
1.5 vs 1.14	17	4
1.6.1 vs 1.15	17	2
1.6.1 vs 3.5	17	4
1.6.3 vs 1.13	17	2
1.8 vs 1.12	17	4
1.9 vs 3.8	17	4
2.12 vs 2.13	17	3
2.13 vs 2.16	17	4
2.15 vs 3.8	17	3
2.16 vs 2.17	17	5
2.2 vs 2.8	17	5
2.4 vs 3.1	17	3
2.5 vs 2.17	17	5
2.6.1 vs 2.6.3	17	5
2.7 vs 2.12	17	4
1.10 vs 1.12	16	4
1.10 vs 3.9	16	4
1.14 vs 3.5	16	3
1.3 vs 1.16	16	4
1.3 vs 1.17	16	3
1.3 vs 1.20	16	3
1.3 vs 1.8	16	4
1.6.1 vs 1.14	16	3
1.8 vs 1.15	16	2
1.9 vs 1.12	16	3
2.11 vs 2.13	16	3
2.12 vs 3.9	16	4
2.14 vs 3.11	16	3
2.14 vs 3.2	16	4
2.17 vs 3.4	16	2
2.2 vs 3.8	16	4
2.5 vs 2.13	16	3
2.5 vs 3.8	16	3
2.6.1 vs 2.16	16	4
2.6.3 vs 2.17	16	4
2.6.3 vs 2.8	16	4

2.6.3 vs 3.9	16	5
2.8 vs 2.15	16	5
2.8 vs 3.11	16	3
1.11 vs 1.14	15	3
1.11 vs 3.2	15	3
1.2 vs 3.2	15	3
1.4 vs 3.1	15	2
1.5 vs 1.12	15	4
1.6.3 vs 3.11	15	3
1.6.3 vs 3.6	15	4
1.7 vs 1.20	15	3
2.1 vs 3.5	15	3
2.12 vs 3.4	15	3
2.15 vs 3.2	15	4
2.15 vs 3.6	15	4
2.2 vs 3.4	15	1
2.3 vs 3.6	15	5
2.5 vs 2.6.2	15	4
2.7 vs 2.11	15	3
1.1 vs 1.18	14	3
1.13 vs 1.18	14	4
1.16 vs 3.6	14	3
1.16 vs 3.8	14	2
1.17 vs 3.9	14	5
1.20 vs 3.6	14	3
1.3 vs 1.5	14	3
1.4 vs 1.6.2	14	2
1.6.1 vs 1.11	14	3
1.6.1 vs 1.16	14	4
1.8 vs 1.11	14	4
1.8 vs 3.5	14	4
1.9 vs 3.2	14	2
2.11 vs 3.4	14	2
2.13 vs 3.11	14	2
2.16 vs 3.6	14	2
2.3 vs 2.6.2	14	2
2.5 vs 3.6	14	3
2.6.2 vs 2.15	14	3
1.11 vs 3.5	13	4
1.12 vs 1.17	13	3
1.12 vs 1.18	13	3
1.14 vs 1.16	13	3
1.15 vs 1.16	13	3
1.16 vs 3.2	13	4

1.17 vs 3.6	13	3
1.2 vs 1.20	13	3
1.2 vs 1.6.1	13	2
1.2 vs 3.5	13	3
1.20 vs 3.9	13	3
1.3 vs 1.10	13	2
1.4 vs 1.15	13	2
1.4 vs 3.9	13	3
1.5 vs 1.10	13	4
1.6.3 vs 1.10	13	3
2.13 vs 2.17	13	3
2.13 vs 3.5	13	3
2.15 vs 3.9	13	5
2.2 vs 3.9	13	4
2.3 vs 2.5	13	3
2.3 vs 2.6.1	13	2
2.4 vs 2.14	13	2
2.5 vs 2.16	13	4
2.5 vs 2.8	13	4
2.6.2 vs 3.8	13	1
1.10 vs 1.15	12	1
1.10 vs 1.17	12	4
1.11 vs 1.17	12	4
1.12 vs 1.14	12	2
1.14 vs 1.17	12	3
1.17 vs 3.5	12	3
1.18 vs 3.8	12	3
1.2 vs 1.10	12	3
1.2 vs 1.4	12	2
1.3 vs 1.4	12	2
1.4 vs 1.11	12	2
1.4 vs 1.12	12	3
1.5 vs 1.8	12	4
1.6.2 vs 1.20	12	2
2.11 vs 2.14	12	3
2.14 vs 2.15	12	4
2.2 vs 3.6	12	5
2.3 vs 2.14	12	3
2.3 vs 3.2	12	3
2.4 vs 2.8	12	3
2.5 vs 2.6.1	12	4
2.6.1 vs 3.6	12	2
2.6.3 vs 2.14	12	3
2.6.3 vs 3.11	12	4

2.7 vs 3.5	12	3
2.8 vs 2.11	12	4
2.8 vs 2.12	12	3
2.9 vs 3.9	12	4
1.10 vs 3.11	11	2
1.11 vs 1.12	11	4
1.12 vs 3.5	11	3
1.14 vs 3.11	11	2
1.15 vs 1.20	11	2
1.15 vs 3.5	11	2
1.17 vs 3.2	11	3
1.2 vs 1.16	11	3
1.2 vs 1.5	11	1
1.2 vs 1.8	11	2
1.3 vs 1.6.3	11	2
1.5 vs 1.15	11	1
1.5 vs 3.2	11	2
1.5 vs 3.5	11	3
1.6.1 vs 1.12	11	3
1.6.1 vs 1.9	11	3
1.6.2 vs 1.8	11	4
2.11 vs 3.2	11	2
2.11 vs 3.6	11	2
2.11 vs 3.8	11	2
2.12 vs 3.6	11	2
2.14 vs 3.5	11	3
2.17 vs 3.11	11	3
2.17 vs 3.5	11	3
2.17 vs 3.6	11	4
2.2 vs 2.14	11	5
2.2 vs 2.6.1	11	4
2.3 vs 2.11	11	2
2.3 vs 2.8	11	4
2.4 vs 3.9	11	4
2.5 vs 2.15	11	4
2.5 vs 3.2	11	3
2.6.2 vs 2.16	11	4
1.11 vs 3.11	10	1
1.12 vs 1.20	10	3
1.15 vs 1.17	10	3
1.17 vs 1.20	10	3
1.18 vs 3.1	10	2
1.2 vs 1.17	10	3
1.20 vs 3.2	10	3

1.20 vs 3.5	10	4
1.4 vs 3.11	10	2
1.4 vs 3.6	10	3
1.5 vs 1.11	10	3
1.5 vs 1.17	10	4
1.5 vs 1.6.2	10	2
1.6.3 vs 1.12	10	3
1.6.3 vs 1.15	10	2
1.8 vs 1.20	10	4
2.1 vs 2.10	10	2
2.17 vs 3.8	10	3
2.2 vs 3.2	10	3
2.4 vs 3.2	10	3
2.4 vs 3.6	10	1
2.5 vs 3.3	10	4
2.6.1 vs 2.15	10	3
2.6.3 vs 2.13	10	3
2.6.3 vs 3.2	10	3
1.10 vs 1.20	9	2
1.16 vs 3.5	9	4
1.18 vs 3.2	9	2
1.18 vs 3.6	9	3
1.18 vs 3.9	9	4
1.20 vs 3.11	9	1
1.4 vs 1.6.1	9	3
1.6.1 vs 1.20	9	3
1.7 vs 1.9	9	2
1.9 vs 3.5	9	3
2.1 vs 3.10	9	3
2.1 vs 3.3	9	5
2.10 vs 2.13	9	3
2.11 vs 2.12	9	3
2.3 vs 2.4	9	3
2.4 vs 2.15	9	4
2.4 vs 2.6.1	9	3
2.4 vs 2.6.2	9	2
2.6.2 vs 2.12	9	3
2.6.2 vs 3.5	9	3
2.8 vs 3.5	9	3
1.1 vs 3.10	8	2
1.10 vs 3.2	8	3
1.2 vs 1.18	8	2
1.4 vs 1.10	8	2
1.4 vs 1.8	8	3

1.5 vs 1.16	8	1
1.6.1 vs 1.6.3	8	3
1.6.3 vs 3.5	8	3
1.7 vs 1.18	8	2
1.9 vs 1.14	8	2
1.9 vs 1.18	8	2
1.9 vs 3.1	8	2
2.10 vs 3.4	8	1
2.11 vs 3.9	8	4
2.12 vs 2.16	8	4
2.12 vs 2.17	8	4
2.16 vs 3.10	8	2
2.16 vs 3.8	8	2
2.17 vs 3.2	8	4
2.3 vs 2.12	8	2
2.3 vs 2.16	8	3
2.3 vs 2.17	8	2
2.3 vs 2.6.3	8	2
2.4 vs 2.5	8	3
2.5 vs 2.12	8	4
2.5 vs 2.6.3	8	4
2.5 vs 3.11	8	2
2.6.1 vs 2.12	8	3
2.6.2 vs 2.11	8	3
2.7 vs 2.10	8	2
1.1 vs 3.3	7	2
1.10 vs 1.11	7	4
1.10 vs 3.5	7	2
1.13 vs 3.3	7	4
1.16 vs 1.20	7	4
1.16 vs 3.10	7	2
1.17 vs 3.11	7	2
1.2 vs 1.6.3	7	2
1.4 vs 1.14	7	3
1.4 vs 1.18	7	3
1.5 vs 1.6.1	7	2
1.6.1 vs 1.17	7	3
1.6.2 vs 1.17	7	1
1.6.2 vs 1.18	7	2
1.6.2 vs 1.9	7	4
1.6.3 vs 1.11	7	4
1.6.3 vs 1.14	7	3
2.1 vs 2.18	7	2
2.1 vs 2.9	7	3

2.10 vs 2.14	7	2
2.12 vs 2.15	7	2
2.12 vs 3.2	7	2
2.12 vs 3.8	7	2
2.13 vs 3.3	7	4
2.15 vs 3.11	7	2
2.16 vs 3.2	7	3
2.16 vs 3.3	7	3
2.16 vs 3.5	7	3
2.2 vs 2.16	7	4
2.4 vs 2.11	7	2
2.4 vs 2.12	7	2
2.5 vs 2.11	7	3
2.6.1 vs 2.11	7	2
2.6.3 vs 3.4	7	2
2.8 vs 2.10	7	3
1.10 vs 1.14	6	2
1.11 vs 1.20	6	2
1.12 vs 1.16	6	3
1.14 vs 1.20	6	2
1.3 vs 1.19	6	2
1.3 vs 1.9	6	2
1.5 vs 1.6.3	6	3
1.6.3 vs 3.2	6	2
1.6.3 vs 3.9	6	4
1.8 vs 1.18	6	3
1.9 vs 3.6	6	3
2.1 vs 3.7	6	4
2.10 vs 3.9	6	4
2.11 vs 2.16	6	3
2.11 vs 2.17	6	3
2.13 vs 2.18	6	3
2.13 vs 2.20	6	3
2.14 vs 3.3	6	3
2.15 vs 2.17	6	2
2.17 vs 3.3	6	3
2.2 vs 2.5	6	3
2.3 vs 2.20	6	3
2.3 vs 3.11	6	1
2.3 vs 3.5	6	2
2.4 vs 2.17	6	2
2.5 vs 2.10	6	3
2.5 vs 3.5	6	3
2.6.1 vs 3.5	6	3

2.6.3 vs 2.12	6	3
2.6.3 vs 3.6	6	3
2.7 vs 2.20	6	2
2.9 vs 2.13	6	2
2.9 vs 3.8	6	2
1.10 vs 1.16	5	3
1.10 vs 1.18	5	2
1.11 vs 1.16	5	2
1.12 vs 1.19	5	3
1.14 vs 3.3	5	3
1.15 vs 1.18	5	1
1.16 vs 1.18	5	3
1.18 vs 3.11	5	3
1.18 vs 3.5	5	4
1.19 vs 3.1	5	3
1.19 vs 3.8	5	2
1.4 vs 3.2	5	2
1.5 vs 3.11	5	1
1.5 vs 3.3	5	5
1.6.2 vs 1.16	5	1
1.8 vs 3.11	5	2
1.9 vs 1.15	5	2
1.9 vs 3.7	5	3
2.1 vs 2.20	5	2
2.1 vs 2.21	5	3
2.10 vs 2.12	5	2
2.10 vs 3.6	5	1
2.11 vs 2.15	5	2
2.14 vs 2.18	5	2
2.15 vs 2.20	5	3
2.15 vs 3.5	5	2
2.17 vs 3.10	5	2
2.2 vs 2.12	5	2
2.2 vs 2.17	5	3
2.2 vs 2.20	5	3
2.2 vs 2.4	5	3
2.20 vs 3.1	5	3
2.20 vs 3.8	5	2
2.4 vs 2.10	5	2
2.4 vs 3.11	5	1
2.6.2 vs 2.10	5	2
2.6.3 vs 3.8	5	3
1.11 vs 3.7	4	2
1.13 vs 3.10	4	2

1.13 vs 3.7	4	3
1.14 vs 1.18	4	3
1.15 vs 3.10	4	2
1.16 vs 3.3	4	2
1.17 vs 1.18	4	3
1.17 vs 3.10	4	2
1.17 vs 3.3	4	2
1.18 vs 1.19	4	3
1.19 vs 3.4	4	3
1.3 vs 3.3	4	2
1.4 vs 1.17	4	2
1.4 vs 1.20	4	2
1.4 vs 1.5	4	2
1.4 vs 1.6.3	4	2
1.5 vs 1.20	4	1
1.5 vs 1.9	4	1
1.6.1 vs 1.10	4	2
1.6.3 vs 1.8	4	3
1.7 vs 3.3	4	3
1.8 vs 1.10	4	2
1.8 vs 1.9	4	2
1.9 vs 1.11	4	2
1.9 vs 1.20	4	1
2.10 vs 3.1	4	2
2.10 vs 3.8	4	3
2.12 vs 2.18	4	2
2.12 vs 3.5	4	2
2.16 vs 3.11	4	2
2.17 vs 2.18	4	2
2.18 vs 3.1	4	2
2.18 vs 3.9	4	3
2.2 vs 3.11	4	2
2.3 vs 2.10	4	2
2.4 vs 2.6.3	4	2
2.6.1 vs 2.10	4	2
2.6.3 vs 2.11	4	2
2.6.3 vs 2.15	4	2
2.7 vs 2.9	4	3
2.7 vs 3.10	4	3
2.7 vs 3.3	4	4
2.7 vs 3.7	4	3
2.8 vs 2.18	4	2
2.8 vs 3.3	4	3
1.1 vs 3.7	3	2

1.11 vs 1.18	3	3
1.11 vs 1.19	3	2
1.14 vs 3.10	3	2
1.14 vs 3.7	3	1
1.18 vs 1.20	3	2
1.19 vs 3.6	3	2
1.2 vs 1.9	3	1
1.2 vs 3.10	3	2
1.20 vs 3.10	3	2
1.3 vs 1.18	3	1
1.3 vs 3.10	3	2
1.4 vs 3.5	3	2
1.5 vs 1.18	3	2
1.6.1 vs 1.18	3	2
1.6.3 vs 1.17	3	1
1.6.3 vs 1.20	3	2
1.7 vs 3.7	3	2
1.8 vs 3.10	3	2
1.8 vs 3.3	3	2
1.9 vs 1.16	3	1
2.10 vs 2.15	3	2
2.10 vs 3.11	3	1
2.10 vs 3.2	3	1
2.11 vs 2.18	3	2
2.11 vs 3.10	3	3
2.11 vs 3.11	3	1
2.12 vs 3.7	3	2
2.14 vs 2.21	3	2
2.16 vs 2.18	3	2
2.16 vs 2.20	3	2
2.18 vs 3.4	3	2
2.18 vs 3.8	3	1
2.2 vs 2.11	3	1
2.2 vs 2.6.3	3	2
2.2 vs 3.5	3	2
2.20 vs 3.4	3	1
2.20 vs 3.9	3	2
2.21 vs 3.1	3	3
2.21 vs 3.9	3	2
2.3 vs 2.21	3	3
2.4 vs 2.16	3	3
2.4 vs 2.18	3	1
2.4 vs 3.3	3	3
2.4 vs 3.5	3	3

2.5 vs 2.9	3	2
2.6.1 vs 2.18	3	1
2.6.1 vs 2.20	3	2
2.6.1 vs 3.10	3	2
2.6.3 vs 2.16	3	2
2.7 vs 2.18	3	2
2.7 vs 2.21	3	2
2.8 vs 2.20	3	2
2.8 vs 3.10	3	2
2.8 vs 3.7	3	2
2.9 vs 2.14	3	2
2.9 vs 2.18	3	2
2.9 vs 3.1	3	2
2.9 vs 3.3	3	2
1.1 vs 1.19	2	1
1.12 vs 3.3	2	1
1.13 vs 1.19	2	2
1.15 vs 1.19	2	2
1.15 vs 3.7	2	1
1.16 vs 1.19	2	2
1.16 vs 3.11	2	1
1.17 vs 1.19	2	1
1.17 vs 3.7	2	2
1.18 vs 3.7	2	2
1.19 vs 3.2	2	2
1.19 vs 3.9	2	2
1.2 vs 1.19	2	2
1.20 vs 3.3	2	1
1.4 vs 1.19	2	1
1.6.1 vs 3.10	2	1
1.6.1 vs 3.3	2	1
1.6.1 vs 3.7	2	1
1.6.2 vs 3.7	2	2
1.6.3 vs 1.9	2	1
1.7 vs 1.19	2	2
1.7 vs 3.10	2	2
1.8 vs 1.19	2	2
1.9 vs 1.10	2	1
2.10 vs 2.17	2	2
2.11 vs 2.20	2	2
2.11 vs 3.5	2	2
2.12 vs 2.20	2	1
2.12 vs 3.11	2	1
2.12 vs 3.3	2	1

2.13 vs 2.21	2	1
2.14 vs 2.20	2	1
2.14 vs 3.7	2	1
2.15 vs 2.21	2	2
2.16 vs 3.7	2	2
2.17 vs 2.20	2	2
2.18 vs 3.2	2	2
2.18 vs 3.5	2	1
2.18 vs 3.6	2	1
2.2 vs 2.10	2	2
2.20 vs 3.2	2	1
2.21 vs 3.11	2	1
2.21 vs 3.4	2	1
2.21 vs 3.6	2	1
2.21 vs 3.8	2	1
2.4 vs 2.20	2	2
2.5 vs 2.18	2	2
2.6.1 vs 2.9	2	1
2.6.2 vs 2.20	2	2
2.6.2 vs 2.21	2	1
2.6.3 vs 2.10	2	2
2.6.3 vs 2.20	2	1
2.6.3 vs 2.9	2	2
2.6.3 vs 3.3	2	2
2.6.3 vs 3.5	2	1
2.8 vs 2.21	2	2
2.9 vs 3.4	2	1
2.9 vs 3.6	2	1
1.1 vs 1.21	1	1
1.10 vs 1.19	1	1
1.10 vs 3.10	1	1
1.10 vs 3.7	1	1
1.12 vs 3.10	1	1
1.12 vs 3.7	1	1
1.14 vs 1.19	1	1
1.15 vs 3.3	1	1
1.16 vs 3.7	1	1
1.18 vs 3.10	1	1
1.19 vs 1.20	1	1
1.19 vs 3.10	1	1
1.19 vs 3.11	1	1
1.19 vs 3.5	1	1
1.19 vs 3.7	1	1
1.2 vs 3.3	1	1

1.2 vs 3.7	1	1
1.20 vs 3.7	1	1
1.21 vs 3.1	1	1
1.21 vs 3.6	1	1
1.21 vs 3.8	1	1
1.21 vs 3.9	1	1
1.3 vs 3.7	1	1
1.5 vs 1.19	1	1
1.5 vs 1.21	1	1
1.5 vs 3.10	1	1
1.5 vs 3.7	1	1
1.6.1 vs 1.19	1	1
1.6.1 vs 1.21	1	1
1.6.2 vs 1.19	1	1
1.6.2 vs 3.3	1	1
1.6.3 vs 1.16	1	1
1.6.3 vs 1.18	1	1
1.7 vs 1.21	1	1
1.9 vs 1.17	1	1
1.9 vs 3.10	1	1
1.9 vs 3.11	1	1
1.9 vs 3.3	1	1
2.10 vs 2.11	1	1
2.10 vs 2.16	1	1
2.10 vs 2.18	1	1
2.10 vs 3.3	1	1
2.10 vs 3.5	1	1
2.11 vs 2.21	1	1
2.11 vs 3.7	1	1
2.12 vs 2.21	1	1
2.12 vs 3.10	1	1
2.13 vs 2.19	1	1
2.13 vs 3.7	1	1
2.14 vs 3.10	1	1
2.15 vs 2.18	1	1
2.15 vs 3.10	1	1
2.15 vs 3.3	1	1
2.16 vs 2.21	1	1
2.17 vs 2.21	1	1
2.17 vs 3.7	1	1
2.18 vs 3.3	1	1
2.19 vs 2.20	1	1
2.19 vs 3.6	1	1
2.19 vs 3.9	1	1

2.2 vs 2.18	1	1
2.2 vs 2.19	1	1
2.2 vs 2.21	1	1
2.2 vs 2.9	1	1
2.2 vs 3.10	1	1
2.2 vs 3.3	1	1
2.20 vs 2.21	1	1
2.20 vs 3.10	1	1
2.20 vs 3.11	1	1
2.20 vs 3.6	1	1
2.21 vs 3.2	1	1
2.21 vs 3.5	1	1
2.3 vs 2.18	1	1
2.3 vs 2.19	1	1
2.3 vs 2.9	1	1
2.3 vs 3.10	1	1
2.3 vs 3.3	1	1
2.4 vs 2.9	1	1
2.4 vs 3.10	1	1
2.5 vs 2.21	1	1
2.5 vs 3.7	1	1
2.6.1 vs 3.3	1	1
2.6.1 vs 3.7	1	1
2.6.2 vs 2.18	1	1
2.6.2 vs 2.9	1	1
2.6.2 vs 3.3	1	1
2.6.3 vs 2.18	1	1
2.6.3 vs 2.21	1	1
2.6.3 vs 3.7	1	1
2.8 vs 2.9	1	1
2.9 vs 2.10	1	1
2.9 vs 2.11	1	1
2.9 vs 2.12	1	1
2.9 vs 2.15	1	1
2.9 vs 2.16	1	1
2.9 vs 2.17	1	1
2.9 vs 3.5	1	1
2.9 vs 3.7	1	1

Note. Two-cluster comparisons were not listed if the numbers of cluster references and numbers of datasets referenced all equalled zero.

Appendix F: Numbers of Dataset References for Two-Cluster Comparisons

Table F1

Numbers of Dataset References for Two-Cluster Comparisons

Cluster Comparisons	2017 Order	ECFS Attachments	YouTube Videos	Law Documents	Mainstream Media News
1.1 vs 1.10	0	0	1	3	20
1.1 vs 1.11	1	1	1	2	29
1.1 vs 1.12	0	1	0	11	32
1.1 vs 1.13	0	8	6	16	89
1.1 vs 1.14	0	3	0	8	33
1.1 vs 1.15	0	1	0	8	45
1.1 vs 1.16	0	6	4	7	19
1.1 vs 1.17	0	6	0	5	19
1.1 vs 1.18	0	3	0	8	3
1.1 vs 1.19	0	0	0	2	0
1.1 vs 1.2	0	2	0	6	46
1.1 vs 1.20	0	2	0	2	16
1.1 vs 1.21	0	0	1	0	0
1.1 vs 1.3	0	4	0	10	46
1.1 vs 1.4	0	1	1	4	19
1.1 vs 1.5	0	2	0	3	17
1.1 vs 1.6.1	0	12	5	10	42
1.1 vs 1.6.2	0	5	4	9	76
1.1 vs 1.6.3	0	1	0	6	19
1.1 vs 1.7	0	6	7	16	92
1.1 vs 1.8	0	10	2	12	19
1.1 vs 1.9	0	1	2	9	13
1.1 vs 3.1	1	8	1	14	56
1.1 vs 3.10	0	0	0	4	4
1.1 vs 3.11	0	3	3	4	57
1.1 vs 3.2	0	4	0	12	32
1.1 vs 3.3	0	2	0	0	5
1.1 vs 3.4	0	0	1	4	120
1.1 vs 3.5	0	6	0	2	22
1.1 vs 3.6	0	15	3	7	40
1.1 vs 3.7	0	0	1	0	2
1.1 vs 3.8	0	2	3	17	91
1.1 vs 3.9	1	5	10	10	38
1.10 vs 1.11	0	1	1	1	4
1.10 vs 1.12	1	0	1	2	12
1.10 vs 1.13	0	0	0	2	16
1.10 vs 1.14	0	0	0	1	5

1.10 vs 1.15	0	0	0	0	12
1.10 vs 1.16	0	1	0	3	1
1.10 vs 1.17	0	2	1	3	6
1.10 vs 1.18	0	1	0	0	4
1.10 vs 1.19	0	0	0	0	1
1.10 vs 1.20	0	0	0	3	6
1.10 vs 3.1	0	2	2	4	12
1.10 vs 3.10	0	0	0	1	0
1.10 vs 3.11	0	0	1	0	10
1.10 vs 3.2	0	0	1	1	6
1.10 vs 3.4	1	0	0	0	27
1.10 vs 3.5	0	0	0	1	6
1.10 vs 3.6	0	2	3	1	11
1.10 vs 3.7	0	0	1	0	0
1.10 vs 3.8	0	0	2	4	17
1.10 vs 3.9	1	0	2	2	11
1.11 vs 1.12	2	0	1	1	7
1.11 vs 1.13	0	1	1	6	19
1.11 vs 1.14	0	1	0	3	11
1.11 vs 1.15	0	0	0	5	15
1.11 vs 1.16	0	1	0	0	4
1.11 vs 1.17	2	1	0	5	4
1.11 vs 1.18	0	1	1	0	1
1.11 vs 1.19	0	0	1	2	0
1.11 vs 1.20	0	0	0	4	2
1.11 vs 3.1	3	1	0	9	17
1.11 vs 3.11	0	0	0	0	10
1.11 vs 3.2	0	0	1	7	7
1.11 vs 3.4	0	0	2	0	33
1.11 vs 3.5	0	2	1	4	6
1.11 vs 3.6	0	1	1	8	10
1.11 vs 3.7	0	0	2	0	2
1.11 vs 3.8	0	0	1	6	16
1.11 vs 3.9	3	0	1	0	13
1.12 vs 1.13	0	0	2	15	24
1.12 vs 1.14	0	0	0	3	9
1.12 vs 1.15	0	0	0	6	20
1.12 vs 1.16	0	0	1	2	3
1.12 vs 1.17	2	0	0	3	8
1.12 vs 1.18	0	0	1	9	3
1.12 vs 1.19	0	0	2	2	1
1.12 vs 1.20	0	0	1	2	7
1.12 vs 3.1	2	0	2	8	17
1.12 vs 3.10	0	0	0	0	1

1.12 vs 3.11	0	0	0	3	14
1.12 vs 3.2	0	0	0	11	6
1.12 vs 3.3	0	0	0	0	2
1.12 vs 3.4	1	0	1	9	40
1.12 vs 3.5	0	0	2	4	5
1.12 vs 3.6	0	0	5	1	12
1.12 vs 3.7	0	0	0	1	0
1.12 vs 3.8	0	0	1	14	30
1.12 vs 3.9	3	1	3	9	12
1.13 vs 1.14	0	2	1	8	27
1.13 vs 1.15	0	1	0	6	36
1.13 vs 1.16	0	2	3	3	10
1.13 vs 1.17	0	3	0	7	14
1.13 vs 1.18	0	2	1	8	3
1.13 vs 1.19	0	0	0	1	1
1.13 vs 1.20	0	1	1	3	13
1.13 vs 3.1	0	2	7	11	40
1.13 vs 3.10	0	0	0	2	2
1.13 vs 3.11	0	0	2	1	45
1.13 vs 3.2	0	3	2	20	35
1.13 vs 3.3	0	1	1	1	4
1.13 vs 3.4	0	0	1	9	104
1.13 vs 3.5	0	3	0	7	21
1.13 vs 3.6	0	5	5	11	44
1.13 vs 3.7	0	0	1	1	2
1.13 vs 3.8	0	2	5	15	81
1.13 vs 3.9	0	1	3	9	30
1.14 vs 1.15	0	0	0	1	16
1.14 vs 1.16	0	1	0	2	10
1.14 vs 1.17	0	2	0	2	8
1.14 vs 1.18	0	1	0	1	2
1.14 vs 1.19	0	0	0	0	1
1.14 vs 1.20	0	0	0	1	5
1.14 vs 3.1	0	2	1	8	16
1.14 vs 3.10	0	0	0	1	2
1.14 vs 3.11	0	1	0	0	10
1.14 vs 3.2	0	0	0	11	15
1.14 vs 3.3	0	1	1	0	3
1.14 vs 3.4	0	0	0	1	44
1.14 vs 3.5	0	3	0	4	9
1.14 vs 3.6	0	3	0	9	17
1.14 vs 3.7	0	0	0	0	3
1.14 vs 3.8	0	1	1	3	28
1.14 vs 3.9	0	1	2	3	20

1.15 vs 1.16	0	1	0	1	11
1.15 vs 1.17	0	1	0	4	5
1.15 vs 1.18	0	0	0	0	5
1.15 vs 1.19	0	0	0	1	1
1.15 vs 1.20	0	0	0	1	10
1.15 vs 3.1	0	0	0	9	43
1.15 vs 3.10	0	0	0	1	3
1.15 vs 3.11	0	0	0	3	20
1.15 vs 3.2	0	1	0	6	15
1.15 vs 3.3	0	0	0	0	1
1.15 vs 3.4	0	0	0	0	62
1.15 vs 3.5	0	0	0	3	8
1.15 vs 3.6	0	1	0	5	15
1.15 vs 3.7	0	0	0	0	2
1.15 vs 3.8	0	0	0	7	41
1.15 vs 3.9	0	0	0	1	22
1.16 vs 1.17	0	6	0	5	6
1.16 vs 1.18	0	1	0	2	2
1.16 vs 1.19	0	0	0	1	1
1.16 vs 1.20	0	1	1	2	3
1.16 vs 3.1	0	5	1	6	17
1.16 vs 3.10	0	0	0	3	4
1.16 vs 3.11	0	0	0	0	2
1.16 vs 3.2	0	3	2	2	6
1.16 vs 3.3	0	1	0	0	3
1.16 vs 3.4	0	0	0	0	23
1.16 vs 3.5	0	4	1	1	3
1.16 vs 3.6	0	7	2	0	5
1.16 vs 3.7	0	0	0	0	1
1.16 vs 3.8	0	0	0	6	8
1.16 vs 3.9	0	1	5	3	10
1.17 vs 1.18	0	1	0	1	2
1.17 vs 1.19	0	0	0	2	0
1.17 vs 1.20	0	1	0	6	3
1.17 vs 3.1	2	5	0	8	10
1.17 vs 3.10	0	0	0	3	1
1.17 vs 3.11	0	0	1	0	6
1.17 vs 3.2	0	3	0	3	5
1.17 vs 3.3	0	2	0	0	2
1.17 vs 3.4	0	0	0	0	21
1.17 vs 3.5	0	4	0	4	4
1.17 vs 3.6	0	6	0	3	4
1.17 vs 3.7	0	0	1	0	1
1.17 vs 3.8	0	0	0	9	11

1.17 vs 3.9	2	1	1	1	9
1.18 vs 1.19	0	0	1	1	2
1.18 vs 1.20	0	1	0	0	2
1.18 vs 3.1	0	4	0	0	6
1.18 vs 3.10	0	0	0	1	0
1.18 vs 3.11	0	0	1	2	2
1.18 vs 3.2	0	0	0	6	3
1.18 vs 3.4	0	1	1	6	9
1.18 vs 3.5	0	1	1	2	1
1.18 vs 3.6	0	4	1	0	4
1.18 vs 3.7	0	0	1	1	0
1.18 vs 3.8	0	2	0	6	4
1.18 vs 3.9	0	2	2	4	1
1.19 vs 1.20	0	0	0	1	0
1.19 vs 3.1	0	0	1	2	2
1.19 vs 3.10	0	0	0	1	0
1.19 vs 3.11	0	0	1	0	0
1.19 vs 3.2	0	0	0	1	1
1.19 vs 3.4	0	0	1	1	2
1.19 vs 3.5	0	0	1	0	0
1.19 vs 3.6	0	0	2	0	1
1.19 vs 3.7	0	0	1	0	0
1.19 vs 3.8	0	0	0	4	1
1.19 vs 3.9	0	0	1	1	0
1.2 vs 1.10	1	0	0	1	10
1.2 vs 1.11	0	0	0	4	13
1.2 vs 1.12	1	0	0	7	16
1.2 vs 1.13	0	1	0	4	33
1.2 vs 1.14	0	0	0	1	17
1.2 vs 1.15	0	1	0	11	45
1.2 vs 1.16	0	1	0	2	8
1.2 vs 1.17	0	1	0	4	5
1.2 vs 1.18	0	2	0	0	6
1.2 vs 1.19	0	0	0	1	1
1.2 vs 1.20	0	1	0	1	11
1.2 vs 1.3	0	1	0	12	41
1.2 vs 1.4	0	0	0	2	10
1.2 vs 1.5	0	0	0	0	11
1.2 vs 1.6.1	0	0	0	2	11
1.2 vs 1.6.2	0	0	0	3	37
1.2 vs 1.6.3	0	0	0	2	5
1.2 vs 1.7	0	0	0	9	39
1.2 vs 1.8	0	0	0	5	6
1.2 vs 1.9	0	0	0	0	3

1.2 vs 3.1	0	2	0	7	33
1.2 vs 3.10	0	0	0	1	2
1.2 vs 3.11	0	0	0	3	24
1.2 vs 3.2	0	1	0	3	11
1.2 vs 3.3	0	0	0	0	1
1.2 vs 3.4	1	1	0	0	56
1.2 vs 3.5	0	1	0	3	9
1.2 vs 3.6	0	2	0	3	17
1.2 vs 3.7	0	0	0	0	1
1.2 vs 3.8	0	1	0	8	44
1.2 vs 3.9	1	2	0	2	17
1.20 vs 3.1	0	2	1	6	12
1.20 vs 3.10	0	0	0	1	2
1.20 vs 3.11	0	0	0	0	9
1.20 vs 3.2	0	1	0	2	7
1.20 vs 3.3	0	0	0	0	2
1.20 vs 3.4	0	1	0	0	22
1.20 vs 3.5	0	1	1	1	7
1.20 vs 3.6	0	2	0	1	11
1.20 vs 3.7	0	0	0	0	1
1.20 vs 3.8	0	1	0	6	16
1.20 vs 3.9	0	1	1	0	11
1.21 vs 3.1	0	0	0	1	0
1.21 vs 3.6	0	0	1	0	0
1.21 vs 3.8	0	0	0	1	0
1.21 vs 3.9	0	0	0	1	0
1.3 vs 1.10	0	0	0	2	11
1.3 vs 1.11	0	1	0	8	16
1.3 vs 1.12	0	0	2	9	17
1.3 vs 1.13	0	2	1	8	37
1.3 vs 1.14	0	0	0	1	19
1.3 vs 1.15	0	1	0	13	41
1.3 vs 1.16	0	2	2	2	10
1.3 vs 1.17	0	2	0	6	8
1.3 vs 1.18	0	0	0	0	3
1.3 vs 1.19	0	0	0	4	2
1.3 vs 1.20	0	0	1	4	11
1.3 vs 1.4	0	0	0	4	8
1.3 vs 1.5	0	0	2	1	11
1.3 vs 1.6.1	0	1	1	3	12
1.3 vs 1.6.2	0	0	0	5	36
1.3 vs 1.6.3	0	0	0	3	8
1.3 vs 1.7	0	1	1	13	37
1.3 vs 1.8	0	1	1	8	6

1.3 vs 1.9	0	0	0	1	5
1.3 vs 3.1	0	1	1	11	32
1.3 vs 3.10	0	0	0	1	2
1.3 vs 3.11	0	0	0	4	25
1.3 vs 3.2	0	1	1	6	13
1.3 vs 3.3	0	1	0	0	3
1.3 vs 3.4	0	0	0	1	57
1.3 vs 3.5	0	3	1	3	10
1.3 vs 3.6	0	1	1	4	14
1.3 vs 3.7	0	0	0	0	1
1.3 vs 3.8	0	0	0	14	43
1.3 vs 3.9	0	1	2	3	18
1.4 vs 1.10	0	0	0	1	7
1.4 vs 1.11	0	0	0	3	9
1.4 vs 1.12	0	0	1	4	7
1.4 vs 1.13	0	1	2	4	14
1.4 vs 1.14	0	1	0	1	5
1.4 vs 1.15	0	0	0	2	11
1.4 vs 1.17	0	0	0	2	2
1.4 vs 1.18	0	1	0	2	4
1.4 vs 1.19	0	0	0	2	0
1.4 vs 1.20	0	0	0	1	3
1.4 vs 1.5	0	1	0	0	3
1.4 vs 1.6.1	0	1	2	0	6
1.4 vs 1.6.2	0	0	0	1	13
1.4 vs 1.6.3	0	0	0	1	3
1.4 vs 1.7	0	0	3	5	17
1.4 vs 1.8	0	1	0	2	5
1.4 vs 3.1	0	0	0	2	13
1.4 vs 3.11	0	0	0	1	9
1.4 vs 3.2	0	0	0	1	4
1.4 vs 3.4	0	0	1	1	25
1.4 vs 3.5	0	0	0	1	2
1.4 vs 3.6	0	1	0	2	7
1.4 vs 3.8	0	1	2	7	17
1.4 vs 3.9	0	0	1	3	9
1.5 vs 1.10	0	1	2	2	8
1.5 vs 1.11	2	0	0	1	7
1.5 vs 1.12	2	0	2	1	10
1.5 vs 1.13	0	2	1	6	16
1.5 vs 1.14	0	2	1	4	10
1.5 vs 1.15	0	0	0	0	11
1.5 vs 1.16	0	0	0	0	8
1.5 vs 1.17	2	2	0	1	5

1.5 vs 1.18	0	1	0	0	2
1.5 vs 1.19	0	0	0	0	1
1.5 vs 1.20	0	0	0	0	4
1.5 vs 1.21	0	0	0	1	0
1.5 vs 1.6.1	0	1	0	0	6
1.5 vs 1.6.2	0	0	1	0	9
1.5 vs 1.6.3	0	0	2	1	3
1.5 vs 1.7	0	1	1	3	14
1.5 vs 1.8	1	2	0	3	6
1.5 vs 1.9	0	0	0	0	4
1.5 vs 3.1	3	2	5	7	15
1.5 vs 3.10	0	0	0	0	1
1.5 vs 3.11	0	0	0	0	5
1.5 vs 3.2	0	0	0	4	7
1.5 vs 3.3	1	1	1	1	1
1.5 vs 3.4	0	0	0	0	25
1.5 vs 3.5	0	0	1	3	7
1.5 vs 3.6	0	3	3	4	12
1.5 vs 3.7	0	0	0	0	1
1.5 vs 3.8	0	1	2	7	17
1.5 vs 3.9	3	0	4	3	9
1.6.1 vs 1.10	0	0	1	0	3
1.6.1 vs 1.11	0	1	0	2	11
1.6.1 vs 1.12	0	0	1	3	7
1.6.1 vs 1.13	0	4	2	8	38
1.6.1 vs 1.14	0	1	0	4	11
1.6.1 vs 1.15	0	0	0	3	14
1.6.1 vs 1.16	0	3	3	1	7
1.6.1 vs 1.17	0	2	0	2	3
1.6.1 vs 1.18	0	1	0	0	2
1.6.1 vs 1.19	0	0	0	0	1
1.6.1 vs 1.20	0	2	1	0	6
1.6.1 vs 1.21	0	0	1	0	0
1.6.1 vs 1.6.2	0	5	2	6	35
1.6.1 vs 1.6.3	0	1	0	3	4
1.6.1 vs 1.7	0	4	5	8	41
1.6.1 vs 1.8	0	4	2	6	8
1.6.1 vs 1.9	0	1	0	5	5
1.6.1 vs 3.1	0	3	0	7	25
1.6.1 vs 3.10	0	0	0	0	2
1.6.1 vs 3.11	0	3	1	2	24
1.6.1 vs 3.2	0	2	0	6	15
1.6.1 vs 3.3	0	0	0	0	2
1.6.1 vs 3.4	0	0	1	1	45

1.6.1 vs 3.5	0	2	1	2	12
1.6.1 vs 3.6	0	9	3	4	19
1.6.1 vs 3.7	0	0	0	0	2
1.6.1 vs 3.8	0	2	2	6	29
1.6.1 vs 3.9	0	2	2	4	15
1.6.2 vs 1.10	0	0	2	1	15
1.6.2 vs 1.11	0	0	1	1	19
1.6.2 vs 1.12	0	0	0	4	21
1.6.2 vs 1.13	0	1	2	6	68
1.6.2 vs 1.14	0	0	0	2	18
1.6.2 vs 1.15	0	0	0	3	36
1.6.2 vs 1.16	0	0	0	0	5
1.6.2 vs 1.17	0	0	0	0	7
1.6.2 vs 1.18	0	0	0	3	4
1.6.2 vs 1.19	0	0	0	0	1
1.6.2 vs 1.20	0	0	0	1	11
1.6.2 vs 1.6.3	0	1	2	5	15
1.6.2 vs 1.7	0	3	4	6	66
1.6.2 vs 1.8	0	1	1	1	8
1.6.2 vs 1.9	0	1	2	2	2
1.6.2 vs 3.1	0	3	1	4	37
1.6.2 vs 3.11	0	3	4	4	59
1.6.2 vs 3.2	0	1	1	3	24
1.6.2 vs 3.3	0	0	0	0	1
1.6.2 vs 3.4	0	0	0	1	84
1.6.2 vs 3.5	0	1	0	1	18
1.6.2 vs 3.6	0	4	2	2	33
1.6.2 vs 3.7	0	0	1	0	1
1.6.2 vs 3.8	0	1	3	7	71
1.6.2 vs 3.9	0	1	2	1	18
1.6.3 vs 1.10	0	0	4	2	7
1.6.3 vs 1.11	0	1	1	1	4
1.6.3 vs 1.12	0	0	1	2	7
1.6.3 vs 1.13	0	0	0	1	16
1.6.3 vs 1.14	0	2	0	1	4
1.6.3 vs 1.15	0	0	0	3	7
1.6.3 vs 1.16	0	0	0	0	1
1.6.3 vs 1.17	0	0	0	0	3
1.6.3 vs 1.18	0	0	0	1	0
1.6.3 vs 1.20	0	0	0	1	2
1.6.3 vs 1.7	0	0	0	5	16
1.6.3 vs 1.8	0	1	0	1	2
1.6.3 vs 1.9	0	0	0	0	2
1.6.3 vs 3.1	0	0	2	7	10

1.6.3 vs 3.11	0	2	0	3	10
1.6.3 vs 3.2	0	0	0	2	4
1.6.3 vs 3.4	0	0	0	0	22
1.6.3 vs 3.5	0	1	0	1	6
1.6.3 vs 3.6	0	1	4	2	8
1.6.3 vs 3.8	0	0	1	4	16
1.6.3 vs 3.9	0	1	2	1	2
1.7 vs 1.10	0	1	0	2	15
1.7 vs 1.11	0	0	0	4	28
1.7 vs 1.12	0	0	2	10	26
1.7 vs 1.13	0	0	7	11	80
1.7 vs 1.14	0	1	1	7	27
1.7 vs 1.15	0	0	0	9	38
1.7 vs 1.16	0	3	3	3	14
1.7 vs 1.17	0	3	0	9	11
1.7 vs 1.18	0	0	0	3	5
1.7 vs 1.19	0	0	0	1	1
1.7 vs 1.20	0	0	1	2	12
1.7 vs 1.21	0	0	1	0	0
1.7 vs 1.8	0	2	2	14	16
1.7 vs 1.9	0	0	0	3	6
1.7 vs 3.1	0	5	2	13	49
1.7 vs 3.10	0	0	0	1	1
1.7 vs 3.11	0	1	3	5	54
1.7 vs 3.2	0	2	1	8	25
1.7 vs 3.3	0	0	1	1	2
1.7 vs 3.4	0	0	1	2	102
1.7 vs 3.5	0	2	1	5	17
1.7 vs 3.6	0	6	4	10	38
1.7 vs 3.7	0	0	1	0	2
1.7 vs 3.8	0	0	3	15	79
1.7 vs 3.9	0	2	8	6	34
1.8 vs 1.10	0	0	0	1	3
1.8 vs 1.11	0	1	1	5	7
1.8 vs 1.12	0	1	1	5	10
1.8 vs 1.13	0	4	2	12	16
1.8 vs 1.14	0	5	0	8	8
1.8 vs 1.15	0	0	0	6	10
1.8 vs 1.16	0	7	2	5	6
1.8 vs 1.17	0	5	0	9	4
1.8 vs 1.18	0	1	0	3	2
1.8 vs 1.19	0	0	0	1	1
1.8 vs 1.20	0	1	1	3	5
1.8 vs 1.9	0	0	0	3	1

1.8 vs 3.1	1	5	1	12	14
1.8 vs 3.10	0	0	0	2	1
1.8 vs 3.11	0	1	0	0	4
1.8 vs 3.2	0	2	1	12	9
1.8 vs 3.3	1	2	0	0	0
1.8 vs 3.4	0	0	0	2	27
1.8 vs 3.5	0	7	1	4	2
1.8 vs 3.6	0	7	2	9	10
1.8 vs 3.8	0	1	0	8	10
1.8 vs 3.9	1	2	3	4	13
1.9 vs 1.10	0	0	0	0	2
1.9 vs 1.11	0	0	0	2	2
1.9 vs 1.12	0	0	1	11	4
1.9 vs 1.13	0	1	2	15	9
1.9 vs 1.14	0	0	0	2	6
1.9 vs 1.15	0	0	0	1	4
1.9 vs 1.16	0	0	0	0	3
1.9 vs 1.17	0	0	0	0	1
1.9 vs 1.18	0	0	1	7	0
1.9 vs 1.20	0	0	0	0	4
1.9 vs 3.1	0	0	0	1	7
1.9 vs 3.10	0	0	0	0	1
1.9 vs 3.11	0	0	0	1	0
1.9 vs 3.2	0	0	0	11	3
1.9 vs 3.3	0	0	0	0	1
1.9 vs 3.4	0	0	0	9	19
1.9 vs 3.5	0	1	0	4	4
1.9 vs 3.6	0	0	1	2	3
1.9 vs 3.7	0	0	1	1	3
1.9 vs 3.8	0	1	1	6	9
1.9 vs 3.9	0	1	4	9	11
2.1 vs 2.10	0	0	0	2	8
2.1 vs 2.11	1	1	1	7	11
2.1 vs 2.12	5	0	1	6	10
2.1 vs 2.13	0	5	4	19	38
2.1 vs 2.14	18	9	4	12	18
2.1 vs 2.15	4	1	0	6	14
2.1 vs 2.16	3	11	4	3	15
2.1 vs 2.17	12	6	2	8	13
2.1 vs 2.18	0	0	0	5	2
2.1 vs 2.2	4	1	2	6	10
2.1 vs 2.20	0	0	0	2	3
2.1 vs 2.21	1	0	0	2	2
2.1 vs 2.3	7	0	0	8	15

2.1 vs 2.4	0	1	0	12	15
2.1 vs 2.5	7	3	2	6	15
2.1 vs 2.6.1	8	9	4	11	22
2.1 vs 2.6.2	8	8	3	5	26
2.1 vs 2.6.3	8	2	1	4	5
2.1 vs 2.7	18	9	4	18	48
2.1 vs 2.8	17	10	5	15	17
2.1 vs 2.9	1	0	0	4	2
2.1 vs 3.1	23	8	6	13	25
2.1 vs 3.10	0	3	0	1	5
2.1 vs 3.11	8	5	1	0	17
2.1 vs 3.2	1	5	2	9	17
2.1 vs 3.3	2	1	1	2	3
2.1 vs 3.4	2	0	0	3	65
2.1 vs 3.5	0	3	0	4	8
2.1 vs 3.6	5	7	1	3	33
2.1 vs 3.7	2	1	1	0	2
2.1 vs 3.8	2	0	4	19	28
2.1 vs 3.9	29	6	6	11	25
2.10 vs 2.11	0	0	0	0	1
2.10 vs 2.12	0	0	0	1	4
2.10 vs 2.13	0	0	1	1	7
2.10 vs 2.14	0	0	0	2	5
2.10 vs 2.15	0	0	0	1	2
2.10 vs 2.16	0	0	0	1	0
2.10 vs 2.17	0	0	0	1	1
2.10 vs 2.18	0	0	0	1	0
2.10 vs 3.1	0	0	0	2	2
2.10 vs 3.11	0	0	0	0	3
2.10 vs 3.2	0	0	0	0	3
2.10 vs 3.3	0	0	0	1	0
2.10 vs 3.4	0	0	0	0	8
2.10 vs 3.5	0	0	0	1	0
2.10 vs 3.6	0	0	0	0	5
2.10 vs 3.8	0	0	1	1	2
2.10 vs 3.9	1	0	1	2	2
2.11 vs 2.12	0	0	1	5	3
2.11 vs 2.13	0	0	2	8	6
2.11 vs 2.14	0	0	1	8	3
2.11 vs 2.15	0	0	0	1	4
2.11 vs 2.16	1	0	1	0	4
2.11 vs 2.17	0	1	0	2	3
2.11 vs 2.18	0	0	0	2	1
2.11 vs 2.20	0	0	0	1	1

2.11 vs 2.21	0	0	0	0	1
2.11 vs 3.1	1	0	1	10	8
2.11 vs 3.10	0	1	0	1	1
2.11 vs 3.11	0	0	0	0	3
2.11 vs 3.2	0	0	0	8	3
2.11 vs 3.4	0	0	0	1	13
2.11 vs 3.5	0	0	0	1	1
2.11 vs 3.6	0	0	0	4	7
2.11 vs 3.7	0	0	0	0	1
2.11 vs 3.8	0	0	0	4	7
2.11 vs 3.9	1	0	2	2	3
2.12 vs 2.13	0	0	2	6	9
2.12 vs 2.14	3	0	3	5	8
2.12 vs 2.15	0	0	0	3	4
2.12 vs 2.16	1	0	2	1	4
2.12 vs 2.17	0	1	1	4	2
2.12 vs 2.18	0	0	0	2	2
2.12 vs 2.20	0	0	0	2	0
2.12 vs 2.21	0	0	0	0	1
2.12 vs 3.1	5	1	2	8	7
2.12 vs 3.10	0	0	0	1	0
2.12 vs 3.11	0	0	0	0	2
2.12 vs 3.2	0	0	0	4	3
2.12 vs 3.3	0	0	0	2	0
2.12 vs 3.4	2	0	0	1	12
2.12 vs 3.5	0	0	0	3	1
2.12 vs 3.6	0	0	0	2	9
2.12 vs 3.7	2	1	0	0	0
2.12 vs 3.8	0	0	0	4	3
2.12 vs 3.9	5	0	3	2	6
2.13 vs 2.14	0	2	3	11	15
2.13 vs 2.15	0	1	1	6	16
2.13 vs 2.16	0	2	4	4	7
2.13 vs 2.17	0	2	0	7	4
2.13 vs 2.18	0	0	1	4	1
2.13 vs 2.19	0	0	1	0	0
2.13 vs 2.20	0	0	2	2	2
2.13 vs 2.21	0	0	0	0	2
2.13 vs 3.1	0	2	6	16	19
2.13 vs 3.11	0	1	0	0	13
2.13 vs 3.2	0	2	2	14	16
2.13 vs 3.3	0	1	1	4	1
2.13 vs 3.4	0	0	0	1	42
2.13 vs 3.5	0	1	0	5	7

2.13 vs 3.6	0	1	4	6	18
2.13 vs 3.7	0	0	0	0	1
2.13 vs 3.8	0	0	2	15	20
2.13 vs 3.9	0	3	2	9	12
2.14 vs 2.15	4	1	0	3	4
2.14 vs 2.16	5	7	4	1	4
2.14 vs 2.17	10	3	2	7	4
2.14 vs 2.18	0	0	0	4	1
2.14 vs 2.20	0	0	0	2	0
2.14 vs 2.21	0	0	0	2	1
2.14 vs 3.1	27	4	4	12	9
2.14 vs 3.10	0	0	0	1	0
2.14 vs 3.11	8	4	0	0	4
2.14 vs 3.2	0	2	2	7	5
2.14 vs 3.3	2	1	0	3	0
2.14 vs 3.4	2	0	0	1	21
2.14 vs 3.5	0	3	0	4	4
2.14 vs 3.6	4	7	0	3	12
2.14 vs 3.7	0	0	2	0	0
2.14 vs 3.8	2	0	0	12	5
2.14 vs 3.9	33	2	5	6	10
2.15 vs 2.16	12	14	7	14	32
2.15 vs 2.17	0	0	0	3	3
2.15 vs 2.18	0	0	0	1	0
2.15 vs 2.20	0	0	1	3	1
2.15 vs 2.21	0	0	0	1	1
2.15 vs 3.1	3	1	1	5	14
2.15 vs 3.10	0	0	0	0	1
2.15 vs 3.11	0	1	0	0	6
2.15 vs 3.2	0	1	1	6	7
2.15 vs 3.3	0	0	0	1	0
2.15 vs 3.4	0	0	0	1	19
2.15 vs 3.5	0	0	0	1	4
2.15 vs 3.6	3	2	0	2	8
2.15 vs 3.8	1	0	0	4	12
2.15 vs 3.9	4	1	1	1	6
2.16 vs 2.17	1	5	2	4	5
2.16 vs 2.18	0	0	0	1	2
2.16 vs 2.20	0	0	1	0	2
2.16 vs 2.21	0	0	0	0	1
2.16 vs 3.1	8	5	4	3	7
2.16 vs 3.10	0	3	0	0	5
2.16 vs 3.11	0	2	0	0	2
2.16 vs 3.2	0	1	0	1	5

2.16 vs 3.3	4	0	0	1	2
2.16 vs 3.4	2	0	0	0	17
2.16 vs 3.5	0	4	0	1	2
2.16 vs 3.6	0	7	0	0	7
2.16 vs 3.7	0	1	0	0	1
2.16 vs 3.8	0	0	0	4	4
2.16 vs 3.9	8	2	6	3	8
2.17 vs 2.18	0	0	0	3	1
2.17 vs 2.20	0	0	0	1	1
2.17 vs 2.21	0	0	0	1	0
2.17 vs 3.1	11	5	1	7	6
2.17 vs 3.10	0	2	0	0	3
2.17 vs 3.11	8	1	0	0	2
2.17 vs 3.2	1	3	0	3	1
2.17 vs 3.3	2	3	0	1	0
2.17 vs 3.4	0	0	0	2	14
2.17 vs 3.5	0	4	0	3	4
2.17 vs 3.6	2	2	0	1	6
2.17 vs 3.7	0	1	0	0	0
2.17 vs 3.8	1	0	0	8	1
2.17 vs 3.9	13	1	2	5	5
2.18 vs 3.1	0	0	0	2	2
2.18 vs 3.2	0	0	0	1	1
2.18 vs 3.3	0	0	0	1	0
2.18 vs 3.4	0	0	0	1	2
2.18 vs 3.5	0	0	0	2	0
2.18 vs 3.6	0	0	0	0	2
2.18 vs 3.8	0	0	0	3	0
2.18 vs 3.9	0	0	1	2	1
2.19 vs 2.20	0	0	1	0	0
2.19 vs 3.6	0	0	1	0	0
2.19 vs 3.9	0	0	1	0	0
2.2 vs 2.10	0	0	0	1	1
2.2 vs 2.11	0	0	0	0	3
2.2 vs 2.12	0	0	0	2	3
2.2 vs 2.13	0	0	2	7	12
2.2 vs 2.14	4	1	1	3	2
2.2 vs 2.15	4	2	2	6	14
2.2 vs 2.16	0	1	2	1	3
2.2 vs 2.17	0	0	1	2	2
2.2 vs 2.18	0	0	0	1	0
2.2 vs 2.19	0	0	1	0	0
2.2 vs 2.20	0	0	2	2	1
2.2 vs 2.21	0	0	0	1	0

2.2 vs 2.3	4	1	2	6	10
2.2 vs 2.4	0	0	1	2	2
2.2 vs 2.5	3	0	0	1	2
2.2 vs 2.6.1	0	1	1	4	5
2.2 vs 2.6.2	8	8	3	5	26
2.2 vs 2.6.3	0	0	0	2	1
2.2 vs 2.7	4	0	1	6	9
2.2 vs 2.8	4	1	3	5	4
2.2 vs 2.9	0	0	0	1	0
2.2 vs 3.1	3	1	2	5	13
2.2 vs 3.10	0	0	0	0	1
2.2 vs 3.11	0	1	0	0	3
2.2 vs 3.2	0	0	1	5	4
2.2 vs 3.3	0	0	0	1	0
2.2 vs 3.4	0	0	0	0	15
2.2 vs 3.5	0	0	0	1	2
2.2 vs 3.6	3	2	1	1	5
2.2 vs 3.8	1	0	2	3	10
2.2 vs 3.9	4	0	3	1	5
2.20 vs 2.21	0	0	0	1	0
2.20 vs 3.1	0	0	1	3	1
2.20 vs 3.10	0	0	0	0	1
2.20 vs 3.11	0	0	0	0	1
2.20 vs 3.2	0	0	0	2	0
2.20 vs 3.4	0	0	0	0	3
2.20 vs 3.6	0	0	1	0	0
2.20 vs 3.8	0	0	0	3	2
2.20 vs 3.9	0	0	2	0	1
2.21 vs 3.1	1	0	0	1	1
2.21 vs 3.11	0	0	0	0	2
2.21 vs 3.2	0	0	0	0	1
2.21 vs 3.4	0	0	0	0	2
2.21 vs 3.5	0	0	0	0	1
2.21 vs 3.6	0	0	0	0	2
2.21 vs 3.8	0	0	0	2	0
2.21 vs 3.9	1	0	0	0	2
2.3 vs 2.10	0	0	0	1	3
2.3 vs 2.11	0	0	0	4	7
2.3 vs 2.12	0	0	0	4	4
2.3 vs 2.13	0	0	2	9	11
2.3 vs 2.14	4	0	0	4	4
2.3 vs 2.15	4	1	1	5	11
2.3 vs 2.16	0	0	1	1	6
2.3 vs 2.17	0	0	0	4	4

2.3 vs 2.18	0	0	0	1	0
2.3 vs 2.19	0	0	1	0	0
2.3 vs 2.20	0	0	2	3	1
2.3 vs 2.21	1	0	0	1	1
2.3 vs 2.4	0	0	1	4	4
2.3 vs 2.5	5	0	0	2	6
2.3 vs 2.6.1	0	0	0	5	8
2.3 vs 2.6.2	0	0	0	5	9
2.3 vs 2.6.3	0	0	0	4	4
2.3 vs 2.7	4	0	0	7	13
2.3 vs 2.8	4	0	1	5	1
2.3 vs 2.9	0	0	0	1	0
2.3 vs 3.1	6	0	1	11	14
2.3 vs 3.10	0	0	0	0	1
2.3 vs 3.11	0	0	0	0	6
2.3 vs 3.2	0	0	1	6	5
2.3 vs 3.3	0	0	0	1	0
2.3 vs 3.4	0	0	0	0	18
2.3 vs 3.5	0	0	0	2	4
2.3 vs 3.6	3	1	1	2	8
2.3 vs 3.8	1	0	1	6	12
2.3 vs 3.9	7	0	2	2	7
2.4 vs 2.10	0	0	0	2	3
2.4 vs 2.11	0	0	0	5	2
2.4 vs 2.12	0	0	0	4	3
2.4 vs 2.13	0	1	1	5	11
2.4 vs 2.14	0	0	0	9	4
2.4 vs 2.15	0	1	1	3	4
2.4 vs 2.16	0	0	1	1	1
2.4 vs 2.17	0	1	0	5	0
2.4 vs 2.18	0	0	0	3	0
2.4 vs 2.20	0	0	1	1	0
2.4 vs 2.5	0	1	0	5	2
2.4 vs 2.6.1	0	1	0	5	3
2.4 vs 2.6.2	0	0	0	1	8
2.4 vs 2.6.3	0	0	0	3	1
2.4 vs 2.7	0	1	0	9	15
2.4 vs 2.8	0	0	1	8	3
2.4 vs 2.9	0	0	0	1	0
2.4 vs 3.1	0	0	2	7	8
2.4 vs 3.10	0	0	0	1	0
2.4 vs 3.11	0	0	0	0	5
2.4 vs 3.2	0	1	0	4	5
2.4 vs 3.3	0	1	0	1	1

2.4 vs 3.4	0	0	0	2	19
2.4 vs 3.5	0	1	0	1	1
2.4 vs 3.6	0	0	0	0	10
2.4 vs 3.8	0	0	1	12	14
2.4 vs 3.9	0	1	2	4	4
2.5 vs 2.10	1	0	0	2	3
2.5 vs 2.11	1	0	0	1	5
2.5 vs 2.12	0	1	1	2	4
2.5 vs 2.13	0	2	0	6	8
2.5 vs 2.14	8	2	1	6	8
2.5 vs 2.15	3	1	0	2	5
2.5 vs 2.16	6	0	1	2	4
2.5 vs 2.17	1	4	1	5	6
2.5 vs 2.18	0	0	0	1	1
2.5 vs 2.21	0	0	0	0	1
2.5 vs 2.6.1	0	2	1	3	6
2.5 vs 2.6.2	0	3	1	2	9
2.5 vs 2.6.3	0	2	1	3	2
2.5 vs 2.7	4	4	1	5	9
2.5 vs 2.8	5	3	0	3	2
2.5 vs 2.9	0	0	1	2	0
2.5 vs 3.1	12	5	3	7	9
2.5 vs 3.11	0	3	0	0	5
2.5 vs 3.2	0	4	0	1	6
2.5 vs 3.3	3	1	2	4	0
2.5 vs 3.4	2	0	0	2	17
2.5 vs 3.5	0	0	1	3	2
2.5 vs 3.6	4	1	0	0	9
2.5 vs 3.7	0	1	0	0	0
2.5 vs 3.8	0	0	3	6	7
2.5 vs 3.9	13	2	4	7	6
2.6.1 vs 2.10	0	0	0	1	3
2.6.1 vs 2.11	0	0	0	2	5
2.6.1 vs 2.12	0	0	1	4	3
2.6.1 vs 2.13	0	2	1	10	16
2.6.1 vs 2.14	8	5	3	4	7
2.6.1 vs 2.15	0	1	0	3	6
2.6.1 vs 2.16	0	5	3	4	4
2.6.1 vs 2.17	8	1	2	6	4
2.6.1 vs 2.18	0	0	0	3	0
2.6.1 vs 2.20	0	0	0	2	1
2.6.1 vs 2.6.2	8	6	2	4	17
2.6.1 vs 2.6.3	8	2	1	4	2
2.6.1 vs 2.7	8	5	3	8	21

2.6.1 vs 2.8	8	7	2	5	7
2.6.1 vs 2.9	0	0	0	2	0
2.6.1 vs 3.1	8	6	2	8	9
2.6.1 vs 3.10	0	2	0	0	1
2.6.1 vs 3.11	8	5	1	0	10
2.6.1 vs 3.2	0	4	1	5	8
2.6.1 vs 3.3	0	0	0	1	0
2.6.1 vs 3.4	0	0	0	2	25
2.6.1 vs 3.5	0	1	0	2	3
2.6.1 vs 3.6	0	2	0	0	10
2.6.1 vs 3.7	0	1	0	0	0
2.6.1 vs 3.8	0	0	0	9	11
2.6.1 vs 3.9	8	4	3	3	8
2.6.2 vs 2.10	0	0	0	1	4
2.6.2 vs 2.11	0	0	1	3	4
2.6.2 vs 2.12	0	0	1	4	4
2.6.2 vs 2.13	0	2	1	9	20
2.6.2 vs 2.14	8	6	1	2	8
2.6.2 vs 2.15	0	1	0	4	9
2.6.2 vs 2.16	0	4	2	2	3
2.6.2 vs 2.17	8	1	1	4	4
2.6.2 vs 2.18	0	0	0	1	0
2.6.2 vs 2.20	0	0	0	1	1
2.6.2 vs 2.21	0	0	0	0	2
2.6.2 vs 2.6.3	8	3	1	5	4
2.6.2 vs 2.7	8	4	2	8	25
2.6.2 vs 2.8	8	6	1	5	6
2.6.2 vs 2.9	0	0	0	1	0
2.6.2 vs 3.1	8	6	3	9	11
2.6.2 vs 3.11	8	7	1	0	17
2.6.2 vs 3.2	0	5	0	7	9
2.6.2 vs 3.3	0	0	0	1	0
2.6.2 vs 3.4	0	0	0	0	28
2.6.2 vs 3.5	0	2	0	2	5
2.6.2 vs 3.6	0	5	0	3	14
2.6.2 vs 3.8	0	0	0	0	13
2.6.2 vs 3.9	8	2	2	1	9
2.6.3 vs 2.10	0	0	0	1	1
2.6.3 vs 2.11	0	0	0	2	2
2.6.3 vs 2.12	0	1	0	4	1
2.6.3 vs 2.13	0	1	0	6	3
2.6.3 vs 2.14	8	0	0	3	1
2.6.3 vs 2.15	0	0	0	3	1
2.6.3 vs 2.16	0	0	0	2	1

2.6.3 vs 2.17	8	1	0	5	2
2.6.3 vs 2.18	0	0	0	1	0
2.6.3 vs 2.20	0	0	0	2	0
2.6.3 vs 2.21	0	0	0	0	1
2.6.3 vs 2.7	8	4	1	6	3
2.6.3 vs 2.8	8	2	0	5	1
2.6.3 vs 2.9	0	0	1	1	0
2.6.3 vs 3.1	8	3	2	6	3
2.6.3 vs 3.11	8	2	1	0	1
2.6.3 vs 3.2	0	3	0	5	2
2.6.3 vs 3.3	0	0	1	1	0
2.6.3 vs 3.4	0	0	0	1	6
2.6.3 vs 3.5	0	0	0	2	0
2.6.3 vs 3.6	0	2	0	1	3
2.6.3 vs 3.7	0	1	0	0	0
2.6.3 vs 3.8	0	0	1	2	2
2.6.3 vs 3.9	8	2	1	1	4
2.7 vs 2.10	0	0	0	2	6
2.7 vs 2.11	1	0	0	5	9
2.7 vs 2.12	0	1	1	6	9
2.7 vs 2.13	0	2	0	14	34
2.7 vs 2.14	14	4	4	7	16
2.7 vs 2.15	4	1	0	7	11
2.7 vs 2.16	2	3	2	4	8
2.7 vs 2.17	9	3	2	8	6
2.7 vs 2.18	0	0	0	2	1
2.7 vs 2.20	0	0	0	3	3
2.7 vs 2.21	0	0	0	1	2
2.7 vs 2.8	15	7	3	12	14
2.7 vs 2.9	1	0	0	2	1
2.7 vs 3.1	13	6	3	13	19
2.7 vs 3.10	0	2	0	1	1
2.7 vs 3.11	8	3	1	0	16
2.7 vs 3.2	0	6	1	9	11
2.7 vs 3.3	1	1	0	1	1
2.7 vs 3.4	0	0	0	2	53
2.7 vs 3.5	0	2	0	2	8
2.7 vs 3.6	3	4	0	3	27
2.7 vs 3.7	0	2	1	0	1
2.7 vs 3.8	2	0	0	13	29
2.7 vs 3.9	18	4	2	6	17
2.8 vs 2.10	0	0	1	2	4
2.8 vs 2.11	0	1	1	8	2
2.8 vs 2.12	2	0	0	5	5

2.8 vs 2.13	0	1	4	13	16
2.8 vs 2.14	23	9	4	13	8
2.8 vs 2.15	4	1	2	5	4
2.8 vs 2.16	2	7	4	3	3
2.8 vs 2.17	9	4	1	7	1
2.8 vs 2.18	0	0	0	3	1
2.8 vs 2.20	0	0	1	2	0
2.8 vs 2.21	0	0	0	1	1
2.8 vs 2.9	0	0	0	1	0
2.8 vs 3.1	19	6	3	12	6
2.8 vs 3.10	0	2	0	1	0
2.8 vs 3.11	8	5	0	0	3
2.8 vs 3.2	0	4	2	9	6
2.8 vs 3.3	2	1	0	1	0
2.8 vs 3.4	4	0	0	1	18
2.8 vs 3.5	0	3	0	2	4
2.8 vs 3.6	3	6	0	3	10
2.8 vs 3.7	2	0	1	0	0
2.8 vs 3.8	3	0	1	9	7
2.8 vs 3.9	26	2	5	5	6
2.9 vs 2.10	0	0	0	1	0
2.9 vs 2.11	0	0	0	0	1
2.9 vs 2.12	0	0	0	1	0
2.9 vs 2.13	0	0	1	5	0
2.9 vs 2.14	0	0	0	2	1
2.9 vs 2.15	0	0	0	1	0
2.9 vs 2.16	0	0	0	1	0
2.9 vs 2.17	0	0	0	1	0
2.9 vs 2.18	0	0	1	2	0
2.9 vs 3.1	0	0	1	2	0
2.9 vs 3.3	0	0	1	2	0
2.9 vs 3.4	0	0	0	0	2
2.9 vs 3.5	0	0	0	1	0
2.9 vs 3.6	0	0	0	0	2
2.9 vs 3.7	0	0	0	0	1
2.9 vs 3.8	0	0	1	5	0
2.9 vs 3.9	1	0	4	6	1

Note. Two-cluster comparisons were not listed if the numbers of datasets referenced all equalled zero.

Appendix G: Intra-Coder Reliability: Percentage Agreements & Disagreements & Kappa Coefficients Across Five Datasets

A Kappa coefficient of 1 = complete agreement; 0 = no agreement; and any value between 0 and 1 = partial agreement. The approximate guide for interpreting the value of Kappa that NVivo uses was: below 0.40 = poor agreement; 0.40–0.75 = fair to good agreement; and over 0.75 = excellent agreement (NVivo, n.d.-b). If most of the source was not categorized in both instances, but small sections of the source were categorized differently in both instances, the percentage agreement would be high but the Kappa coefficient would be low since this scenario was highly likely to occur by chance. If most of the source had not been categorized in both instances, but small sections of the source were categorized similarly in both instances, the percentage agreement would be high and the Kappa coefficient would be high since this scenario was highly unlikely to occur by chance (NVivo, n.d.-b).

After two-months passed after the first round of categorizing the 500-pages of data, a sample of 25% of the data classes and clusters were re-categorized. The username initials used in the first round of categorizing was “PT” and was set as “user group B” in NVivo. The username initials in the second round of categorizing was “PT2” and was set as “user group A” in NVivo. The procedures for re-categorizing the sample data in NVivo are detailed in Table D7 in Appendix D. The procedures for calculating the percentage agreements and disagreements and Kappa coefficients in NVivo can be found in Table D7 in Appendix D. According to the two measures, the rate of reliability yielded “excellent agreement” across most data classes and clusters.

In Tables G1-G5, the green columns represent the Agreement Column as the sum of columns “A and B” and “Not A and Not B” from the data categorized or not categorized by the

two user groups: “A” (“PT2”) and “B” (“PT”). The red columns represent the Disagreement Column as the sum of columns “A and Not B” and “B and Not A” from the data categorized or not categorized by the two user groups: “A” (“PT2”) and “B” (“PT”). If the columns “A and B” and “A and Not B” are both 0, then PT2 has not categorized any of the sources. If columns “A and B” and “B and Not A” are both 0, then PT has not categorized any of the sources. Almost all Kappa coefficient values across the five datasets were over 0.75, pointing to a high degree of agreement between both user groups. There were 10 instances where the Kappa coefficients were below 0.75 but above 0.60: the 2017 Order dataset’s 3.6 cluster was at 0.7264; the ECFS Attachment Files dataset’s 1.6.1, 1.7, and 1.8 clusters were at 0.7434, 0.706, and 0.7316; the YouTube Videos dataset’s 1.19, 1.7, 2.3, 2.8, and 2.9 clusters were at 0.7345, 0.6661, 0.6665, 0.7064, and 0.7389; and the Law Documents dataset’s 2.12 cluster was at 0.6192.

The two versions of myself in time as a researcher should have been able to replicate the research procedures to arrive at similar results to confidently say that the data was reproducible and reliable. To achieve a 96.61% of stability, consistency, reproducibility, and reliability when recategorizing 25% of the 500-pages of data meant that there was “excellent agreement” between the younger and older versions (by two months) of myself. Was calculating the intra-coder reliability rates with its Kappa coefficient necessary though? Of course there was going to be “excellent agreement” between my two selves. The mathematical formulas written in Table D7 in Appendix D were easy enough to read based on NVivo’s explanation on its website. The numbers, letters, and Greek symbols were easy to decipher since NVivo’s authors made the attribution to the procedures simple to comprehend and make connections. Yet, I casted doubts on whether what NVivo was telling me was correct with its mathematical formula breakdowns to arrive at the expected frequency by which the agreement between users could have occurred by

chance and the Kappa coefficient calculations. Was this an effective means to achieve the stability, consistency, reproducibility, and reliability of data categorization I sought?

Of the 10 anomalies where the Kappa coefficients were below 0.75 but above 0.60 (i.e., in the “fair to good agreement” range), five were clusters from the net neutrality advocate class, four were from the net neutrality opponent class, and one was from the actors/institutions class. Notably, cluster 1.7 (Creating New Laws) appeared twice, along with cluster 1.8 (Relying on Existing Laws) and cluster 2.8 (Relying on Existing Laws) each appearing once under the law and regulation theme. Clusters 1.19 (Walled Garden), 2.12 (Openness and Transparency), and 3.6 (Tech Industry; Tech Entrepreneurs) each appeared once under the technology theme. The disagreement in the second round of either categorizing new textual passages or failing to categorize textual passages in the same way as the first round of categorizing appeared four times in the law and regulation theme and three times in the technology theme. What was even more interesting was that my ‘second self’ categorized beyond what was categorized for earlier or failed to categorize for the clusters Creating New Laws twice and Relying on Existing Laws twice (one for net neutrality advocates and the other for opponents). This was significant because the textual passages being categorized or not categorized were both similar in nature with one referencing the plotting and possible adoption of new laws and regulations and the other referencing past laws. The clusters’ meanings were closely related. There is no explanation as to why I may have categorized beyond what was categorized for earlier or failed to categorize for these clusters. This pattern may have meant nothing. Suffice it to say that four out of 10 Kappa coefficients were below the 0.75 range of user group agreement, where all four were closely related clusters.

The percentage agreement and Kappa coefficient results for the 2017 Order dataset are produced in Table G1. The results for the ECFS Attachment Files dataset are in Table G2. The results for the YouTube Videos dataset are in Table G3. The results for the Mainstream Media News dataset are in Table G4. The results for the Law Documents dataset are in Table G5.

Table G1

Intra-Coding Reliability Output for the 2017 Order Dataset

Code	Kappa	Agreement (%)	A and B (%)	Not A and Not B (%)	Disagreement (%)	A and Not B (%)	B and Not A (%)
(1) Advocates	1	100	0	100	0	0	0
(1) Advocates\ (1.1) State Gov Oversight	0.7888	99.98	0.01	99.97	0.02	0.02	0
(1) Advocates\ (1.10) Digital Divide	1	100	0.02	99.98	0	0	0
(1) Advocates\ (1.11) Explaining with Metaphors or Similes	1	100	0.07	99.93	0	0	0
(1) Advocates\ (1.12) Openness and Transparency	0.8915	99.97	0.05	99.92	0.03	0.01	0.02
(1) Advocates\ (1.13) Current Legal Proceedings	1	100	0	100	0	0	0
(1) Advocates\ (1.14) TITLE I and II	1	100	0	100	0	0	0
(1) Advocates\ (1.15) Throttling	1	100	0	100	0	0	0
(1) Advocates\ (1.16) FTC	1	100	0	100	0	0	0
(1) Advocates\ (1.17) Market Competition	1	100	0.05	99.95	0	0	0
(1) Advocates\ (1.18) Free Speech	1	100	0	100	0	0	0
(1) Advocates\ (1.19) Walled-Garden	1	100	0	100	0	0	0
(1) Advocates\ (1.2) Blocking	1	100	0.02	99.98	0	0	0
(1) Advocates\ (1.20) Discrimination	1	100	0	100	0	0	0
(1) Advocates\ (1.21) 5G	1	100	0	100	0	0	0
(1) Advocates\ (1.3) Paid Prioritization	1	100	0	100	0	0	0
(1) Advocates\ (1.4) Attacking Political Parties	1	100	0	100	0	0	0
(1) Advocates\ (1.5) Fin or Infra Investments	1	100	0.08	99.92	0	0	0
(1) Advocates\ (1.6) Jurisdiction	1	100	0	100	0	0	0
(1) Advocates\ (1.6) Jurisdiction\ (1.6.1) Federal	1	100	0	100	0	0	0
(1) Advocates\ (1.6) Jurisdiction\ (1.6.2) State	1	100	0	100	0	0	0
(1) Advocates\ (1.6) Jurisdiction\ (1.6.3) Municipal; County	1	100	0	100	0	0	0
(1) Advocates\ (1.7) Creating New Laws	1	100	0	100	0	0	0
(1) Advocates\ (1.8) Relying on Existing Laws	1	100	0.03	99.97	0	0	0
(1) Advocates\ (1.9) FCC's ECFS	1	100	0	100	0	0	0
(2) Opponents	1	100	0	100	0	0	0
(2) Opponents\ (2.1) State Gov Oversight	0.9893	99.97	0.59	99.38	0.03	0.03	0
(2) Opponents\ (2.10) Digital Divide	1	100	0.01	99.99	0	0	0
(2) Opponents\ (2.11) Explaining with Metaphors or Similes	1	100	0.01	99.99	0	0	0
(2) Opponents\ (2.12) Openness and Transparency	1	100	0.13	99.87	0	0	0
(2) Opponents\ (2.13) Current Legal Proceedings	1	100	0	100	0	0	0
(2) Opponents\ (2.14) TITLE I and II	0.9907	99.98	0.61	99.37	0.02	0	0.02
(2) Opponents\ (2.15) Throttling	1	100	0.11	99.89	0	0	0
(2) Opponents\ (2.16) FTC	0.9263	99.97	0.09	99.87	0.03	0	0.03
(2) Opponents\ (2.17) Market Competition	0.9736	99.97	0.25	99.72	0.03	0	0.03
(2) Opponents\ (2.18) Free Speech	1	100	0	100	0	0	0
(2) Opponents\ (2.19) Walled-Garden	1	100	0	100	0	0	0
(2) Opponents\ (2.2) Blocking	0.9303	99.96	0.11	99.86	0.04	0.04	0
(2) Opponents\ (2.20) Discrimination	1	100	0	100	0	0	0
(2) Opponents\ (2.21) 5G	0.9907	100	0.01	99.99	0	0	0
(2) Opponents\ (2.3) Paid Prioritization	1	100	0.15	99.85	0	0	0
(2) Opponents\ (2.4) Attacking Political Parties	1	100	0	100	0	0	0
(2) Opponents\ (2.5) Fin or Infra Investments	1	100	0.23	99.77	0	0	0
(2) Opponents\ (2.6) Jurisdiction	1	100	0	100	0	0	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.1) Federal	0.9981	100	0.18	99.81	0	0	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.2) State	0.9981	100	0.18	99.81	0	0	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.3) Municipal; County	0.9981	100	0.18	99.81	0	0	0
(2) Opponents\ (2.7) Creating New Laws	0.9845	99.98	0.35	99.62	0.02	0	0.02
(2) Opponents\ (2.8) Relying on Existing Laws	0.9732	99.95	0.47	99.48	0.05	0.03	0.02
(2) Opponents\ (2.9) FCC's ECFS	1	100	0.01	99.99	0	0	0
(3) Actors & Institutions	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.1) BIAS; Telecomms; ISPs	0.9926	99.98	0.77	99.21	0.02	0.02	0
(3) Actors & Institutions\ (3.10) FTC Members	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.11) State Bills	0.9981	100	0.18	99.81	0	0	0
(3) Actors & Institutions\ (3.2) Lawyers; Legal Pundants	1	100	0.01	99.99	0	0	0
(3) Actors & Institutions\ (3.3) Economists	0.8684	99.96	0.06	99.9	0.04	0	0.04
(3) Actors & Institutions\ (3.4) Investigative or News Journalists	1	100	0.07	99.93	0	0	0
(3) Actors & Institutions\ (3.5) Academics; Scholars	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.6) Tech Industry Leaders; Tech Entrepreneurs	0.7264	99.91	0.04	99.88	0.09	0	0.09
(3) Actors & Institutions\ (3.7) Popular Commentators	0.9993	100	0.04	99.96	0	0	0
(3) Actors & Institutions\ (3.8) Politicians	0.9997	100	0.06	99.94	0	0	0
(3) Actors & Institutions\ (3.9) FCC Members	0.9996	100	0.92	99.08	0	0	0

Table G2

Intra-Coding Reliability Output for the FCC's ECFS Attachment Files Dataset

Code	Kappa	Agreement (%)	A and B (%)	Not A and Not B (%)	Disagreement (%)	A and Not B (%)	B and Not A (%)
(1) Advocates	1	100	0	100	0	0	0
(1) Advocates\1.1 State Gov Oversight	0.8983	94.93	43.76	51.17	5.07	5.07	0
(1) Advocates\1.10 Digital Divide	0.9992	100	2.83	97.16	0	0	0
(1) Advocates\1.11 Explaining with Metaphors or Similes	1	100	5.05	94.95	0	0	0
(1) Advocates\1.12 Openness and Transparency	1	100	0	100	0	0	0
(1) Advocates\1.13 Current Legal Proceedings	0.9994	99.98	19.12	80.86	0.02	0.02	0
(1) Advocates\1.14 TITLE I and II	1	100	28.2	71.8	0	0	0
(1) Advocates\1.15 Throttling	0.999	99.99	4.71	95.28	0.01	0.01	0
(1) Advocates\1.16 FTC	0.7931	95.28	10.69	84.59	4.72	0.01	4.71
(1) Advocates\1.17 Market Competition	0.8894	95.28	28.36	66.91	4.72	0.01	4.71
(1) Advocates\1.18 Free Speech	1	100	8.31	91.69	0	0	0
(1) Advocates\1.19 Walled-Garden	1	100	0	100	0	0	0
(1) Advocates\1.2 Blocking	0.999	99.99	4.71	95.28	0.01	0.01	0
(1) Advocates\1.20 Discrimination	0.9992	99.99	6.11	93.88	0.01	0.01	0
(1) Advocates\1.21 5G	1	100	0	100	0	0	0
(1) Advocates\1.3 Paid Prioritization	0.999	99.99	4.71	95.28	0.01	0.01	0
(1) Advocates\1.4 Attacking Political Parties	1	100	8.31	91.69	0	0	0
(1) Advocates\1.5 Fin or Infra Investments	0.9998	100	11.14	88.86	0	0	0
(1) Advocates\1.6 Jurisdiction	1	100	0	100	0	0	0
(1) Advocates\1.6 Jurisdiction\1.6.1 Federal	0.7434	91.68	15.9	75.78	8.32	0.01	8.31
(1) Advocates\1.6 Jurisdiction\1.6.2 State	0.9994	99.99	8.77	91.22	0.01	0	0.01
(1) Advocates\1.6 Jurisdiction\1.6.3 Municipal; County	1	100	5.05	94.95	0	0	0
(1) Advocates\1.7 Creating New Laws	0.706	91.69	12.63	79.06	8.31	8.31	0
(1) Advocates\1.8 Relying on Existing Laws	0.7316	88.84	23.15	65.69	11.16	0	11.16
(1) Advocates\1.9 FCC's ECFS	1	100	0	100	0	0	0
(2) Opponents	1	100	0	100	0	0	0
(2) Opponents\2.1 State Gov Oversight	0.9998	99.99	32.41	67.58	0.01	0.01	0
(2) Opponents\2.10 Digital Divide	1	100	0	100	0	0	0
(2) Opponents\2.11 Explaining with Metaphors or Similes	1	100	6.78	93.22	0	0	0
(2) Opponents\2.12 Openness and Transparency	0.9976	99.99	2	97.99	0.01	0	0.01
(2) Opponents\2.13 Current Legal Proceedings	1	100	8.41	91.59	0	0	0
(2) Opponents\2.14 TITLE I and II	1	100	5.66	94.34	0	0	0
(2) Opponents\2.15 Throttling	0.9983	99.99	2.88	97.11	0.01	0	0.01
(2) Opponents\2.16 FTC	0.8248	93.21	22.66	70.56	6.79	6.79	0
(2) Opponents\2.17 Market Competition	0.9993	99.97	30.15	69.82	0.03	0.02	0.01
(2) Opponents\2.18 Free Speech	1	100	0	100	0	0	0
(2) Opponents\2.19 Walled-Garden	1	100	0	100	0	0	0
(2) Opponents\2.2 Blocking	1	100	0	100	0	0	0
(2) Opponents\2.20 Discrimination	1	100	0	100	0	0	0
(2) Opponents\2.21 5G	1	100	0	100	0	0	0
(2) Opponents\2.3 Paid Prioritization	1	100	0	100	0	0	0
(2) Opponents\2.4 Attacking Political Parties	0.9994	99.99	7.95	92.04	0.01	0.01	0
(2) Opponents\2.5 Fin or Infra Investments	0.998	99.98	4.88	95.1	0.02	0	0.02
(2) Opponents\2.6 Jurisdiction	1	100	0	100	0	0	0
(2) Opponents\2.6 Jurisdiction\2.6.1 Federal	0.8282	94.33	17.89	76.44	5.67	5.67	0
(2) Opponents\2.6 Jurisdiction\2.6.2 State	1	100	0	100	0	0	0
(2) Opponents\2.6 Jurisdiction\2.6.3 Municipal; County	0.9979	99.98	4.53	95.45	0.02	0	0.02
(2) Opponents\2.7 Creating New Laws	0.9995	99.98	25.32	74.66	0.02	0.01	0.01
(2) Opponents\2.8 Relying on Existing Laws	0.9333	97.91	18.33	79.58	2.09	2.09	0
(2) Opponents\2.9 FCC's ECFS	1	100	0	100	0	0	0
(3) Actors & Institutions	1	100	0	100	0	0	0
(3) Actors & Institutions\3.1 BIAS; Telecomms; ISPs	0.7987	91.11	27.89	63.23	8.89	8.87	0.02
(3) Actors & Institutions\3.10 FTC Members	0.9995	99.98	23.76	76.22	0.02	0.01	0.01
(3) Actors & Institutions\3.11 State Bills	1	100	8.77	91.23	0	0	0
(3) Actors & Institutions\3.2 Lawyers; Legal Pundants	0.8105	91.11	32.38	58.73	8.89	8.88	0.01
(3) Actors & Institutions\3.3 Economists	0.9977	99.99	2.09	97.91	0.01	0.01	0
(3) Actors & Institutions\3.4 Investigative or News Journalists	1	100	0	100	0	0	0
(3) Actors & Institutions\3.5 Academics; Scholars	0.9996	99.98	33.53	66.45	0.02	0.02	0
(3) Actors & Institutions\3.6 Tech Industry Leaders; Tech Entrepreneurs	0.7712	89.18	31.79	57.38	10.82	0.01	10.82
(3) Actors & Institutions\3.7 Popular Commentators	1	100	5.36	94.64	0	0	0
(3) Actors & Institutions\3.8 Politicians	1	100	8.31	91.69	0	0	0
(3) Actors & Institutions\3.9 FCC Members	1	100	11.77	88.23	0	0	0

Table G3

Intra-Coding Reliability Output for the YouTube Videos Dataset

Code	Kappa	Agreement (%)	A and B (%)	Not A and Not B (%)	Disagreement (%)	A and Not B (%)	B and Not A (%)
(1) Advocates	1	100	0	100	0	0	0
(1) Advocates\ (1.1) State Gov Oversight	0.9774	99.53	11.65	87.87	0.47	0.47	0
(1) Advocates\ (1.10) Digital Divide	0.9373	98.99	8.28	90.71	1.01	1.01	0
(1) Advocates\ (1.11) Explaining with Metaphors or Similes	0.9876	99.87	5.42	94.45	0.13	0.13	0
(1) Advocates\ (1.12) Openness and Transparency	0.989	99.81	9.31	90.5	0.19	0.19	0
(1) Advocates\ (1.13) Current Legal Proceedings	0.9835	99.84	4.97	94.87	0.16	0.16	0
(1) Advocates\ (1.14) TITLE I and II	1	100	0	100	0	0	0
(1) Advocates\ (1.15) Throttling	1	100	0	100	0	0	0
(1) Advocates\ (1.16) FTC	0.807	96.9	7.22	89.69	3.1	3.1	0
(1) Advocates\ (1.17) Market Competition	0.8402	99.27	1.97	97.3	0.73	0.73	0
(1) Advocates\ (1.18) Free Speech	0.8741	99.6	1.43	98.17	0.4	0.4	0
(1) Advocates\ (1.19) Walled-Garden	0.7345	99.07	1.31	97.76	0.93	0.93	0
(1) Advocates\ (1.2) Blocking	1	100	0	100	0	0	0
(1) Advocates\ (1.20) Discrimination	0.9873	99.85	6.12	93.73	0.15	0.15	0
(1) Advocates\ (1.21) 5G	1	100	0	100	0	0	0
(1) Advocates\ (1.3) Paid Prioritization	0.9836	99.73	8.79	90.95	0.27	0.27	0
(1) Advocates\ (1.4) Attacking Political Parties	1	100	0	100	0	0	0
(1) Advocates\ (1.5) Fin or Infra Investments	0.9777	99.88	2.66	97.22	0.12	0.12	0
(1) Advocates\ (1.6) Jurisdiction	1	100	0	100	0	0	0
(1) Advocates\ (1.6) Jurisdiction\ (1.6.1) Federal	0.971	99.37	12.12	87.25	0.63	0.63	0
(1) Advocates\ (1.6) Jurisdiction\ (1.6.2) State	0.9794	99.35	19.3	80.05	0.65	0.63	0.02
(1) Advocates\ (1.6) Jurisdiction\ (1.6.3) Municipal; County	0.9735	99.59	8.35	91.23	0.41	0.41	0
(1) Advocates\ (1.7) Creating New Laws	0.6661	92.57	8.9	83.66	7.43	0.48	6.95
(1) Advocates\ (1.8) Relying on Existing Laws	0.9798	99.72	7.26	92.47	0.28	0.28	0
(1) Advocates\ (1.9) FCC's ECFS	0.9987	99.98	8.58	91.4	0.02	0	0.02
(2) Opponents	1	100	0	100	0	0	0
(2) Opponents\ (2.1) State Gov Oversight	0.9758	99.11	23.72	75.39	0.89	0.89	0
(2) Opponents\ (2.10) Digital Divide	0.8022	99.4	1.24	98.16	0.6	0.59	0.01
(2) Opponents\ (2.11) Explaining with Metaphors or Similes	1	100	0	100	0	0	0
(2) Opponents\ (2.12) Openness and Transparency	1	100	15.38	84.62	0	0	0
(2) Opponents\ (2.13) Current Legal Proceedings	1	100	0	100	0	0	0
(2) Opponents\ (2.14) TITLE I and II	0.9952	99.83	22.77	77.07	0.17	0.17	0
(2) Opponents\ (2.15) Throttling	1	100	0	100	0	0	0
(2) Opponents\ (2.16) FTC	0.9952	99.83	22.77	77.07	0.17	0.17	0
(2) Opponents\ (2.17) Market Competition	0.9952	99.83	22.77	77.07	0.17	0.17	0
(2) Opponents\ (2.18) Free Speech	1	100	0	100	0	0	0
(2) Opponents\ (2.19) Walled-Garden	1	100	0	100	0	0	0
(2) Opponents\ (2.2) Blocking	0.9179	98.67	8.23	90.44	1.33	1.33	0
(2) Opponents\ (2.20) Discrimination	1	100	0	100	0	0	0
(2) Opponents\ (2.21) 5G	1	100	0	100	0	0	0
(2) Opponents\ (2.3) Paid Prioritization	0.6665	99	1.02	97.99	1	1	0
(2) Opponents\ (2.4) Attacking Political Parties	0.93	99.86	0.93	98.94	0.14	0.14	0
(2) Opponents\ (2.5) Fin or Infra Investments	0.9594	98.54	22.73	75.81	1.46	1.46	0
(2) Opponents\ (2.6) Jurisdiction	1	100	0	100	0	0	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.1) Federal	0.9952	99.83	22.77	77.07	0.17	0.17	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.2) State	1	100	15.38	84.62	0	0	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.3) Municipal; County	1	100	0	100	0	0	0
(2) Opponents\ (2.7) Creating New Laws	0.9952	99.83	22.77	77.07	0.17	0.17	0
(2) Opponents\ (2.8) Relying on Existing Laws	0.7064	93.57	9.16	84.41	6.43	6.43	0
(2) Opponents\ (2.9) FCC's ECFS	0.7389	96.83	4.87	91.96	3.17	3.17	0
(3) Actors & Institutions	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.1) BIAS; Telecomms; ISPs	0.9741	99	25.44	73.57	1	1	0
(3) Actors & Institutions\ (3.10) FTC Members	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.11) State Bills	0.9977	99.94	15.27	84.67	0.06	0	0.06
(3) Actors & Institutions\ (3.2) Lawyers; Legal Pundants	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.3) Economists	0.7529	99.62	0.59	99.02	0.38	0.38	0
(3) Actors & Institutions\ (3.4) Investigative or News Journalists	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.5) Academics; Scholars	0.9391	99.26	6.12	93.14	0.74	0.15	0.59
(3) Actors & Institutions\ (3.6) Tech Industry Leaders; Tech Entrepreneurs	0.9834	99.71	9.35	90.37	0.29	0.29	0
(3) Actors & Institutions\ (3.7) Popular Commentators	0.9709	99.63	6.72	92.9	0.37	0	0.37
(3) Actors & Institutions\ (3.8) Politicians	0.9577	98.53	21.66	76.87	1.47	1.08	0.38
(3) Actors & Institutions\ (3.9) FCC Members	0.966	98.3	52.08	46.22	1.7	1.7	0

Table G4

Intra-Coding Reliability Output for the Mainstream Media News Dataset

Code	Kappa	Agreement (%)	A and B (%)	Not A and Not B (%)	Disagreement (%)	A and Not B (%)	B and Not A (%)
(1) Advocates	1	100	0	100	0	0	0
(1) Advocates\ (1.1) State Gov Oversight	0.7571	87.77	47.97	39.8	12.23	12	0.24
(1) Advocates\ (1.10) Digital Divide	0.9998	99.99	21.1	78.89	0.01	0	0
(1) Advocates\ (1.11) Explaining with Metaphors or Similes	0.8696	95.99	16.94	79.05	4.01	0.48	3.53
(1) Advocates\ (1.12) Openness and Transparency	0.9532	98.11	27.07	71.04	1.89	0	1.89
(1) Advocates\ (1.13) Current Legal Proceedings	0.9609	98.09	56.8	41.29	1.91	1.9	0.01
(1) Advocates\ (1.14) TITLE I and II	0.9711	98.81	28.31	70.5	1.19	0	1.19
(1) Advocates\ (1.15) Throttling	0.945	97.32	40.72	56.6	2.68	0	2.68
(1) Advocates\ (1.16) FTC	1	100	21.88	78.12	0	0	0
(1) Advocates\ (1.17) Market Competition	0.9103	99.32	3.62	95.69	0.68	0	0.68
(1) Advocates\ (1.18) Free Speech	0.9542	98.92	13.03	85.89	1.08	1.08	0
(1) Advocates\ (1.19) Walled-Garden	1	100	11.99	88.01	0	0	0
(1) Advocates\ (1.2) Blocking	0.9782	98.95	39.81	59.14	1.05	0	1.05
(1) Advocates\ (1.20) Discrimination	0.9999	100	13.09	86.91	0	0	0
(1) Advocates\ (1.21) 5G	1	100	0	100	0	0	0
(1) Advocates\ (1.3) Paid Prioritization	0.9277	96.57	37.01	59.55	3.43	0	3.43
(1) Advocates\ (1.4) Attacking Political Parties	0.9997	100	2.42	97.58	0	0	0
(1) Advocates\ (1.5) Fin or Infra Investments	0.9998	99.99	31.35	68.64	0.01	0.01	0
(1) Advocates\ (1.6) Jurisdiction	1	100	0	100	0	0	0
(1) Advocates\ (1.6) Jurisdiction\ (1.6.1) Federal	0.9494	97.76	31.94	65.82	2.24	0	2.24
(1) Advocates\ (1.6) Jurisdiction\ (1.6.2) State	0.9998	99.99	45.58	54.41	0.01	0	0.01
(1) Advocates\ (1.6) Jurisdiction\ (1.6.3) Municipal; County	0.8631	98.68	4.41	94.27	1.32	0	1.32
(1) Advocates\ (1.7) Creating New Laws	0.9861	99.31	48.31	50.99	0.69	0.31	0.69
(1) Advocates\ (1.8) Relying on Existing Laws	0.9475	98.23	20.62	77.6	1.77	0.34	1.43
(1) Advocates\ (1.9) FCC's ECFS	0.9999	100	12.2	87.8	0	0	0
(2) Opponents	1	100	0	100	0	0	0
(2) Opponents\ (2.1) State Gov Oversight	0.9771	99.44	13.93	85.52	0.56	0.44	0.56
(2) Opponents\ (2.10) Digital Divide	1	100	3.12	96.88	0	0	0
(2) Opponents\ (2.11) Explaining with Metaphors or Similes	1	100	7.19	92.81	0	0	0
(2) Opponents\ (2.12) Openness and Transparency	1	100	7.58	92.42	0	0	0
(2) Opponents\ (2.13) Current Legal Proceedings	0.9999	100	16.94	83.06	0	0	0
(2) Opponents\ (2.14) TITLE I and II	0.9301	99.06	6.77	92.29	0.94	0	0.94
(2) Opponents\ (2.15) Throttling	0.9999	100	13.9	86.1	0	0	0
(2) Opponents\ (2.16) FTC	1	100	6.83	93.17	0	0	0
(2) Opponents\ (2.17) Market Competition	1	100	1.71	98.29	0	0	0
(2) Opponents\ (2.18) Free Speech	1	100	0	100	0	0	0
(2) Opponents\ (2.19) Walled-Garden	1	100	0	100	0	0	0
(2) Opponents\ (2.2) Blocking	0.9998	100	9.43	90.56	0	0	0
(2) Opponents\ (2.20) Discrimination	1	100	0	100	0	0	0
(2) Opponents\ (2.21) 5G	1	100	4.46	95.54	0	0	0
(2) Opponents\ (2.3) Paid Prioritization	0.9999	100	13.9	86.1	0	0	0
(2) Opponents\ (2.4) Attacking Political Parties	0.9997	100	6.03	93.97	0	0	0
(2) Opponents\ (2.5) Fin or Infra Investments	1	100	4.46	95.54	0	0	0
(2) Opponents\ (2.6) Jurisdiction	1	100	0	100	0	0	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.1) Federal	0.9998	100	4.41	95.59	0	0	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.2) State	0.7934	96.88	6.63	90.25	3.12	0	3.12
(2) Opponents\ (2.6) Jurisdiction\ (2.6.3) Municipal; County	1	100	0.56	99.44	0	0	0
(2) Opponents\ (2.7) Creating New Laws	0.9999	100	18.52	81.48	0	0	0
(2) Opponents\ (2.8) Relying on Existing Laws	1	100	1.43	98.57	0	0	0
(2) Opponents\ (2.9) FCC's ECFS	1	100	0	100	0	0	0
(3) Actors & Institutions	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.1) BIAS; Telecomms; ISPs	0.9697	98.55	59.92	38.63	1.45	1.44	0
(3) Actors & Institutions\ (3.10) FTC Members	0.9999	100	6.72	93.28	0	0	0
(3) Actors & Institutions\ (3.11) State Bills	0.9315	97.32	25.36	71.95	2.68	0	2.68
(3) Actors & Institutions\ (3.2) Lawyers; Legal Pundants	0.9448	97.33	39.48	57.85	2.67	1.78	0.89
(3) Actors & Institutions\ (3.3) Economists	1	100	5.34	94.66	0	0	0
(3) Actors & Institutions\ (3.4) Investigative or News Journalists	0.9979	99.98	94.71	5.27	0.02	0.01	0.01
(3) Actors & Institutions\ (3.5) Academics; Scholars	0.8787	95.53	22.01	73.52	4.47	0	4.47
(3) Actors & Institutions\ (3.6) Tech Industry Leaders; Tech Entrepreneurs	0.9026	95.14	45.36	49.78	4.86	1.45	3.42
(3) Actors & Institutions\ (3.7) Popular Commentators	1	100	5.34	94.66	0	0	0
(3) Actors & Institutions\ (3.8) Politicians	0.9467	97.57	63.65	33.92	2.43	1	1.44
(3) Actors & Institutions\ (3.9) FCC Members	0.7565	88	35.5	52.5	12	12	0

Table G5

Intra-Coding Reliability Output for the Law Documents Dataset

Code	Kappa	Agreement (%)	A and B (%)	Not A and Not B (%)	Disagreement (%)	A and Not B (%)	B and Not A (%)
(1) Advocates	1	100	0	100	0	0	0
(1) Advocates\ (1.1) State Gov Oversight	0.84	94.28	20.47	73.81	5.72	3.5	2.23
(1) Advocates\ (1.10) Digital Divide	0.9991	100	2.79	97.2	0	0	0
(1) Advocates\ (1.11) Explaining with Metaphors or Similes	0.9999	100	18.78	81.22	0	0	0
(1) Advocates\ (1.12) Openness and Transparency	0.9991	99.96	36.39	63.56	0.04	0	0.04
(1) Advocates\ (1.13) Current Legal Proceedings	0.9889	99.5	33.84	65.66	0.5	0.5	0
(1) Advocates\ (1.14) TITLE I and II	0.9999	100	11.8	88.19	0	0	0
(1) Advocates\ (1.15) Throttling	0.999	99.96	26.12	73.84	0.04	0	0.04
(1) Advocates\ (1.16) FTC	0.928	99.73	1.8	97.93	0.27	0	0.27
(1) Advocates\ (1.17) Market Competition	0.9327	98.17	15.3	82.87	1.83	0	1.82
(1) Advocates\ (1.18) Free Speech	0.9999	100	11.5	88.5	0	0	0
(1) Advocates\ (1.19) Walled-Garden	1	100	0	100	0	0	0
(1) Advocates\ (1.2) Blocking	0.9988	99.96	21.13	78.83	0.04	0	0.04
(1) Advocates\ (1.20) Discrimination	0.9224	98.78	8	90.78	1.22	0	1.22
(1) Advocates\ (1.21) 5G	1	100	0	100	0	0	0
(1) Advocates\ (1.3) Paid Prioritization	0.999	99.96	26.12	73.84	0.04	0	0.04
(1) Advocates\ (1.4) Attacking Political Parties	0.9471	99.03	9.77	89.26	0.97	0	0.97
(1) Advocates\ (1.5) Fin or Infra Investments	0.9989	99.99	3.33	96.67	0.01	0.01	0
(1) Advocates\ (1.6) Jurisdiction	1	100	0	100	0	0	0
(1) Advocates\ (1.6) Jurisdiction\ (1.6.1) Federal	0.9989	99.96	22.99	76.97	0.04	0	0.04
(1) Advocates\ (1.6) Jurisdiction\ (1.6.2) State	0.9981	99.96	11.61	88.36	0.04	0	0.04
(1) Advocates\ (1.6) Jurisdiction\ (1.6.3) Municipal; County	0.9978	99.95	11.64	88.32	0.05	0	0.04
(1) Advocates\ (1.7) Creating New Laws	0.9857	99.33	37	62.33	0.67	0	0.67
(1) Advocates\ (1.8) Relying on Existing Laws	0.9999	100	24.29	75.71	0	0	0
(1) Advocates\ (1.9) FCC's ECFS	0.9999	100	21.84	78.15	0	0	0
(2) Opponents	1	100	0	100	0	0	0
(2) Opponents\ (2.1) State Gov Oversight	0.9974	99.89	28.32	71.57	0.11	0.1	0
(2) Opponents\ (2.10) Digital Divide	0.9935	99.9	8.39	91.51	0.1	0.1	0
(2) Opponents\ (2.11) Explaining with Metaphors or Similes	0.9506	98.89	12.31	86.58	1.11	0	1.1
(2) Opponents\ (2.12) Openness and Transparency	0.6192	90.5	9.54	80.96	9.5	0	9.5
(2) Opponents\ (2.13) Current Legal Proceedings	0.9967	99.9	19.48	80.42	0.1	0.1	0
(2) Opponents\ (2.14) TITLE I and II	0.9972	99.9	24.23	75.67	0.1	0.1	0
(2) Opponents\ (2.15) Throttling	0.9951	99.9	11.71	88.19	0.1	0.1	0
(2) Opponents\ (2.16) FTC	0.9939	99.9	9.19	90.71	0.1	0.1	0
(2) Opponents\ (2.17) Market Competition	0.9438	98.49	15.21	83.29	1.51	0.1	1.41
(2) Opponents\ (2.18) Free Speech	0.9957	99.9	13.38	86.52	0.1	0.1	0
(2) Opponents\ (2.19) Walled-Garden	1	100	0	100	0	0	0
(2) Opponents\ (2.2) Blocking	0.9947	99.9	10.61	89.29	0.1	0.1	0
(2) Opponents\ (2.20) Discrimination	1	100	2.22	97.78	0	0	0
(2) Opponents\ (2.21) 5G	1	100	3.24	96.76	0	0	0
(2) Opponents\ (2.3) Paid Prioritization	0.9953	99.9	12.41	87.49	0.1	0.1	0
(2) Opponents\ (2.4) Attacking Political Parties	0.9086	97.03	18.89	78.14	2.97	2.32	0.64
(2) Opponents\ (2.5) Fin or Infra Investments	0.9957	99.9	14.32	85.58	0.1	0.1	0
(2) Opponents\ (2.6) Jurisdiction	1	100	0	100	0	0	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.1) Federal	0.9674	99.1	16.08	83.01	0.9	0.1	0.8
(2) Opponents\ (2.6) Jurisdiction\ (2.6.2) State	0.9958	99.9	14.26	85.64	0.1	0.1	0
(2) Opponents\ (2.6) Jurisdiction\ (2.6.3) Municipal; County	0.9953	99.9	11.98	87.92	0.1	0.1	0
(2) Opponents\ (2.7) Creating New Laws	0.9317	97.71	20.15	77.56	2.29	2.28	0.01
(2) Opponents\ (2.8) Relying on Existing Laws	0.9069	96.83	20.15	76.68	3.17	0.1	3.07
(2) Opponents\ (2.9) FCC's ECFS	0.9521	99.01	11.15	87.86	0.99	0.98	0
(3) Actors & Institutions	1	100	0	100	0	0	0
(3) Actors & Institutions\ (3.1) BIAS; Telecomms; ISPs	0.9991	99.96	66.91	33.05	0.04	0.02	0.02
(3) Actors & Institutions\ (3.10) FTC Members	1	100	4.47	95.53	0	0	0
(3) Actors & Institutions\ (3.11) State Bills	0.9829	99.68	10.13	89.56	0.32	0	0.32
(3) Actors & Institutions\ (3.2) Lawyers; Legal Pundants	0.9997	99.99	42.43	57.56	0.01	0.01	0
(3) Actors & Institutions\ (3.3) Economists	0.971	99.38	11.86	87.52	0.62	0.62	0
(3) Actors & Institutions\ (3.4) Investigative or News Journalists	0.9999	100	24.17	75.82	0	0	0
(3) Actors & Institutions\ (3.5) Academics; Scholars	0.917	95.94	40.18	55.77	4.06	4.05	0
(3) Actors & Institutions\ (3.6) Tech Industry Leaders; Tech Entrepreneurs	0.8855	95.4	25.5	69.9	4.6	3.42	1.18
(3) Actors & Institutions\ (3.7) Popular Commentators	0.9654	99.29	11.23	88.06	0.71	0.71	0
(3) Actors & Institutions\ (3.8) Politicians	0.9778	98.95	38.23	60.72	1.05	1.05	0
(3) Actors & Institutions\ (3.9) FCC Members	0.9976	99.89	34.83	65.06	0.11	0.1	0

Appendix H: Chapters 3-6 Summary Tables

Table H1

Chapter 3 Summary Table

Issue	Net Neutrality Advocates	Net Neutrality Opponents
Defending the role of the market economy.	Less competition and innovation could come from ISPs being gatekeepers of ideas. Businesses who cannot afford expensive connectivity deals may suffer unreliable connectivity, poor user-experience, or no connectivity at all. Repealing net neutrality may stifle competition and put corporate interests ahead of innovators, small businesses, and users. Title II regulation would provide more connections to low-income communities by subsidizing costs. Net neutrality was the conscience in capitalism that deterred corporate takeovers of businesses and users. Capitalism should promote fairness and openness. The FCC should adjudicate complaints case-by-case to see if ISPs followed an Internet reasonable conduct standard. The FCC should provide regulatory guidance to the market. The FCC should adapt to marketplace changes and proscribe specific behaviour that violates openness. ----- Platforms could leverage user data to limit competition, calling into question antitrust violations. Market concentration anxiety was nothing new. Monopolies could dispossess other entry-level businesses and quality of service for users.	The 2017 Order would roll back the 2015 Order's power grab from the Obama administration to protect the open Internet and generate wealth and jobs. Obama's FCC rulemaking was ideological and lacked analytical, technical, and empirical heft. Some nations required one economist to serve on a communications regulator team; the FCC should follow suit. ----- Companies that could become monopolies were only worth investing in; monopolies grow in scale by dominating market shares. Entry-level ISPs were trying just as hard as larger ISPs to gain market shares.
Antitrust and consumer protection laws.	<i>No direct response.</i> ----- <i>No direct response.</i>	Antitrust laws were enforced through criminal and civil enforcement actions by the DOJ's Antitrust Division, civil enforcement actions by the FTC, and lawsuits by private parties. How has Facebook harmed consumer welfare by providing free services or Google breached antitrust laws if they were but one search engine to choose from? ----- State government regulators do not put faith in any single sector of the economy or particular

company, but in the rule of law, including antitrust law and consumer protection law.

The *single entity* doctrine under antitrust laws: a company could not be held liable for illegal collusion with its subsidiary or parent companies. Both parent and subsidiary companies were considered one single entity. This would make blocking, throttling, and paid prioritization antitrust violations easier to evade by claiming a *single entity* defence.

The 2017 Order's transparency rule would require ISPs to disclose such blocking, throttling, and paid prioritization practices.

If an ISP were throttling some innovator's services that did not necessarily compete directly with the ISP's service, that practice of throttling would technically not fall under an antitrust violation. Most of the authority the FTC holds was in prohibiting unfair and deceptive trade practices; however, there was no civil penalty authority.

The FTC has its deception and unfairness authority and the ability to enforce industry promises and codes of conduct. The FCC should apply antitrust-like jurisprudential principles, not absolutist bans. Any remaining net neutrality regulations should require a rigorous marketplace competition analysis and a consideration of actual consumer harms.

Antitrust laws did not consider freedom of expression, access to knowledge, or infringement on privacy rights. Antitrust laws focussed on defining harm for higher prices and diminished product quality.

The Communications Act included an antitrust savings clause, so the antitrust laws applied with equal vigor to entities regulated by the Commission. An increase in the likelihood of antitrust enforcement would provide lower monthly user fees. Once corporations had been subject to enforcement actions, corporations were less likely to violate antitrust laws in the future. Economic incentives, including the spirit of competition, supported Internet openness.

ISPs were gatekeepers because ISPs had market power in selling Internet access to end users and selling to edge providers access to ISP subscribers. This two-sided market might lead to market failure even in the absence (or because of the absence) of ISP market power. 90% of U.S. citizens live under monopoly or duopoly markets for BIAS (broadband Internet access services). Gaining state government permissions to use rights-of-way under public streets, on poles and antennas, and on the radio spectrum allowed ISPs to offer cheaper service compared to smaller entrants.

The *gatekeeper* theory (i.e., the filtering and disseminating of information by ISPs) was overestimated and could be reduced by repealing Title II. Antitrust law could preserve freedom of expression and other social values as a service attribute; users would be aware of how their ISPs' actions affect free expression.

No direct response.

Section 5 of the FTC Act granted the FTC authority to proscribe ‘unfair methods of competition.’ There were three principles that guided the FTC’s determination as to whether an act or practice was unfair towards the spirit of competition, even if no specific violation of antitrust laws transpired: (1) the FTC will be guided by the promotion of user welfare; (2) the FTC will evaluate practices under a framework similar to the rule of reason, which considers whether the act or practice will cause, or be likely to cause, harm to competition or the competitive process, taking into account any associated cognizable efficiencies and business justifications; and (3) the FTC will be less likely to challenge an act or practice under Section 5 if enforcement of the Sherman or Clayton Act is sufficient to address the competitive harm.

Antitrust law cannot address paid prioritization since *non-discrimination* was not in the vocabulary of antitrust laws. If an ISP was not competitively disadvantaging any one of its competitors (a requirement for the *discriminatory-refusal-to-deal* antitrust doctrine), then no antitrust laws would be violated.

Antitrust laws prohibited agreements among competitors that reduced competition. Instances of harming competition, such as fixing prices, reducing output, or allocating customers, would be deemed illegal under the Sherman Act.

The net neutrality debates were organized into three camps that endorsed: (1) bright-line prohibitions to go after things like paid prioritization (e.g., the 2015 Order); (2) case-by-case enforcement adjudication pursuant to a non-discrimination standard (e.g., the 2010 Order to police paid prioritization deals); and (3) a case-by-case adjudication to police net neutrality disputes, but this time pursuant to antitrust standards. In the third camp, ISPs should be able to contract with third-party providers in a non-discriminatory, non-exclusive way.

The FTC did not have the tools to ensure an open Internet since it had no rulemaking authority. Rules prevented negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) to consumers and competition before it happens. The FTC had weak expertise in telecommunications, data network management practices, and detecting instances of data discrimination. Antitrust

The FTC should endorse and reinforce the FCC’s ruling by issuing guidance to state attorneys general and consumer protection authorities. The FCC should retain its ability to protect users and not shovel any remaining enforcement authority over to the FTC, which was ill-equipped to actually police the telecom market. The FTC was a \$313 million agency with 640 lawyers and 70 Ph.D. economists.

tools were geared towards protecting competition, and since the broadband marketplace housed a mere select few providers, antitrust law would be ineffective. Antitrust enforcement required detection, investigation, prosecution, a rule of reason analysis, and a multiyear appeals process; thus, fixing the harm to the rival competitor or resetting the competitive evolution of the marketplace would come too little, too late.

Bright-line net neutrality rules would give predictability to users and businesses. Users and smaller businesses would never be able to afford the cost of litigation and could only rely on other litigants or the FTC undertaking investigations as a wait-and-see measure to deal with negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data).

ISPs' infrastructure investment strategies and numbers.

Net neutrality did not hurt infrastructure investments. Chairman Ajit Pai's hope to increase infrastructure investment was a trade-off to gut broadband programs for low-income communities, protect cable box monopolies, rip off inmate families with prison phone monopolies, dismantle media consolidation rules, and eliminate broadband privacy protections.

AT&T'S CEO: AT&T had more than \$39 billion from operations in the 2016 year (a record). Dividends were given to shareholders and more capital had been invested in than ever before.

Comcast's CEO: Comcast doubled the capacity of its network every 18–24 months. Its investments grew penetration and market shares.

Verizon's CEO: From 2018–2020, optical fibre and hardware solutions of \$1.05 billion would be supplied.

The 2015 Order did not hurt over 40 smaller non-publicly-held ISPs' abilities to develop and expand networks.

The FTC served as a giant public interest law firm. The FTC had the authority and ability to enforce antitrust laws on a case-by-case, fact-specific basis. In instances of a clear market failure of an abuse of market power, the FTC had the authority to protect users and businesses. Antitrust enforcements required factual evidence of actual market power problems or consumer harms, and puts the burden of proof on complainants.

It was difficult to implement bright-line net neutrality rules (i.e., no blocking, throttling, or paid prioritization) when rules like paid prioritization were integral to the functioning of data packet switching and good for user welfare to provide a range of Internet service package offerings. Antitrust laws rested on a well-defined set of pro-user, economic efficiency principles and goals, giving some sense of predictability when it comes to enforcing laws.

Title II stifled growth, innovation, and investment. Nation-wide broadband investments dropped by more than 5.6%.

ISP executives' statements made to investors conveyed how business practices (not investment strategies) would not change because ISPs were not engaged in the conduct prohibited by Title II.

ISPs invested more than \$87 billion in capital expenditures in 2015 (the highest rate in 10-years). Investments in the aggregate had increased in 2016 and 2017 by 5%. In 2016, \$25 billion of venture capital funds invested in the U.S. went towards Internet-specific and software companies.

In 2018, ISP investments rose by \$3 billion, ISPs deployed fibre networks to 5.9 million new homes, and Internet speeds increased.

There was an aggregate investment increase of 5.3% by investors for ISPs during the two years after the 2015 Order was implemented, and two-thirds of ISPs increased investments in the broadband market, with some investing between 25%–50%. ISP stock prices rose by 17% more than the S&P 500 in the year through mid-2015. It was impossible for market players to have predicted a Title II reclassification was coming at that point in time; reclassification was not the course of action by the FCC in the 2014 NPRM (notice-of-proposed-rulemaking).

It was nearly impossible to show causation between an increase in ISP investments and stock prices alongside the implementation of Title II classification policy. The aggregate investment increase reflected the forward-looking, predictive capabilities of market players.

ISP executives told Congressman Sanford Bishop that net neutrality did not affect business decisions. Commissioner Jessica Rosenworcel: since the 2017 Order, capital expenditures decreased, but infrastructure numbers should be subject to peer review and ISPs' data should be subject to external reviews. Senator Ed Markey questioned Chairman Pai's evidence to repeal net neutrality protections since ISPs increased deployment and investment and accused him of relying on scattered anecdotes.

Chairman Pai said he would change his mind about net neutrality if presented with economic analysis that showed an increase in infrastructure investments. The FCC's Office of Economics and Analytics was created to centralize workflow around economists and data analysts to conduct research and analysis on the drawbacks and benefits of proposals, gaps in the data, and findings in geographic information mapping. Chairman Pai replied to Senator Markey's question by saying that investments were down among the top 12 ISPs, in terms of size, and other smaller ISPs (including municipal broadband providers, fixed wireless providers, and small cable companies).

According to the U.S. Census Bureau's Annual Capital Expenditures Survey for 2015, the total capital expenditures by wired telecom carriers, cable distributors, broadband ISPs, wireless telecom carriers, and telecom resellers increased by \$550 million over 2014.

Comparing 2013 (the year before President Obama announced his desire for Title II reclassification) with 2015 (when the FCC reclassified broadband as a Title II service) showed annual capital investment being slightly lower in 2015. There should be overwhelming market failure to pre-emptively regulate all 4,462 ISPs, not scattered anecdotes.

Free Press's study claimed investments were at all time highs after the FCC's 2015 Order.

Economist Hal Singer's findings in tracking investments of 12 ISPs between 2014–2016 found that domestic capital expenditures declined by 5.6% or \$3.6 billion. Studies that concluded investments had increased may have counted upgrading foreign networks as domestic network investments. U.S.-based ISPs may change accounting treatment of handsets from an operating expense to a capital expense, thus rendering total expenditures inaccurate. Singer subtracted some investments that were not affected by the regulatory change (e.g., AT&T's investments in Mexico and DirecTV investments following its acquisition by AT&T). Free Press did not consider foreign investment as capital expenditures.

Doug Brake adjusted the Singer and Free Press numbers to cover the same ISPs, span the same time period, and subtract investments unaffected by regulatory change. The result: ISP investments fell by about 3% in 2015 and 2% in 2016.

No direct response.

The FCC feared that any future regulator could increase its reach and extension of regulations beyond defined measures. Title II added a risk premium on each investment decision, which reduced the expected profitability of potential investments and deterred investment. ISPs were less willing to invest since the FCC could reverse any decisions under Title II with rate regulations and unbundling/open access requirements. ISPs would think twice before investing in innovative business plans that might violate the FCC's undisclosed policy preferences and give rise to cease-and-desist order and forfeiture penalties.

Commissioner Mignon Clyburn: identifying an effect or capital expenditures lends no insight into what caused it. The record offered no proof that investment trends matched the regulatory landscape. Economic rigor came from isolating variables (e.g., time, with past and present changes in investments). The broadband capital exchanges trend aligned with the capital exchanges trend; if ISPs decreased investments, it could be due to

No direct response.

macroeconomic factors that influenced the overall economy.

Paid prioritization.

Past FCCs feared that ISPs would prioritize data through discrimination, subsidization, pricing, blocking, and throttling through packet switching. AT&T had a monopoly in the telephone industry, which may have crept into the ISP industry. It produced inequality for market players and users.

Paid prioritization strengthened investments in the U.S. market economy. Lifting the ban on paid prioritization would increase network innovation and increase the development of high quality-of-service arrangements, which addressed data packet loss, packet delay, secure connectivity, and guaranteed bandwidth. Paid prioritization would lead to higher investment in broadband capacity, which reduced congestion and lead to greater innovation for edge providers.

Without clear and enforceable net neutrality protections, higher costs to access greater benefits in services and tools stood in the way for businesses since many sole proprietors would not be able to pay those tolls for premium access. Once you pay a fee to enter, you ought to be able to go where you want, when you want, and how you want.

Paid prioritization could be a means to close the digital divide. ISPs did not engage in virtual redlining (i.e., the red lines drawn on geographic maps to indicate low-income areas to avoid infrastructure and service investments). ISPs could charge both sides of the market (end-users and edge providers); the opportunity to provide special low-cost broadband access to low-income users should present itself.

ISPs had the same authority when selling lucrative cable television packages to users; ISPs decided where users go online and sets packages and tiers which require more money to reach more of the Internet. Because cable companies have lost many TV customers due to the cutting the cable phenomenon, where users now largely consume media and entertainment content online, cable companies have increased prices.

Some services and applications should be prioritized because of their emergency-type nature (e.g., FirstNet network), just like prioritizing 9-1-1 ambulance calls and traffic.

Prioritizing data traffic was considered acceptable for domestic or foreign terrorism, helping non-profit organizations in communicating public policies, or medical emergencies or doctors' video visits scenarios.

The airline industry makes basic services miserable for travellers, forcing travellers to upgrade.

Most users witness differentiations in products and services in airline, oil, fashion, and postage mail industries.

Burger King believed the Internet should be the same for everyone, just like its Whopper burger. Tiered pricing for different burgers that were made and delivered faster or slower to customers who paid more or paid less made customers angry.

Offering loyalty discounts to paying, recurring customers was not so negative. Some customers used senior-status cards, coupons, a credit card to acquire points, and a loyalty card to receive discounts at grocery stores. Customers could get discounts for attending afternoon movie matinees, early-bird specials at restaurants, and happy hour.

When requesting a beer (website), that beer should be served to you (broadband user) by the bartender (ISP) at the same speed, each poured the same. Regulators believed that all

If ISPs did not show market power, laws should not second guess which content should

beer should be served fairly and equally; however, beer could slowly drip out of a tap (slow down access) when the draft faucet was tampered with or taken apart (blocked). Why should a bartender play fair if that bartender is the only game in town? The bartender may also have reason to prioritize some draft taps over others since the bartender owns some of those taps.

ESPN could buy a network latency and speed advantage over an up-and-coming streaming sports outfit. Given the lack of competition, neither users nor impacted companies had a choice to route around that behaviour.

No direct response.

No direct response.

No direct response.

ISPs had an incentive to engage in paid prioritization since they were vertical and owned content. Why post competitors' content at the same rate?

The Web should be treated as a commodity to be paid for each month.

be favoured. Laws did not editorialize and direct Amazon what books to promote, *The Washington Post* what columns to carry, or ESPN what games to broadcast.

A ban on paid prioritization could cause an increase in user prices since the rules would prohibit ISPs from paying their full share of costs. Prior to the 2015 Order rules in place, unretained ISP power did not exist; online creativity, innovation, access, and choice existed before 2015.

Prioritizing and zero rating (i.e., not counting specific traffic towards users' data caps) would give users abilities to tailor their own monthly plans.

Regulations were an outright assault on the property rights of private companies who were severely restricted in their ability to control the networks.

Some ISPs believed it was a bad idea to impose a broad prohibition on paid prioritization; some were fine with a narrow prohibition under section 706; and others were concerned about regulatory creep. Companies could be more reluctant to invest in the present if regulatory measures would strand those investments tomorrow.

It was impossible or impracticable for ISPs to distinguish between intrastate and interstate communications or to apply different rules in

each circumstance. Some edge providers invested in content development networks for which they directly connected to ISPs; ISPs provided interconnection without monetary payment by either party to network operators that offered a balanced exchange of traffic and mutual value to the providers and their users. If there were shifts in traffic volumes or flows or if traffic or value exchange were uneven, sharing the costs of upgrading capacity or making payment in one direction or the other could occur; all network costs would be shifted to ISPs' users.

The State of Rhode Island's law for vendors to abide by or receive a waiver included a *paid prioritization* rule: the management of a broadband network to directly or indirectly favour some traffic, including traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either (i) in exchange for consideration (monetary or otherwise) from a third party, or (ii) to benefit an affiliated entity, was permitted. Paid prioritization did not include the provision of tiered Internet access service or offerings to an end user.

No direct response.

Walled gardens: where ISPs restricted access to content, applications, platforms, services, and/or devices to partners and users. Paying tolls put an emphasis on the legal and business administrative side of commercial negotiations to gain access.

No direct response.

Statewide
broadband
access bills.

The laws imposed by the State of California included a prohibition on zero rating, which allowed ISPs to exempt content from companies from counting against the total data cap usage allotted to users each month. The discounting of an ISP's very own streaming site would be an unfair practice since users would limit or avoid access to competitors' streaming sites. The prohibition would not be applicable if a carrier wanted to exempt an entire category of content, like all streaming services. The law also banned interconnection fees that a company paid when its data packets accessed the ISP's network.

Banning free-data plans only hurt users who did not have to worry about paying more in monthly bills if they were to go beyond the data limit; many low-income U.S. citizens enjoyed zero rating.

The laws imposed by the State of North Carolina prohibited ISPs from practicing

Instead of multiple state laws, one federal law would be better. Regulatory compliance costs for new entrants was not a valid reason for a national policy. New ISP entrants would face elevated costs of deploying a network and would end up being a much higher cost than compliance costs to keeping the network neutral. Even for ISPs to brand themselves as being net neutral was one way to entice consumers who actively sought non-paid prioritization services.

blocking, throttling, and paid prioritization; any violation of the bill would be treated as an unlawful trade practice; and ISPs were required to fully disclose information to their users about network management practices, performance characteristics, and commercial terms to help make informed decisions. \$20 million would be allocated from the state’s general funds to the Department of Information Technology; \$17.5 million would be allocated to increase access and improve service to underserved households, businesses, and communities to encourage private investment by lowering capital expenditures for existing and new service providers; and \$2.5 million would be allocated to mobile hotspots and other devices for students without home broadband access to help close the state’s homework gap.

States could create standards when it came to spending money even if a federal agency could override state laws.

Note. The phrase “*No direct response*” is indicated for net neutrality advocates or opponents who did not have a direct response to an issue raised by the other side.

Table H2

Chapter 4 Summary Table

Issue	Net Neutrality Advocates	Net Neutrality Opponents
Statewide broadband access bills.	<i>No direct response.</i>	If an ISP sold a <i>clean Web</i> version to users that intentionally blocked inappropriate content, state governments could sue the ISP and claim that state laws compelled the ISP to transmit <i>all</i> content regardless of age-appropriateness or moral/ethical-standards alignment with users. Some sites would be blocked or filtered if sites infringed on laws. Does filtering content escape the scope of law since the First Amendment protects ISP curation? Or does allowing an unedited Web for all content to thrive make a better case for upholding free speech rights?
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	Most states that adopted net neutrality principles declared that a business may not contract with an ISP that: (a) engages in paid prioritization; (b) blocks lawful content, applications, or services, or non	Senator Marsha Blackburn’s bill provided rules against blocking and throttling of data, but not paid prioritization (subject to <i>reasonable network management</i>). The bill would limit the FCC’s regulatory role to

harmful devices; (c) impairs or degrades lawful Internet traffic for the purpose of discriminating against or favouring certain Internet content, applications, or services, or the use of non-harmful devices; (d) unreasonably interferes with or unreasonably disadvantages an end user's ability to select, access, and use BIAS (broadband Internet access service) or lawful Internet content, applications, or services, or devices of the end user's choice; or (e) unreasonably interferes with or unreasonably disadvantages an edge provider's ability to make devices or lawful content, applications, or services available to end users. Paid prioritization would be allowed if the state Public Utility Commission determined it to be in the public's interest and it did not harm the openness of the Internet. Any activity described in (b) through (d) above that the state Public Utility Commission considered the ISP's engagement to be *reasonable network management* (i.e., has a technical network management justification, does not include other business practices, and is tailored to achieve a network management purpose in considering the network architecture and technology of the BIAS) would be permitted.

The State of California's net neutrality legislation prohibited ISPs from engaging in blocking and throttling traffic, paid prioritization, and zero rating.

adjudication of complaints alleging violations of the legislation and bar it from rulemaking. The bill pre-empted state and local laws from imposing Internet openness obligations for ISPs.

The State of California's legislation was radical and anti-consumerist that would impose restrictions more burdensome than the 2015 Order. The act was illegal and only made possible by 'nanny-state' legislators. States could not govern data traffic since data does not recognize state lines; micromanaging traffic created risks for how other states manage traffic flows. Only the federal government could set regulatory policy.

The act countermanded and undermined the 2017 Order by imposing on BIAS FCC regulations that were repealed. The FCC's 2017 Order and the Communications Act of 1934 prohibited states from taking such actions. ISPs connected with multiple network operators for traffic exchange. Content in CDNs (content delivery networks) could be stored in various geo locations; thus, to accommodate different state-centric bills would be near impossible.

If paid interconnection arrangements were absent between edge providers and ISPs, all network costs would shift to ISPs' users, skyrocketing monthly billing fees. Many edge providers paid intermediate network providers to reach ISPs, but some invested in CDNs to connect directly to ISPs instead. These latter edge providers did not pay ISPs directly (i.e., 'settlement-free' interconnection). In place of monetary payments, an exchange of traffic and mutual value to providers and users for both parties would unfold. If traffic and value were imbalanced, interconnection agreements with payments to one side followed, and sometimes both parties shared the costs of upgrading capacities to account for high traffic volumes and flows. The payments would reduce disproportionate funding network costs to one provider. The payments also provided market-driven incentives for interconnecting parties to exchange Internet traffic efficiently and predictably.

Under the court decision of *National Cable & Telecommunications Association v. Brand X Internet Services* (2005), ISPs were in the business of baking pizzas and delivering them; however, most ISPs have given up on baking today.

Once a pizzeria receives an order, the pizzeria bakes the pizza and delivers it. It would be ridiculous for a pizzeria to say that even though it brings pizzas to houses, it does not offer delivery since the delivery is part and parcel of its pizzeria-pizza-at-home service and is integral to its other capabilities. Instead, ISPs should be equated with Uber Eats delivery drivers. ISPs may have a method for delivering the food and the means for keeping the food warm, but this did not make ISPs the chefs. ISPs were not primarily in the business of content creation; ISPs primarily delivered content through their backbone to edge providers.

Mozilla Corp. v. FCC (2019) outcome.

The U.S. Court of appeals case was about Petitioners attempting to appeal the FCC's 2017 Order reclassification of Internet services as *telecommunication* (or *common carrier*) services into *information* services.

In the *Brand X* case, the FCC was able to uphold its classification of BIAS as an *information* service and that the FCC had statutory interpretation abilities.

The Petitioners were unsuccessful fighting for reclassification.

The Appeals Court ruled that state and local laws could enact net neutrality rules.

BIAS as an *information* service (Title I) vs *telecommunication* service (Title II) classification.

ISPs offered both *information* and *telecommunication* services since all BIAS (broadband Internet access service) had a transmission component.

The 2017 Order's reliance on DNS (Domain Name System -- i.e., matching names to numbers of a website) and caching (i.e., the storing of data to load future requests faster and reduce latency) as reasons to reclassify BIAS as an *information* service were arbitrary and capricious since neither were *information* services. DNS and caching were implementation mechanisms that constituted user-directed transmission of information from point to point over the Internet as a *telecommunication* service. BIAS was a service that provided users transmission of content of their choosing between points of their choosing.

If BIAS was designated as an *information* service, so too should telephone calls since they offered access to automated information or an operator who could generate or act on information given; the telephone was not designated as an *information* service. The FCC also based its BIAS designation as an *information* service since it was designed with advanced features, protocols, and security measures to integrate directly into electronic computer systems. Was pressing a sequence of numbers on the telephone when calling the pharmacist the same as clicking through websites where a transformation of data occurred?

If one did not accept the claim that all roads designed to lead to hotels are themselves hotels, an alternative to the claim could be made: the road is a hotel because the builder has also built rest stops, where drivers can find amenities. Is the mix of road and rest stops so integrated as to make the road a hotel? The argument may be less extreme, but it is equally unreasonable, if the rest stops bundled with the road have mostly closed, and the drivers now perceived the

When an end user types a domain name into their browser and sends a DNS (Domain Name System) query to an ISP, the ISP converts the human-language domain name into a numerical IP address, and it then conveys that information back to the end user who sends a follow-up request for the Internet resources located at that numerical IP address. Information becomes rendered from point to point in a network exchange.

An ISP makes use of *telecommunications* -- i.e., it provides information-processing capabilities via *telecommunications* -- but does not separately offer *telecommunications* on a stand-alone basis. The *telecommunications* component had always been intertwined with the computer processing, information provision, and computer interactivity capabilities as *information* service offers. BIAS providers did not dispute the 'via *telecommunications*' criteria even though they simultaneously argued that they did not provide *telecommunication* services to users. ISPs transmitted traffic between points on networks that the ISP chose to have carried by that transmission link. If BIAS was rendered as a *telecommunication* service, the category of *information* services would be narrowed. Some *telecommunication* services were inputs into BIAS, thereby satisfying the 'via *telecommunications*' criteria. Information was transformed through BIAS and ended up not being the same entity after data packets became reassembled.

Policy in this technical and complex area should be set by the Commission, not by warring analogies. Mozilla's road-and-hotels analogy was flawed since: (1) users must remain on the road (i.e., broadband) to enjoy edge providers' offerings; thus, edge providers were not like hotels where users enjoy offerings after turning off the road; and (2) broadband should not be perceived as a road (i.e., as a telecommunication service) because broadband offers capabilities that allow the user to find the

road simply as a means of getting to the hotels.

best hotel, store her belongings there, retrieve them at any time, and even become her own hotel (i.e., information-processing capabilities).

Heavy reliance on ISPs' comments should be scaled back and more serious consideration for decision-making should be based on the thoughts of independent computer engineers in the field. ISPs change the form or content of the information over networks; the information's form was changed since it involved the closure, distribution, and reassembling of data packets. Changing the data packet structure did not alter the form of the information itself. Users unknowingly ask their ISPs to transmit the payload of the data packet (i.e., the data contained within the packet) to its destination as it intended it to be received.

ISPs argued that the FCC should be relying on the expertise of engineers.

No direct response.

Since repealing Title II, none of the *Chicken-Little* predictions of Title II proponents, Senate Democratic Party members, and other regulatory advocates came true. After the FCC repealed the 2015 Order, the Web did not implode, slow down, nor did users receive information one word at a time. Broadband download speeds increased to nearly 40% and upload speeds to 22% in December 2018.

Deep packet inspection (DPI).

DPI was a network management technique that enabled network operators to inspect the header and data field of the packets. The header contains the source and destination addresses and the data field includes the message content and source application identity. It allows for network operators to identify the origin and destination points of the data packets and determine the application used and content of that packet to then differentiate or discriminate data packets. It could be used in filters and firewalls to detect and prevent spam, viruses, worms, and malware, used to gain information to help plan network capacity and diagnostics, and used to respond to law enforcement requests. Some types of discrimination should be permitted that could be beneficial to network operation

No direct response.

and improve the user experience while protecting against anti-competitive discrimination.

Information collected from DPI could be exploited to discriminate against competitors and services by routing a network operator's data packets along a faster priority path or actively throttling competitors' traffic.

In the 1960s and 70s, packet-switched precursors to Internet access were under Title II designation. In 1966, the FCC released its first Notice of Inquiry regarding the interdependence of computers and common carrier *telecommunication* services, which would have implications for packet-switched networks. In the early 1970s, AT&T almost purchased ARPANET (the first packet-switching network and first of its kind to utilize TCP/IP (Transmission Control Protocol / Internet Protocol)) to operate it as a *telecommunication* service. AT&T developed its own packet-switching network over a decade later. Some ARPANET developers founded Telenet Corp., which was approved with an FCC licence to operate on a commercialized common carrier basis in 1974. Today's FCC was not returning to Title I designations over packet-switched networks. DSL (digital subscriber line) services had Title II designation until 2005. Presently, hundreds of wireline carriers offer broadband as a Title II service. The FCC began deregulating Internet transmission in the early 2000s. The FCC never had a clear rationale on how to handle the transmission component that was clearly a *telecommunication* service when it relied wholly on intermodal (i.e., the exact same services offered by different technology formats). The FCC majority's characterization of its history as a 'deregulatory nirvana' was false.

Packet-switching would break information data down into multiple data packets and send the data across different pathways to be reassembled to the designated address. No dedicated circuit was needed, like in a

No direct response.

Title II designations were devised during the Depression era. There should be 21st-century rules for 21st-century technology. A utility-style framework was outmoded, outdated, and framed during the Bell telephone monopoly era. The Internet revolution began because the federal government stayed out of the way, supporting a 'light touch' regulatory framework where innovation, competition, and investment could survive and thrive.

phone-to-phone connection. The FCC classified BIAS (broadband Internet access service) under Title II designation since DSL carried both data and voice transmissions simultaneously along the circuit-switched and packet-switched network splits. In 1998, the FCC concluded that packet-switching was a transmission technology, which came with an unbundling requirement: ISPs could set up their own information services to provide Internet access over DSL, but they had to offer competing ISPs non-discriminatory access to network elements and the same services the telephone companies' ISPs used. The FCC enforced principles of open access and non-discrimination through Title II authority. The FCC today crafted a revisionist history and glossed over facts about Title II and how data packets were governed.

Walled Gardens.

Giving ISPs the ability to set up walled gardens was akin to giving ISPs the keys to control the narrative on how we think. Would your website disappear or slow down when you express political views that someone does not like? The FCC's light-touch regulations would encourage ISPs to engage in content-based control.

The lack of choice between ISPs leads to users considering paying for higher tiered service plans and accepting the walled gardens enveloping around them. About 40% of households have one wireline provider of broadband access at download speeds of 25 Mbps or more, and another 9% have no such provider at all. About 45% of households have a choice of two providers, while 6% have a choice of three or more.

If a user reached their allotted monthly data cap, their ISP would still allow them to access that ISP's streaming service application which would not count towards a user's monthly data cap (i.e., zero rating). ISPs spin a web of walled garden control secretly and discreetly to divert the attention away from competitors' services towards their own or partnered services. ISPs set up camps of content through mergers and partnerships to win the user attention war. Opening networks up to competitors was a key pathway forward to fairness.

The FCC could not penalize ISPs from expressing favouritism of content since it was protected expression; it would be contrary to the First Amendment to limit ISP curation.

5G.	The shift from stationary computing devices and home broadband to mobile devices connecting to 5G cellular networks will open up all new laws and regulations.	5G should advance competition and connect a new array of ‘Internet of Things’ devices (e.g., autonomous vehicles). 5G requires a prioritization on networks that require extreme responsiveness. Innovation and competition may be harmed by the regulatory overreach of a future administration.
		5G uses higher frequency waves, allowing network towers to send and receive more data faster. If the Title II designation remained, we would have one network for which the FCC would set the price and speed, and one whose cost taxpayers would have to bear. Chinese companies Huawei and ZTE outspent the U.S. on 5G buildup by \$24 billion and had built 350,000 new wireless towers since 2015, compared to the U.S. who built 30,000 towers.
		Applying net neutrality to 5G networks would cripple performances. To allow for network slicing to provide different functions and performance features to address specific use cases for users and Internet performance needs was to allow for paid prioritization, blocking, and throttling. A <i>network slice</i> was a logical (virtual) network customized to serve a defined business purpose or user, consisting of an end-to-end composition of all the varied network resources required to satisfy the performance and economic needs of that service class or user application. Network slicing included multiple logical and virtual networks for specific applications, services, users, or networks over a shared infrastructure layer, where some applications require different performance features, such as latency or prioritization of data packets.
Paid prioritization.	<i>No direct response.</i>	There were application layers that connected to encrypted data, a transport layer that rendered the data transferable, and the network layer that identified the data packet routing sequence. Some devices, software, Wi-Fi routers, and content delivery networks managed traffic. Prioritization was about queuing bits of data over others to ensure data packets arrived at the destination on the fastest, most efficient route possible. A ban on paid prioritization would disrupt the operation of most services and applications.

Depending on the type of application users were accessing, certain applications utilized slices (segments) of radio waves of a network. Each slice of radio waves had specific performance features (e.g., a higher prioritization of data packets). Each performance feature associated with the slice (segment) of radio waves came at varied price points.

Note. The phrase “No direct response” is indicated for net neutrality advocates or opponents who did not have a direct response to an issue raised by the other side.

Table H3

Chapter 5 Summary Table

Issue	Net Neutrality Advocates	Net Neutrality Opponents
The Mendocino Complex fire tragedy.	During the attempt to contain the wildfire, Verizon throttled the data speed of Santa Clara Fire Department since it exceeded its allotted monthly limit, even though it paid for unlimited data. The data throttling affected the fire department’s fire vehicle to function effectively as a command-and-control resource for the deployment and organization of thousands of personnel and hundreds of fire engines, aircraft, and bulldozers. Although ISPs do throttle data speeds during peak congestion times, the fire department claimed that Verizon continuously throttled its data speeds once its limit was exceeded. ISPs will use the exigent nature of emergencies to coerce public agencies into higher cost plans. While this incident was technically not a net neutrality violation, the 2017 Order impeded first responders’ ability to contest the restrictions. Verizon’s contract indicated that data speed restrictions would be removed in emergency situations, a practice that was not followed. Firefighters rely on real-time information systems (‘GIS’ (geographic information system)) mapping to monitor fires and coordinate emergency responses, track information, and save lives. The 2015 Order would have allowed the FCC to consider a complaint that an ISP unreasonably interfered with and disadvantaged public safety data transmissions – whether GIS mapping or live video of a fire or flood’s path.	Verizon told the fire department that a new upgraded data plan at twice the cost had to be signed before service could be restored. This incident had nothing to do with net neutrality. The user purchased a state government contract plan for a high-speed wireless data allotment at a set monthly cost; users get an unlimited amount of data, but speeds are reduced when they exceed their allotment until the next billing cycle. Verizon conceded that some of the blame should be attributed to a user service error and that full-service should have been immediately restored since the fire department was responding to a public emergency. The County’s lawyers must have been aware of how the data plan worked and that data throttling could have been avoided if the fire department remembered to invoke the special policy regarding suspension of the speed restriction or switch to a data plan without a speed restriction. The fire department may have been confused about how its data plan triggered speed restrictions after the first 25GB of data usage or may have forgotten that the speed restrictions had been waived only temporarily. The fire department should have paid a pay-as-you-go plan with no speed restrictions. Whether Verizon accurately communicated how the service and plan options worked was a question of consumer protection law, as policed by the FTC. If usage exceeded five gigabytes per account line during any billing period, Verizon reserved the right to reduce throughput speed to a maximum of 200 kilobits per second for up to

30 days. Verizon took responsibility for the oversight by acknowledging the mistake, apologizing, and putting fixes in place within a few days, and sent executives to the California legislature to testify at a public hearing. Verizon rolled out a new plan for first responders that had no speed restrictions at no additional charge.

The State of California passed a bill to prevent ISPs from imposing restrictions on first responders during an emergency.

The claim that providers may not impair or degrade Internet traffic was speculative. The number of people who could declare an emergency was also speculative, and ISPs should be notified of an emergency if they are to adjust service.

U.S. politicians' arguments for and against net neutrality.

The day before Donald Trump's inauguration, Sinclair's Chairman met with Ajit Pai, just before he was promoted as FCC Chairman, to discuss a rewriting of corporate merger rules to make it easier for Sinclair to acquire Tribune. With more local programming (over 70% of U.S. households) coming from a centralized (ultraconservative) source, there would be less information and less diversity of ideas in local reporting, which was bad for competition and democracy.

No direct response.

No direct response.

Net neutrality advocates embellished *Chicken Little* scenarios about how consumer protections would be lost under the 2017 Order. Despite outlandish claims and doomsday predictions from groups dedicated to stoking political controversy, users will see that their Internet service will remain unchanged. Apocalyptic rhetoric and fearmongering were implored.

"Save the Internet Act of 2019" attempted to restore net neutrality principles with no blocking, throttling, or paid prioritization by ISPs. Democratic Party members pushed the act through in a 232 to 190 vote, but Senate Majority Leader Mitch McConnell said it was dead on arrival in the Senate. President Trump vetoed it.

Without federal legislation, net neutrality rules would continue to be adopted and repealed depending on what party was in charge. Bipartisan legislation needed to be adopted. Republican Senator John Wicker tried to gather both sides to participate in the Senate Net Neutrality Bipartisan Working Group. A permanent statute should be enacted to place non-discrimination online in the law and outside of Depression-era laws and regulations.

Democratic Party members invoked the Congressional Review Act (CRA) -- a fast-track legislative vehicle that allowed Congress

to authorize a resolution of disapproval of agency regulatory actions. The motion passed the Senate but failed at the House of Representatives level due to an insufficient amount of signatures required to force a vote.

In 2014, Republican Senator John Thune proposed a permanent legislative solution banning blocking, throttling, and paid prioritization of Internet traffic to combine protections that ensured ISPs could not use their role to manipulate the user experience with those guaranteeing light-touch regulatory policies. FCC Chairman Tom Wheeler blocked this proposal in Congress.

“Save the Internet Act of 2019” was total hypocrisy and a federal government takeover of the Internet. Democratic Party members wanted a panel of unelected bureaucrats to have nearly limitless control over the Internet, including decisions over content moderation and imposing new taxes and fees for Internet services.

The CRA was a disapproval resolution that would leave the issue of net neutrality in the hands of the FCC rather than a substantive law that would fix the problem. The act would send regulatory issues back to the Trump Administration and give a future FCC free reign to erase Internet protections, all while doing nothing to reign in the abuses of ISPs, Big Tech, and leave future monopoly abuses unregulated. The act would produce ambiguity in clear sets of rules for ISPs, regulators, and users. The FCC was unwinding the heavy-handed regulation from the 2015 Order and attempting to reregulate, not to deregulate or prevent regulations from going into effect under the act. The time wasted on trying to pass the CRA to repeal FCC-enacted regulation would prompt uncertainty where one FCC to the next would continue to change the rules and where companies spend millions of dollars in litigation in courtrooms on lawsuits.

Social justice concerns.

The digital divide meant a lack of choice and limited-to-no access to digital tools, platforms, devices, services, and applications. Half of U.S. households did not have the opportunity to choose more than one provider. It was also difficult to encourage a free market competition-based assembly when there was such large income inequality to begin with. The digital divide is a closing of the commons since private online platforms were spaces for conversations. Culturally-controlling content through walled gardens keeps low-income users from participating.

The CRA was an obscure legislative tool that would not protect a free and open Internet, and would continue to leave many rural and minority residents in California on the wrong side of the digital divide. Closing the digital divide in poor rural areas and towns was more important than arguing about Title I and II classifications. Broadband deployment in the rural U.S. and infrastructure investment throughout the nation brighten the future of innovation within networks and at its edge.

The repealing of net neutrality was an assault on freedom of information. ISPs have speech rights, but as gatekeepers, ISPs served as conduits for the speech of individual users. Because the 2015 regulatory framework required ISPs to conduct itself as common carriers, there was no violation of the ISPs' speech rights. People of colour rely on net neutrality protections to tell their stories, advocate for their communities, and speak out against injustice. The blocking, throttling, and exclusive access to open information degraded the kinds of speech that were essential to the fight for digital civil rights, and more unaffordable broadband options for people of colour and those disconnected from the Internet stem from the 2015 Order repeal. Bright-line rules were necessary to ensure that media firms continued to invest in a diverse array of content; independent and diverse content producers may be harmed by eliminating those rules. Only 54% of Black Americans and 50% of Latinos subscribe to a home broadband service, compared to 72% of White Americans. ISPs focussed investments on deploying broadband technologies in high-income urban, suburban, and middle-income neighborhoods; high poverty rates correlated with decisions not to invest (i.e., virtual redlining). Communities of colour relied on online platforms since many traditional outlets do not consider their issues or concerns worthy of coverage.

FCC members' arguments made during the 2017 Order hearing.

FCC Commissioner Mignon Clyburn: the 2017 Order was a finely-spun, legally-lightweight, consumer-harming, corporate enabling, and destroyer of Internet freedoms. The FCC failed to make available to most U.S. citizens, without discrimination, BIAS at reasonable monthly charges. Despite the millions of comments, letters, and calls received, the 2017 Order never cited one; sole proprietors who expressed concerns about being unable to afford Internet access never had their stories heard. ISPs were building regimes to become arbiters of acceptable online business models and the FCC's regulatory substance would fade away. The FTC had zero technical experience with the BIAS industry; it required proof of unfair or deceptive practices and substantial consumer injury, taking years to receive legal justice.

FCC Commissioner Michael O'Reilly: the 2015 Order was at the height of regulatory capriciousness since businesses could be subject to investigation without any prior notice that the conduct could be considered a violation, which left many businesses confused and worried about the FCC's overreach. The FCC did not rely on comments sent by bots or people who used expletives since it added no substantive value to the inquiry. The previous FCC thought it was their duty to enact unnecessary and harmful edicts with the purpose of imposing their will over that of innovators, users, and Internet businesses. Former President Obama's elitist rule attempted to create a near omnipotent, unaccountable enforcement regime to troll Internet practices, declaring winners and losers like a drunk 1920s NYC cop on the beat.

FCC Commissioner Jessica Rosenworcel: the 2017 Order was on the wrong side of communications law and history and the U.S. public. ISPs could evade FTC recourse by adding new provisions to the fine print in their terms of service agreements which would define their intentions to block, throttle, and prioritize data packets. History will be bent towards a more just outcome in the courts and in Congress to ensure that net neutrality stays the law of the land because everyone benefits from Internet openness.

FCC Commissioner Brendan Carr: federal antitrust law will be a formidable hammer against discriminatory conduct by ISPs and would directly address negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data). The debate between Title I and II classifications was not the thin line between where we are right now in some Mad Max version of the Internet; users can still enjoy a free and openly accessible Internet. Title II classification divested the FTC 100% of its consumer protection authority over ISPs, including its ability to police ISPs that engaged in unfair or deceptive practices, whereas Title I classification would provide powerful legal checks. State consumer protection laws would apply and state attorneys general could bring actions against ISPs.

The FCC received a telephone call that two explosive devices were in the building and set to detonate in 30 minutes, with one supposedly in the Commission Meeting Room. Everyone left the room, Federal Protective Service Explosive Detection Canine Teams swept the facility and gave the ‘all clear,’ and everyone reconvened.

FCC Chairman Ajit Pai: outrage should be directed towards edge providers who annotate search results based on paid prioritization. The FCC was not in the business of picking winners and losers in the Internet market economy. The FTC was the nation’s premier consumer protection cop on the beat. It was time for the Internet to be driven by engineers, entrepreneurs, and consumers rather than lawyers, accountants, and bureaucrats.

Arguments by CALinnovates against 2015-style net neutrality rules / the influence CALinnovates had on the 2017 Order.

CALinnovates mirrored what Chairman Ajit Pai said about how the principles found in the 2017 Order should be driven by engineers, entrepreneurs, and consumers. CALinnovates was cited five times in the 2017 Order and questions were raised about its financial lobbying ties it had with AT&T and the influence it had on the 2017 Order.

Congress should establish clear guidelines ensuring that the Internet remained open, that anticompetitive practices were forbidden, and that the stifling of innovation was prevented. The FCC should be playing a refining role, not one of broad sweeping pronouncements and reversals from electoral outcomes. Title II gave the FCC the authority to set prices and conditions of service, to prevent broadband carriers from discontinuing service, and to require utility-style tariffs. Forbearance compounded uncertainty and discouraged innovators and investors. Entrepreneurs and users deserve better than the ping-pong of regulatory uncertainty. Congress should draft consensus legislation to ensure fair competition, permissionless innovation, and low capital entry barriers, and not press conferences and partisanship. State-specific legislation was a patchwork of laws and would enrich lobbyists and lawyers while leading to uncertainty, higher prices, and fewer jobs.

Personal attacks.

Online attacks were made against State of California Democratic lawmaker, Miguel Santiago, for removing whole portions of a bill to revive net neutrality rules. Personal family pictures were stolen from Santiago's social media accounts and used to create memes, including a picture with captioned texts of him telling his wife and children how to be a 'sellout whore,' alluding to how Santiago's actions were done to appease AT&T and other ISPs with whom he had financial ties with.

Chairman Ajit Pai and his family's lives were threatened by Markara Man through emails that accused Chairman Pai of being responsible for two children committing suicide on the account of the net neutrality repeal, threatened to kill Chairman Pai's children, and posted an image of Chairman Pai and a framed (out of focus) photograph of him and his family in the foreground. Man said the FCC ignored 80% of the submitted ECFS comments, wiped out his smartphone's data, and sent an apology letter to Chairman Pai about threatening his children. If convicted, Man could face a maximum penalty of 10 years in prison for threatening to murder a member of the immediate family of a U.S. official with the intent to intimidate or interfere with him while performing his official duties, or with the intent to retaliate.

74% of U.S. citizens supported net neutrality legislation that banned blocking, throttling, and paid prioritization as long as the rules applied equally to ISPs and edge providers. 46% did not want the federal government to have an active role in regulating the Web. 18–29-year-olds were nearly twice as likely to favour Congressional action versus continued FCC oversight.

Mike Montgomery, Executive Director of CALinnovates, said that net neutrality principles should be passed only if they could be codified into law (a contradictory argument between his call to pass net neutrality principles into law through Congressional legislation and his condemnation of Title II extending the FCC's regulatory reach).

No direct response.

No direct response.

	Patrick Angelo admitted to threatening to kill Congressman John Katko and his family on a recorded telephone message if he did not support net neutrality. Federal prosecutors filed criminal charges against Angelo, which carried a maximum penalty of five years in prison and a \$250,000 fine. In a written pretrial detention order of which Angelo was appealing, Angelo was found to present an unreasonable risk to others and the community through continued acts of violence, and that no conditions of release would mitigate that risk.	<i>No direct response.</i>
Things users could still do after the enactment of the 2017 Order.	One of the video segments included dancing to the 2013 meme-sensation <i>Harlem Shake</i> with a <i>The Daily Caller</i> video producer who promoted the <i>Pizzagate</i> conspiracy theory (i.e., that Democratic Party members engaged in human trafficking and child sex (pedophilia) rings in restaurants around the US, one being a pizzeria in Washington, DC).	According to Chairman Ajit Pai, after the enactment of the 2017 Order, online users could still: post food pictures to Instagram, post photos of cute animals, shop for Christmas presents online, binge-watch television shows, be a part of fandom, drive memes right to the ground, and do everything else users enjoyed on the Internet.
Where Verizon stood on net neutrality.	Verizon sued the FCC to kill net neutrality in the past. Since the FCC lost that case, the FCC had to use the stronger Title II approach. All ISPs did not and do not support net neutrality. The FCC's NPRM (notice-of-proposed-rulemaking) explicitly asked for comments on the need for net neutrality. ----- The call to place net neutrality rules on a different 'legal footing' while removing the Title II public utility classification was incoherent. To advocate for net neutrality was to advocate for the classification of ISPs as Title II <i>common carriers</i> offering <i>telecommunication</i> services. When the FCC attempted to pass similar net neutrality rules under Title I classification, Verizon won a lawsuit that found net neutrality rules had to be implemented under Title II classification; thus, if BIAS was not governed under Title II classification, then net neutrality protections would be ineffectual. The 'legal footing' might be referring to the FCC exploring a legal clause that outlined a voluntary promise for ISPs to uphold net neutrality principles in ISPs' terms of service agreements. ----- Verizon was a monopoly that provided mass broadband networks across public lands that	Verizon Executive Vice President and Chief Administrative Legal and Public Policy Officer, Craig Silliman, argued: the FCC's NPRM was not an invitation to kill net neutrality rules nor were ISPs asking to kill the 2015 Open Internet Order rules. ----- The FCC wanted to put the Open Internet rules in an enforceable way on a different 'legal footing.' ----- The analogy to explain Title II public utility regulation: if homeowners prohibited people

connected to users' homes. To attribute ISPs to 'homeowners,' edge providers to 'the mailman,' and the FCC to 'the mayor' was inaccurate since Verizon did not operate private homes. The interconnected network of networks spanned its access across routers around the world based on the destination IP (Internet Protocol) address, TCP's (Transmission Control Protocol) ability to manage the sending and receiving of data packets, and end users' devices to reassemble the data packets to form the content. BIAS was a public resource and should be governed as a public utility.

(e.g., the mailman) from walking up their front walkways, the mayor could pass a rule so no one could prohibit people from doing so. However, the mayor would require all homeowners to give the mayor complete authority over all properties. Homeowners should not be satisfied with giving the mayor complete authority, even if the mayor promised to not exercise it. ISPs were not content with giving the FCC unbounded jurisdiction since the FCC could tell ISPs how to conduct their own services, user interaction protocols, and price controls. Under Chairman Ajit Pai's FCC, the public utility regulation would be removed and net neutrality rules would be put on a different 'legal footing' so they were still enforceable.

*Last Week
Tonight with
John Oliver.*

John Oliver gave the example of ISPs violating net neutrality principles when Verizon, AT&T, and T-Mobile blocked Google Wallet on their phone services to limit the competition of digital wallet mobile applications. ISPs favoured their own applications (e.g., T-Mobile's ISIS Mobile Wallet).

Chairman Ajit Pai claimed there were no negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) happening in the marketplace on a widespread level.

ISPs' terms of service agreements would be subject to change at any given moment.

Chairman Pai suggested that ISPs could write in their terms of service agreements to users that they voluntarily agree to not obstruct or slow access to content.

It was difficult to measure investment numbers. Francis Shammo, Verizon's Executive Vice President and CEO, said that Title II would not influence the way Verizon invested in its networks and platforms.

Chairman Pai argued that ISPs' infrastructure investments decreased because of the 2015 Order.

Trump's statement was the opposite for what net neutrality rules promised to uphold

Donald Trump said Obama's 2015 Order was a power grab and that net neutrality was the Fairness Doctrine and would target conservative media.

Oliver bought the URL <http://gofccyourself.com> to redirect users to leave comments on the FCC's 17-108 Restoring Internet Freedom Proceeding website by writing in support of net neutrality

<http://gofccyourself.com> was trending on Twitter. Many of the commenters used fake names, so all comments posted to the ECFS site should be discounted. The flooding of comments was not a 'grassroots' movement

rules backed by Title II oversight of ISPs. Some users claimed to have no knowledge of submitting identical anti-net neutrality comments, yet their names and house addresses appeared on the ECFS site. Spam bots may have submitted fraudulent comments. Oliver pleaded with viewers to not submit racist comments.

but a case of ‘astroturfing’ (i.e., organized activity that intended to create a false impression of a widespread movement, initiated and controlled by a concealed group or organization). Some of the comments submitted were vulgar, obscene, and racist.

Russian IP (Internet Protocol) and email addresses, bots, and stolen identities.

The FCC had no plans to remove fraudulent comments from the public docket. Names and addresses were stolen and publicly exposed without permission to file a political statement. Some fraudulent comments stemmed from dead people, stolen identities, batches of bogus filings, and commentary that originated from Russian e-mail and IP (Internet Protocol) addresses (alluding to cyber troops swaying public opinions). The number of fraudulent comments suggested a coordinated attempt to mislead the FCC and break federal law. New York’s AG and the FBI began a criminal investigation; identity theft in the FCC’s record was a federal crime under Title 18 and in many states. State and federal law enforcement officials should have used subpoenas, discovery requests, and grand juries to narrow down who was responsible. The FCC could have redacted private information from its server logs under FOIA requests.

The FCC did not respond to multiple requests to help with criminal investigations to narrow down who was responsible. The FCC refused to release its server logs under FOIA requests because of private information.

Out of 10,000 pro-net neutrality filers, 39% denied having submitted the comment. 1,000 identical comments from hacked accounts were being submitted every 10 minutes, as if bots were turning on and off.

450,000 identically worded comments were filed by an unidentified party. Some of the comments may have used information obtained from data breaches.

Comments about ‘unprecedented regulatory power’ was posted to the ECFS more than 818,000 times; surveys sent to 531,000 email accounts associated with the duplicated comment found 7,000 bounced back; of the 2,757 who responded to the email, 72% said their comment was falsely submitted.

57% of the comments utilized either duplicate email addresses or temporary email addresses created to be used for a short time. Identical individual names appeared thousands of times. 38% of all comments were made up of the top seven repeated comments, 44% of all comments were made up of the top 10 repeated comments, and 57% of all comments

were made up of the top 30 repeated comments. Of the (at the time) 21.7 million comments posted, 6% were unique, 39% appeared between two–100,000 times, 17% appeared 100,000–500,000 times, and 38% appeared more than 500,000 times. On nine different occasions, more than 75,000 comments were submitted at the same time with identical or highly similar comments, where three of these occasions featured variations of both pro and anti-net neutrality messages. There were five separate occasions when the exact same comment was submitted more than 24,000 times at precisely the same moment.

Questioning ECFS procedures, purposes, and impacts.

The adverse effects of fraudulent pro and anti-net neutrality comments began seeping into other dockets from misfiles. The FCC should notify everyone who had been impacted, remove the fraudulent comments, release any information on who filed them, and call for an investigation, citing laws against making false statements. Even though most of the comments were not useful in fashioning legal and factual findings, they informed the decision-makers on how people valued and used the Web. The ECFS did not exist as a pool to tally public *yea* and *nay* votes. Apparent civic infrastructure for accepting public comment in the rulemaking process was not built for the digital age. The FCC’s ECFS site should display a note informing filers that submission constitutes the filer’s certification under penalty of perjury that the filer is authorized to submit the material on behalf of the named commenter.

Congress, Ranking Committee, and Subcommittee Members’ questions directed to Chairman Ajit Pai: what public process did the FCC use to consider how to manage the novel docket size, especially with so many fraudulent filings, and were FCC staff given guidelines and internal legal analysis to follow? What analysis did the FCC conduct to consider which comments were devoid of substance or non-substantive and what guidelines were given to staff? Why did the FCC decide not to cooperate with the New York AG’s criminal investigation and what was the internal communication and legal analysis that supported this decision? How many FCC staff hours (including overtime

The ECFS site did not have a counting procedure where one observed which side placed more comments in the record and determined a winner. Arguments that would be impactful in shaping FCC decision-making were factual arguments and data that had sound legal backing, or new empirical data or analysis of data that raised methodological concerns about other analyses of data. The FCC would find about 20 or 30 comments to be useful.

Chairman Pai’s answers, and some material referenced to support his answers, to some of the questions: the FCC could have proceeded with a declaratory ruling by saying that what the previous FCC did was null and void as a matter of law and move ahead; the NPRM (notice-of-proposed-rulemaking) process prescribed by the Administrative Procedure Act was used. The FCC had a full 90 days of public comments in addition to the three weeks before the FCC’s vote to allow for robust public comments. Once the public comment period closed, the FCC would take stock with the staff and figure out whether and how the FCC should move ahead. The FCC would be guided by the principles of

hours) were devoted to review the record by a set date and how much of the FCC's budget was spent to compensate staff? How would the FCC consider and weigh publicly concerned voices?

substantial evidence by the D.C. Circuit, by the facts that were in the record, and by the motivation to figure out public interest. The FCC would not delay the hearing to investigate reports of mass fraudulent comments. Instead of focusing on automated or form submissions, the FCC prioritized consideration of substantive comments on the legal and policy consequences of its actions, following a court substantial evidence standard. There was no legal obligation to adopt an identity-verification procedure. Fraudulent comments were kept in the record because the FCC did not want to hinder full and robust public participation by encouraging collateral wrangling over the truthfulness of the parties' statements. Identical or nearly-identical non-substantive comments that merely conveyed support or opposition did not impede the FCC's ability to identify or respond to material issues. The U.S. Court of Appeals for the DC Circuit reaffirmed that the FCC abided by the Administrative Procedure Act, including by having substantial evidence for its decision.

New York Times Co. v. FCC (2018) outcome.

The court denied the *Times*' motion to receive reasonable attorneys' fees and other litigation costs. The court granted the *Times*' motion to receive its requested records of IP addresses and User-Agent headers from the FCC's ECFS site. The court found that disclosing the originating IP addresses and User-Agent headers to the public would clarify whether and to what extent fraudulent activity interfered with the comment process and the extent to which administrative rulemaking may be vulnerable to corruption.

The court found that every commenter was provided with a privacy notice, indicating that all information submitted, including names and addresses, will be publicly available via the Web, so there was no substantial risk to privacy violations. The FCC's statements about IP addresses and other digital identifiers being reliably linked to individual persons to create detailed profiles fell short. The matching and sorting process that pulled only the relevant material from the API proxy server log was closer to an automated search for responsive records than a scavenger hunt for disparate information. Approximately 99% of comments filed were related to rulemaking No. 17-108, and so the risk of producing inaccurate information was insufficient.

Collier v. FCC (2017) outcome.

Kevin Collier sought records surrounding the alleged DDoS attack against the FCC's ECFS site, and sought records surrounding the FCC's analysis of astroturfed anti-net neutrality comments. The case was dismissed with prejudice on January 8, 2019.

The FCC granted expedited processing for each request on urgency to inform the public about an actual or alleged federal government activity as to consider whether the FCC was taking appropriate steps to account for public input into its rulemaking. But the FCC provided no response to the requests, so the request was constructively denied. The FCC constructively denied a second DDoS FOIA request since the FCC indicated that it did not interpret Collier's initial DDoS request to

include documents relating to the alleged breach itself.

Note. The phrase “*No direct response*” is indicated for net neutrality advocates or opponents who did not have a direct response to an issue raised by the other side.

Table H4

Chapter 6 Summary Table

Issue	Net Neutrality Advocates	Net Neutrality Opponents
<i>Prechtel v. FCC</i> (2018) outcome.	The court granted Jason Prechtel’s motion for summary judgment on the email addresses used to submit .CSV (comma-separated values) organized into database rows and columns) files. Prechtel did not serve the General Services Administration (GSA) until after briefing had commenced; even though the GSA joined the FCC’s motion for summary judgement, it did not provide an affidavit or declaration explaining its response to Prechtel or its tension with the FCC’s response regarding API keys and attendant information. The court expected the GSA to provide a declaration detailing how it handled Prechtel’s FOIA request, so denied all motions on this matter.	The court granted the FCC’s motion for summary judgment on its withholding of certain privileged email (i.e., through complete withholdings or redactions) and its server logs. The FCC paid Prechtel’s attorney fees.
Monopoly theory.	Common carriage (a regulatory classification) did not relate to monopolies. Public utility (a legal classification) was based on state law from a franchise by government to the entity. The 2015 Order was not based on a public utility law debate.	The 2015 Order promoted a public utility-style classification of outmoded regulations. Both public utilities and common carriage were associated with monopolies; therefore, there was no need for regulation if monopolies were destroyed.
Mutual exclusivity of Title I and Title II services.	Both services were mutually exclusive. The same ISP could provide both <i>telecommunications</i> and <i>information</i> services. The FCC refused to concede that an ISP provided a <i>telecommunication</i> service when it transmitted data from an edge provider. Transmission of data over the last mile of cable to a subscriber’s computer served as a conduit for the <i>information</i> services that were already assembled by ISPs.	BIAS (broadband Internet access service) was an <i>information</i> service, which precludes it from being a <i>telecommunication</i> service. The <i>National Cable & Telecommunications Association v. Brand X Internet Services</i> (2005) case classified ISPs as offering <i>information</i> services. It was difficult to separate both services since ISPs were vertically integrated providers of content and Internet access. The word <i>offering</i> meant a ‘stand-alone offering’ of telecommunications, where messages were transmitted unadulterated by computer processing. The FCC could classify services as integrated ‘finished’ services such as ‘Internet access’ rather than on ‘discrete components’ of each service; therefore, online users utilized the transmission component in connection with <i>information</i> -processing provided by Internet

		access to the Web. The 2015 Order treated BIAS as an offering of a pure transmission service, not both a transmission service and <i>information</i> service. The FCC treated DNS (Domain Name System -- i.e., matching names to numbers of a website) and caching (i.e., the storing of data to load future requests faster and reduce latency) as criteria for classifying BIAS as an <i>information</i> service. Without DNS, a user would be unable to access a site by typing its name, and caching stored third-party content (information) on local servers.
Why were telephony and BIAS not both governed under Title II classification?	Mobile voice service was not a <i>telecommunication</i> service, according to the 2017 Order. Users could not make a phone call without a phone running compatible software. Both smartphones and tablets could make voice calls. One could retrieve and share information over the telephone.	Mobile broadband could be used for both smartphones and tablets. An <i>information</i> service always and necessarily acts on the information.
User expectations.	Polling 50,000 user complaints could help address expectations about Internet service classifications.	50,000 complaints would be too small a sample to infer millions upon millions of user expectations.
The FCC's regulatory power status.	ISPs had faith in the FCC's power to regulate through means other than through regulatory power from classifying BIAS under Title II.	The FCC perceived its hands to be tied after classifying BIAS as a Title I service.
Anticipated consequences after adopting the 2017 Order.	FCC Chairman Ajit Pai would drive up prices for Internet access, give the authority to ISPs to block, throttle, and prioritize sites that did not match ISPs' political perspectives, and stifle innovation by suppressing competition. U.S. consumer markets had become increasingly monopolized, limiting choices for consumers. Dominant market control by four or less corporations or corporate consolidations were pursued for power.	<i>No direct response.</i>
Antitrust law history.	The first antitrust law was created in 1890 when Senator John Sherman responded to the outrage over the sheer economic and political power of the <i>trusts</i> . President Theodore Roosevelt argued to allow some concentration of industries where there were economic efficiencies due to large scale and have experts regulate, whereas Presidential Candidate Woodrow Wilson argued that regulation would be ineffective and that all monopolies should be broken up. Information and ideas were the most valuable forms of property and the concentration on scale in the <i>high-tech</i> industry was evidence of a decline in competition. High-tech's patents, standard	Solicitor General Robert Bork argued that antitrust legal intervention raised prices by protecting weak enterprises from competition. Competition should be defended, not individual enterprises. Mergers and large corporate size created market efficiencies that brought down prices and should be legal. Vertical corporate growth through mergers and expanding market sector shares and giving users options through price discrimination would foster consumer welfare.

platforms, lawyers, and lobbyists created barriers to new entrants.

Antitrust laws. Antitrust laws were not designed to protect free speech. What would a court have to do to determine that the FCC's antitrust analysis was insufficient?

The rule of reason would allow a balancing of pro-competitive benefits and anti-competitive harms. The case-by-case nature of antitrust would allow for the regulatory humility needed when dealing with the dynamic Internet. The antitrust laws focused on protecting competition. The same long-practiced and well-understood laws applied to all Internet actors.

The FTC's authoritative reach.

Certain entities and activities were exempted from Section 5 of the FTC Act's coverage. The FTC rarely issued prescriptive rules unless directed by Congress. The case-by-case adjudication process was inconsistent and lacked certainty. The FTC could only exercise its authority through litigation after negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) occurred; thus, a start-up or sole proprietor would have to wait a long time to see a legal decision rendered. Consumer harms were unlikely to reach the FTC since consumer injury must be substantial to make a claim under the FTC Act. FTC regulatory overreach had been exercised in the past. Disclosures by ISPs in their terms of service agreements was no remedy if there was no place to seek relief.

The FTC has authority to oversee the trade practices of entities across numerous market sectors under Section 5 of the FTC Act, which prohibited unfair methods of competition and unfair and deceptive trade practices. The FTC examined factual circumstances on a case-by-case basis against alleged violators of Section 5. The FTC had extensive experience overseeing data security and privacy practices across numerous sectors.

The FTC sued AT&T in October 2014 alleging that AT&T promised unlimited data to wireless users and then throttled its speeds. The FTC argued for an 'activity-based reading' of the common carrier exception, which would allow the FTC to regulate any non-common carrier service, even when it was offered by a company that was otherwise a common carrier. Consumer advocacy groups in 2017 urged Chairman Ajit Pai to delay the 2017 Order hearing vote until this case was finished. If AT&T failed at the Supreme Court, the FTC's lawsuit would continue, but the case would have no impact on other ISPs since its VoIP phone systems had not been classified as a common carrier service.

AT&T argued that the FTC had no jurisdiction since it lacked authority to regulate common carriers, and AT&T was deemed a common carrier for its mobile and landline voice services in 2014 (i.e., even though its BIAS was classified under Title I in 2014, AT&T relied on its voice service classification under Title II to elude FTC regulation). AT&T argued for a 'status-based reading' of the common carrier exception; a common carrier company could be absolved from any FTC-punishment even when it offered non-common carrier services. Chairman Pai refused to delay the 2017 Order hearing until this case was settled.

The FCC's lack of authority post-2017 Order.

Since BIAS was classified as an *information* service, the FCC's 2017 Draft Order relinquished the FCC's own authority to impose any conduct rules on ISPs. The FCC disavowed Title II authority over ISPs, so the

No direct response.

FCC's pre-emption order could only be rooted in Title I ancillary authority, which must be based on some separate statutorily mandated responsibility. The FCC could not thereafter assert that it had a policy goal of removing regulations and laws for something over which it had no authority. Thus, the FCC precluded itself from pre-empting state and local broadband access bills.

Statewide broadband access bills & grounds for federal pre-emption.

The FCC needed express authorization by Congress to pre-empt state authority, and it was dictating what states could do in an area where it said it has no authority itself. The court should not underestimate the burden on states of having enacted laws invalidated.

The court should wait until a specific state law is pre-empted before a court review could commence.

The *impossibility exception* (i.e., whether it was impossible for state regulations and the FCC decision that it cannot regulate to coexist) applied when the FCC took affirmative action, not when it said it lacked authority. The FCC did not provide adequate notice of its intent to pre-empt and the basis for its pre-emption, so the public lacked a full understanding. The *impossibility exception* is a fact-intensive determination that would allow the FCC to exercise narrow pre-emption authority of state laws and regulations that governed activities that were purely interstate or impossible to separate from intrastate activities. The *impossibility exception* would not apply when an ISP could determine that the start and end points of BIAS occurred only within a state, making it possible to separate the interstate and intrastate aspects of the service.

According to the U.S. Supreme Court, the FCC may pre-empt state law under the *impossibility exception* when it was impossible or impracticable to regulate the intrastate aspects of a service without affecting interstate communications and if the Commission determined that such state regulation would interfere with federal regulatory objectives. Both conditions were met because state and local regulation of BIAS would interfere with the balanced federal regulatory scheme the FCC adopted in the 2017 Order. Internet access was a jurisdictionally interstate service since a substantial portion of Internet traffic involved accessing interstate or foreign websites and that the FCC recognized BIAS as an interstate *information* service in its *Cable Modem Order* and in the *Wireless Broadband Internet Access Order*. In the 2015 Order, the FCC reclassified BIAS as a *telecommunication* service while recognizing that BIAS was jurisdictionally interstate for regulatory purposes. It was impossible or impracticable for ISPs to distinguish between intrastate and interstate communications over the Internet or apply different rules in each circumstance.

47 U.S.C. § 152(b): Congressional denial of power to the FCC regarding charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier. The code prohibited FCC regulation on intrastate matters even when the intrastate

The FCC had independent authority (embraced by Congress) to displace state and local regulations and laws with federal policy of nonregulation for *information* services.

47 U.S.C. § 230(b)(2): it was the policy of the U.S. to preserve the vibrant and competitive

matters were done in connection with the interstate matters and when facilities were physically inseparable. The FCC's authority to regulate intrastate BIAS did not turn on whether the services were provided on a common carrier or non-common carrier basis.

The Telecommunications Act of 1996 provisions were subject to the substantive and interpretative limitations of Section 152(b) and should not be read to confer upon the FCC jurisdiction over intrastate activities unless the provisions were so unambiguous or straightforward so as to override the command of 47 U.S.C. § 152(b).

No direct response.

47 U.S.C. § 253(c) preserved state authority over *telecommunication* services.

The 2017 Order should be vacated and reversed. States should have the authority to judge how types of user disclosures could help regulate local businesses. States had policing powers to protect users from being cheated based on ignorance of material facts.

free market for the Internet, including any information service, unfettered by federal or state regulation.

47 U.S.C. § 153(51): it was forbidden for any *common-carriage* regulation, whether federal or state, of *information* services.

The FCC had a right to pre-empt state law related to ISP practices since the Telecommunications Act of 1996 constituted unambiguous command from Congress.

The FCC's pre-emption authority was found to have support from the forbearance provision found in 47 U.S.C. § 160(e). It would be incongruous if state and local regulation were pre-empted when the FCC decided to forbear from a provision that would otherwise apply, or if the FCC adopted a regulation and then forbears from it, but not pre-empt when it determined that a requirement did not apply in the first place.

47 U.S.C. § 253(c): (a) no state or local regulation and law may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate *telecommunication* service and (b) states can impose on a competitively neutral basis requirements necessary to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of *telecommunication* services, and safeguard the rights of users. The FCC could determine that a state or local government permitted or imposed any statute, regulation, or legal requirement that violated subsections (a) or (b) and pre-empt such requirement.

Allowing state and local laws could impede interstate communication since it would require a patchwork of separate and potentially conflicting requirements across different jurisdictions. If ISPs used overlapping physical transmission facilities to supply BIAS to users in each state, how could

47 U.S.C. § 1304: Congress encouraged and supported states to collect data about ISPs and their BIAS to compel regulatory disclosures by federally funding state studies on broadband infrastructure deployment.

it simultaneously comply with both laws if one state prohibited the prioritization of data traffic and a neighbouring state did not? Competing state laws would pose an undue burden on ISPs, which could inhibit broadband investment and deployment and would increase costs to users.

The State of California's net neutrality legislation.

California State Governor Jerry Brown signed into law the 'gold standard' for net neutrality. The 2017 Order allowed a handful of power brokers to dictate sources for information or the speed at which sites load. The state was not trying to control the entire Web; it was attempting to control how data packets were being delivered locally. When the federal government lacked authority to regulate, it could not pre-empt states from regulating. State and local governments could govern other terms and conditions of wireless service, including billing, termination of service arrangements, and the imposition of early termination fees, advertising, network outages, the use of devices while driving, zoning, and land use.

The DOJ filed a lawsuit to challenge the state's actions of unlawfully imposing burdens on the federal government's deregulatory approach to the Internet. States did not govern interstate commerce, according to the Constitution. The Justice Department had to spend valuable time and resources to file the suit. Because of its size and impact on the Internet market economy, the state dictated BIAS law for the nation. The state's net neutrality provisions would eclipse neighbouring jurisdictions, creating regulatory uncertainty and instability. If there was a precedent for the federal government to call for the deregulation of an interstate commerce issue, it could still prevent states from filling regulatory and jurisprudential gaps (e.g., Congress eliminated the Civil Aeronautics Board and its rules governing airfare prices and barred states from implementing its own regulations). For example, the FAA regulates the siting, lighting, and construction of transmitter towers and antennae, where tower siting and construction were subject to state and local zoning and federal statutes regarding environmental and historic preservation. The act countermanded federal rules by issuing net neutrality rules on ISPs, the same rules expressly repealed in the 2017 Order. The FCC's decision and the Communications Act of 1934 prohibited states from acting against jurisdictionally interstate services. Separate net neutrality requirements could impose significant business costs and result in increased litigation costs and enforcement risks. The future costs to comply with all regulations were unknown and changes to regulations, or their applicability, could result in higher operating and capital expenses or reduced revenues in the future.

No direct response.

The act was pre-empted under the Supremacy Clause of the U.S. Constitution. The act unduly burdened interstate commerce in violation of the Commerce Clause of the U.S. Constitution. Both clauses protected ISPs

Municipal efforts to preserve net neutrality.

75 U.S. mayors wrote a letter to Senate Majority, Senate Minority, House Minority, and Speaker of the House of Representatives leaders to support the Resolution of Disapproval of the 2017 Order. The 2017 Order would negatively impact middle and working-class families by restricting access to content and services to those who could not afford to pay more. 13,000 pages of net neutrality complaints filed by millions of citizens and hundreds of community organizations and local leaders were ignored by the FCC.

City of New York Mayor led a coalition of 28 municipalities in filing a brief against the FCC. The coalition urged the U.S. Court of Appeals for the DC Circuit to strike down the 2017 Order since it illegally stripped cities of tools needed to provide critical services, turned ISPs into gatekeepers of government websites, and restricted critical government functions (e.g., law enforcement and traffic management). The 2017 Order was unlawful since Congress did not authorize the FCC to give private ISP corporations licence to impair cities' ability to serve their residents reliably and promptly. ISPs could delay government services that relied on real-time transmissions of information to police, medics, firefighters, and emergency alerts, and the transmitting of local tax payments and public benefits registration and traffic management (e.g., parking enforcement and payment, navigation routes, and public transportation sensors). All citizens were entitled to a free Internet to learn, exercise their freedom of speech, and access essential government services.

from a patchwork of inconsistent regulations that were unduly burdensome and impossible to comply with as a practical matter. In the 2017 Order, the pre-emption provision pre-empted any state or local measures that would impose rules or requirements that the FCC repealed or decided to refrain from imposing or that would impose more stringent requirements for any aspect of broadband service, including any state laws that would require the disclosure of BIAS performance information, commercial terms, or network management practices inconsistent with the transparency rule adopted.

No direct response.

No direct response.

The importance of law to protect users and hold ISPs accountable.

A purely case-by-case approach would be unadministrable and would likely leave many negative effects of ISP harms (i.e., blocking, throttling, and paid prioritization of data) unaddressed. A set of bright-line rules would protect competition and consumer harms against blocking, throttling, and paid prioritization of data, coupled with a general conduct rule that could account for unusual circumstances; these measures would reduce administrative costs to the legal system. Law's effects depend upon the content of rules and precedents as applied by judges, juries, and lawyers. Rules that seek to embody every economic complexity and qualification may prove counter-productive by undercutting the very economic ends they seek to serve. Law can minimize false positives (i.e., falsely inferring the existence of a negative effect of ISP harms (i.e., blocking, throttling, and paid prioritization of data)) and false negatives (i.e., falsely inferring the absence of a negative effect of ISP harms).

Laws must be decided by Congress first, then policy questions could follow. The FCC had no legal authority in this realm. A *law layered approach*: institutions and actors that uphold antitrust and consumer protection laws included the FTC as lead agency to enforce laws and hold corporations to any promises made, the DOJ as an enforcer of antitrust laws, and state attorneys general and private litigators as legal checks to consumer harms. If Chairman Ajit Pai was able to enact the 2017 Order without legislation, an FTC-led approach, along with the DOJ, state attorneys general, and private litigators, would govern for the next 4–8 years, but then the next Democratic FCC would re-reclassify and re-interpret the 2017 Order's repeals. Without legislation or a U.S. Supreme Court decision, the debates were heading for limbo.

Note. The phrase “*No direct response*” is indicated for net neutrality advocates or opponents who did not have a direct response to an issue raised by the other side.