COOPTATION, COLLUSION AND CONTESTATIONS: DEVELOPMENT, REGULATION AND GLOBALIZATION OF THE INTERNET IN CHINA

LIANRUI JIA

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Abstract

This dissertation investigates the antithetical sets of developments between a nationally-controlled Chinese internet and its increasing commercial success. It asks the central question of how does the Chinese government reconcile its political goal of maintaining a sovereign internet with the goal of sustaining and fostering commercial success? To answer this question, this dissertation uses primary methods of textual and document analysis and examines a corpus of first-hand and secondary documents including laws, regulations, directives, company financial documents, and news reports.

This dissertation develops a tripartite model, outlining the role and interplay between three actors in sustaining China's tightly controlled yet commercially vibrant internet: the Chinese state, internet companies, and capital. It is argued that the Chinese state remains as a key institutional force in shaping domestic internet regulation, gatekeeping entry and conditions of participation of capital in the domestic market, and supervising and supporting domestic internet companies. The internet companies, on the other hand, are agentic and creative in working around restrictions on foreign investment while retaining managerial control and collaborating with various state-led projects. Foreign capital enters the picture, transforming Chinese internet companies into financiers, owners and stakeholders in emerging markets.

This dissertation therefore challenges the top-down view of the Chinese state in directing and controlling the internet. It shows that the Chinese state is highly adaptive in political control and economic policy-making. Censorship and control have always constituted part of the institutional conditions interwoven into the political economy of the Chinese internet. It also systematically analyzes the often-overlooked role of capital in the industrial development of the Chinese internet. Overall, this dissertation unpacks the

collusion and contestations between state, internet companies and capital, caught in between aspirations of building an explicitly nationalistic internet and the increasing need for global connections, flows of technologies, financial and human capital.

Dedication

In loving memory of my grandma, Sumei Liu.

Acknowledgments

Influenced and trained in the political economy of communication tradition, it is impossible for me to not think about the political economy of this dissertation. However difficult it is to sum the past six years in two pages, I nonetheless want to express my sincere gratitude to those who have contributed and influenced this dissertation.

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Introduction

China has achieved worldwide recognition for its success in rapidly building a modern communication network and in creating a far-reaching, multifaceted state-directed development model for the information and communication technology industry (Harwit, 2008; Schiller, 2008, 2014). In just over two decades, China has the biggest internet population in the world; its internet and telecommunications markets are enormous, to the degree that they constitute a strong pillar of growth for global political economy (Winseck, 2011; Schiller, 2014); it also actively participates in various global internet governance arenas, touting an alternative governance logic and agenda to counter U.S dominance.

Yet despite the booming market and increased connectivity, internet in China is among the world's most controlled. Employing and investing a vast amount of human and economic resources, the Chinese Communist Party is highly adaptive to changes and has done a fairly good job at curbing potentially mobilizing effects of the net that challenge the Party's ruling power. Mechanisms of control are in place, regulating internet access, content, and usage. Most notably, the market for online services and products is largely dominated by a handful of domestic internet companies, namely Baidu, Alibaba, and Tencent. Foreign businesses such as Google, Facebook, Uber, and Yahoo! have thus far proven unable to compete with domestic counterparts.

Such staggering and contradictory development of internet in China raises questions against liberal values ingrained and embodied in the technical design of the internet, like the end-to-end principles that maximize inter-networking ability and minimize control over information flow over the networks, and commonly held beliefs about free flow of information and trade. If, as many argued, free flow of information goes hand in hand with, and is conducive to free trade, how is China able to create a restrictive internet while

gradually opening up its market to free trade agreements and globalizing domestic internet companies? This dissertation examines this set of antithetical developments by focusing on the dynamics between state, market and capital.

Research Problem

This dissertation investigates tensions between economic growth and political control over Chinese internet development in the context of China's media globalization and reform. As China deepens its re-integration into global economy, especially with the country's accession to the World Trade Organization in 2001, influence of international trade law is formalized and institutionalized in domestic law and economic policy making (Zhang, 2001, p. 464). This brought tumultuous changes and reconfiguration of domestic media and telecommunications sectors in terms of regulation and market competition. The greater market opening not only creates demands for global connectivity and technological buildout of global communication infrastructure but also fosters domestic internet companies' global endeavors as they seek capital from overseas financial markets. The vibrant private sector has marked the internet development in China since its early commercial deployment. As a cultural form (Yang, 2012), an industrial sector, and productive forces (Hong & Harwit, 2020), the internet in China is increasingly interlinked with global networks, dynamics, and disjuncture.

It is under such social historical context that the central research question asks: how does the Chinese government reconcile its political goal of maintaining a sovereign internet with the goal of sustaining economic development and fostering commercial success for domestic internet companies? This question picks up two strands of inquiry that are left under-examined in the context of Chinese internet development: first, the contradictions and struggles between the *national* and the *global* that loom large in the evolution of commercial

Chinese media and internet development after the country accelerated its re-integration with transnational capitalism (Lee, 2003; Zhao, 2008); second, the *economic* implications of internet censorship and how control measures that are often perceived as political in nature also incur economic and trade issues, raising concerns over China's compliances to WTO trade agreement and influencing market norms and conditions (Wu, 2006; Jiang, 2015).

Given that China has joined the WTO and made a series of commitments regarding conditions of participation for foreign capital, foreign ownership and competition, and steered certain aspects of internet development in conformity to the Western models (e.g. safe harbor and self-regulatory efforts), to what degree do censorship and control deter the globalization of Chinese internet development? How is market rule[1] carefully and strategically catered in the context of nationalistic discourse and justifications to the end that prove profitable and preferable for both domestic private companies and the state?

In particular, this dissertation investigates the dynamics between the state and market in the globalization of Chinese internet. It regards the globalization as the dual processes of the opening up of the domestic market and the "going out" process of domestic companies. Originated as a set of government policy to promote Chinese investment abroad, I regard "going out" as the process of global expansion and outward development of domestic companies, either under the aegis of state or pressures of market competition. On the one hand, this dissertation considers, from the state's perspective, how the Chinese state rises up to the regulatory challenges brought by internet and globalization to enclose and secure the home market from substantive foreign participation and competition. It systematically analyzes the policy mechanisms, subsidies, domestic and international policy reforms, direct

[1] Market rule refers to rules or regulations pertaining to ownership, foreign entry, competitions, and anti-trust regulations.

investment measures and guidance that have been put in place. The key question addressed from the state's perspective is how regulators and government bodies (in some cases, co-opted with state-owned-enterprises) re-constituted and reconfigured themselves to pursue a nationalistic agenda (national control, national champions in domestic market) for internet development in a manner that avoided violation of the substantial trade commitment and obligations to international trade laws. On the other hand, this dissertation considers the internet in China as part and parcel of the primary axis in the expansion of trans-nationalizing capitalism. From this perspective, this dissertation systematically examines how the Chinese internet is closely annexed to global capitalism through key processes and aspects such as initial stock offerings, finance, company management, and market expansion. This addresses the going out aspect of domestic Chinese internet companies. To address how the domestic market reacts to the entrance of foreign competitors, this dissertation critically analyzes the history of Alphabet's operation in China from 2000 to 2018. Overall, this dissertation considers the state, internet companies, and capital as three formidable forces in shaping the globalization dynamics of the Chinese internet and captures the conflicts, constrictions, and compromises made in such processes.

In sum, the dissertation investigates and demonstrates the complex dynamics and power relationships between the state, capital and private internet companies in orchestrating, negotiating, and cooperating on internet development and globalization in China. It is premised on understanding internet censorship and control not as an end in and of itself, but as part and parcel of the state's vision for internet regulation and development in China. In so doing, it necessitates a conceptualization of the nation's long-standing traditions of media control as the *background* and draws more to the *foreground* the agency of domestic private internet companies and capital markets as important actors that shape the course of

development of the internet in China. These control mechanisms work together with other market rules and industrial policies to build up a unique internet market with heavy-handed regulation and huge commercial success for only a handful of market players.

This dissertation addresses the detailed processual aspects of how a strong state accommodates an active private sector-led commercial development of internet. By systematically explicating the role of transnational capital and its interwoven dynamics with Chinese state and internet companies, this dissertation fills the gap in the Chinese internet literature that tends to focus heavily on the role of state. As more non-Western countries join the global internet, the Chinese approach of building a highly controlled yet commercially vibrant internet development receives popularity as a powerful model in the increasingly balkanized and fragmented internet. As Schiller (2020) points out, China's success in reserving its own national market in communications is remarkable in its own right (p. 236). This dissertation analyzes how China has achieved such success through national policy and market regulation as well as inserting and participating in the expansion of transnational capital. In particular, this dissertation focuses on moments of conflicts and contradictions in balancing state interests in building a national communicative space and realizing capital's quest for profit and dissects how these contradictions are ingrained in the industry set up, domestic regulation, as well as the relationship between domestic market players and foreign company like Alphabet. To do so, this dissertation is grounded in the theoretical framework of political economy of communication.

Political Economy of Communication

To systematically unpack the relationship between capital, state and market in the development and globalization of the internet in China, this dissertation builds on the theoretical traditions of critical political economy of communication and related work on the

dynamism between capital and technology development. This section reviews the central themes in these literatures and sets out the theoretical foundation of this dissertation.

Critical media scholar Vincent Mosco (2009) defines political economy as the study of "social relations, particularly the power relations, that mutually constitute the production, distribution, and consumption of resources" (p. 2). Simply put, political economy is the study of control and survival in social life, examining the organization and management of society over time and the production and reproduction of everyday life. For political economy of *communication*, it entails the axiomatic study of market structure, ownership patterns, key players' strategies, trajectory of media development (Winseck, 2011), as these aspects directly concern the access, control, production, distribution, and consumption of media. The basic assumption is that information and culture are public goods and their idiosyncrasies are contradictory to market and commercial logics (Babe, 1995; Garnham, 1979; Mosco, 2009; McChesney, 2013; Smythe, 1977; Winseck, 2011). These "irresolvable contradictions", writes Garnham (1995), stem from the fundamental contradiction between economics and politics at level of their value system (p. 66). How do we attach a price tag (exchange value) on a piece of information (use value)? Viewed from the perspective of political economy of communication, the answer is always critical, historical, and context-specific.

Because communication and media carry important socioeconomic, ideological, and political functions, such as cultivating markets and educating consumers through advertising (Smythe, 1981), propagating political ideologies and consciousness that serve the dominant ruler of a certain society (Schiller, 1969; Murdock and Golding, 1973), or as a realm through which geopolitical expansion of power is carried out (Powers & Jablonski, 2015; Schiller, 1969; Winseck & Pike, 2007), scholars of political economy of communication and media treat the question of power of paramount importance and always question the 'who', 'why', and 'how'

in the allocation of critical and scarce communication resources. Focusing on the role of the state, social institutions, media organizations and labor, political economy of communication and media scholars lead historically specific inquiries about the modalities of cultural production in a given society. Three main concerns are central to critical political economy of communication: media ownership, concentration of ownership and corporate dominance through business strategies driven by the imperative of profits and commodity exchange (Hesmondhalgh, 2010; Hardy, 2010). These are questions of paramount social significance because how communications are organized and financed will not only impact the type of content that is produced, used, and consumed, but also shape the broader structure of society.

Political economy of communication opposes the technological deterministic view of technology and asserts that technology is not an autonomous, stand-alone formation and politics is always in command in the process of deciding what is to be produced, for whom, and how (Mosco, 2004; Smythe, 1977, 1994). In unpacking and questioning the power relations and struggles enmeshed within communications systems and media industries, political economy of media and communication research highlights social totality, arguing that media must be studied in relation to their place within the broader economic and social context (Winseck, 2012, p. 4; Mosco, 2009). With the fixation on power, political economy essentially concerns questions of agency and potential to change, and the scholar's role in using academic research and knowledge creation as a form of activism and social praxis (Mosco, 2009).

Institutional Political Economy of Communication

Political economy of media and communication is by no means a unifying approach. The field of political economy of communication encompasses various schools of thought. The institutional political economy of communication approach is distinguished by its

emphasis on the three-way interaction between technology, markets and the state (Winseck, 2016). The institutional view first recognizes power concentrated within bureaucratic structures, such as government agencies, organizations and corporations. The state remains fundamental in shaping the precondition of economics and as a supporter of national media organizations in the international arena (Fitzgerald, 2012; Murdock, 1978). Media corporations, following their organizational logics, are also institutional formations in allocating communicative resources within a particular market setting. More specifically, media companies are always locked into the wider economic situation in two ways: first through advertising, and secondly, through reciprocal investments, shareholdings, and interlocking directorships with other large industrial organizations (Murdock & Golding, 1973).

Viewed historically, with the succession of different information and communication technologies, communications are closely knitted with the history of capitalism. In particular, finance capital and communication form a tight nexus within the lifecycle of a particular set of communication technologies: as information and network technologies upgrade infrastructure, revamp modes of production, consumption and distribution, and create new markets (Perez, 2002). As Perez (2009) notes, technological innovation is swiftly followed by financial innovation, as finance rapidly invents, learns and diffuses new ways of providing venture capital, of attracting new investors and new capital to the market and of leverage, handling, hedging and spreading risk (p. 781). Under the concept of digital capitalism, in which communication and information is foregrounded as an emerging pivot of the ever-mutating capitalist political economy, Schiller (2014) highlights information and communications integration into capitalism by providing infrastructure and services central and indispensable to the finance sector (p. 44).

The internet transformed from educational institutions- and government-sponsored military invention (Abbate, 1999) to an increasingly commercialized space shaped by monopoly capitalism (Foster & McChesney, 2011), with power concentrated in the hands of a small number of corporations and institutional investors. The emergence of "platform capitalism", which describes capitalism's turn to data to maintain economic growth and vitality in the face of a sluggish production sector, with behemoth internet companies at the helm, is said to make the city smarter, the future more secure and equal, and to reinvent capitalism (Srnicek, 2016). The commercial deployment of internet led by a few giant internet companies epitomizes the process of spatialization (Mosco, 2009), where corporate power has extended its base into the institutions of communications industries, through concentration by horizontal and vertical integration, and the globally-sourced and organized production and distribution processes. At the same time, capitalism penetrates the communications sector by forming interlocking relationships between corporate elites and networks through interlinking membership on boards of directors.

Sitting on the pillars of Joseph Schumpeter's thinking, the institutional school of political economy differs radically from other views in its treatment of technological innovation, its relationship with capitalist economy, and its emphasis on the disturbance of equilibrium instead of equilibrium. For Schumpeter, the emergence of innovation is a social process as "technologies interconnect and tend to appear in the neighborhood of other innovations", and whether a technological innovation will win out is based on what is commercially profitable (through investment and funding decisions) and socially acceptable (path-dependency) in a given society and in the space of what technology has made possible. Instead of price and market, Schumpeter sees technological innovation as the motor of competition in capitalist economies. The process of creative destruction, propelled by

technological innovation and economic forces, tends to destroy social frameworks from within and create new frameworks with greater growth potentials. Thus, creative destruction brings mega profits and prosperity, as well as depression, as technological innovations open new markets and attract new rivals. In sum, Schumpeter lends much credit to technological innovation- an exogenous factor outside the economic realm of action, in driving and inhibiting market competition (creation of new market and monopoly). Schumpeter's theory portrays a historical and dynamic picture of capitalist economy as an evolutionary process animated, reorganized, reconstituted by evolution of technology.

Inspired by Schumpeterian political economy, Carlota Perez's theory bridges the evolution of technical changes with financial capital - a connection which is often neglected and ignored by economists who study finance and scholars who study technical changes. Perez (2002) defines a technological *revolution* based on two standards. First, technological revolution often engages strong interconnectedness and interdependence of the participating systems in their technologies and markets. This means that technological revolution encompasses all-cross-the-board innovations triggered by a core innovation. For example, the industrial revolution (from 1771) was triggered by the mechanized cotton industry and wrought iron machinery; the age of oil (from 1908) was made possible with the mass-produced automobiles, internal combustion engine and cheap oil and oil fuels, and the age of information and telecommunication (from 1971) was triggered by cheap microelectronics, such as computers, software and telecommunication control instruments (Perez, 2002). Secondly, technological revolution is significant in its capacity to transform profoundly the rest of the economy.

Perez (2002) argues that financial capital animates technical change in three different stages: financial capital first supports technical revolution; it then contributes to the

deepening of the revolution to the point of a possible crash; it later contributes to the deployment and dissemination of technical changes to wider society before it helps give birth to the next. Although Perez did not explicitly incorporate Schumpeter's concept of creative destruction, her analysis portrays a version of how the process of creative destruction unfolds in different stages of capitalist economy. And much like Schumpeter, she does not fixate her analysis on specific momentum but rather casts a long gaze over the course of technical changes and the role of financial capital.

As Perez makes explicit the two-way relationship between financial investments and technical changes, she never considers changes in these two realms alone. Perez's model conceives of technological revolution as a constellation between older and newer generations of technical innovations. With each technological revolution, there emerges a new *techno-economic paradigm*, a best practice model for the most effective use of the new technologies within and beyond the new industries. This paradigm encompasses the hard, soft and ideological tools that guide entrepreneurs, managers, innovators, investors and consumers, both in their individual decisions and in their interactions, for the whole period of propagation of that set of technologies (Perez, p. 9). The establishment of a techno-economic paradigm is a learning and unlearning process and often conflicts with the older paradigm and suffers delay in overcoming forces of inertia.

Carlota Perez offers important insights into the rhythmic interaction between financial capital, the propagation of technologies and the formation and solidification of techno-social paradigms that come to define a society. She argues that historically, financial capital has always animated technical changes from an initial financial frenzy to the formation of a possible crash, to a wider dissemination and distribution of the technology to the society (Perez, 2002). As a developmental economist, Perez positions technology as the centre of the

analysis. As the basic premise underpinning her theory, she conceives the techno-economic and socio-institutional spheres as analytically distinct, the coupling and decoupling between which will affect the path and pace of development of a technological system. Although Perez recognizes how social environments can act as a powerful selection mechanism as they sometimes create frictions and resistance to an emerging innovation, she largely sees social, institutional and political changes as *induced* by innovations- in a sense, as effects of changes in techno-economic sphere. Written in the context of capitalist economies, such conceptualization cannot fully capture the dynamics in the case of China, for example, where the state exerts strong influence and sometimes intervenes and meddles with the flow of (domestic and foreign) capital, staging market competition and handpicking market winners. This gap can be addressed by the pioneering works by critical political economy of communications scholars, which focus on the transformations and interplay between media companies, national economy and capitalism.

Critical Political Economy of Communication and Financialization

Similar to Schumpeterian political economy, the digital capitalism school, epitomized by Dan Schiller, argues that "computer networks link with existing capitalism to massively broaden the effective reach of the marketplace" (Schiller, 2000). Information and communication technologies (ICT) not only accelerate the speed of information transmission, thereby bringing forth financial and capital innovations, but also serve as the base where capital seeks renewed growth. Contrary to Schumpeter, technology does not only destabilize market equilibrium but also expands the commodification process and contributes to the concentration and centralization of market competition (Fitzgerald & Winseck, 2018). The digital capitalism school is skeptical of the promises of the internet and critiques the way that the internet is gradually colonized by the market system and saturated with consumerism, all

of which exacerbate inequality and have prolonged economic crisis since 2008 (Schiller, 2014). Meanwhile, it pays attention to how radical social (such as economic liberalization and neoliberalism) and technological changes (the build out of telecommunications infrastructures and technical capacities) pave the conditions for the arrival of digital capitalism.

The digital capitalism school provides a useful framework to understand China's rise as a digital power as the country has become one of the world's largest markets for ICT in a short span of two decades. This process is both preconditioned and enabled with both infrastructural and technical capacity building on one hand and social-political changes on the other. The digital capitalism school probes the very processes by which information and communication technologies are transformed and subsumed within the market system within the context of China and at the constitutive role such sector plays in China's political economy. Furthermore, it tackles how transnational capitalism expresses and transforms China's internet development as part of the ongoing globalization process.

The idea that the industrialization of media through the introduction of new media technology and mass production and consumption requires greater financial underpinning is well presented by both critical and mainstream political economy scholars (Almiron & Segovia, 2012; Fitzgerald, 2012; Murdock & Golding, 1973; Winseck, 2011). The mass production and consumption of media demands greater financial support in its expansion and the technological sophistication attracts capital into each medium (Murdock and Golding, 1973). Therefore, the transformation and development of media companies is always embedded in and mutually constituted by the historical transformation of capitalism. One important historical transformation that sweeps the capitalist economy is financialization. Although the specific definitions vary, financialization in large part denotes the extraordinary growth of the

financial sector and financial assets relative to the industrial and other sectors of the economy over the past three decades (Fitzgerald, 2012). Financial sectors have come to play a dominant part relative to the economy as a whole by gobbling up and controlling larger amounts of capital than either governments or nonfinancial corporations (Davis, 2011). Through shareholdings and appointment of boards of directors, financial interest wields structural power in allocating corporate policies and resources. It brings about a tight hierarchical relationship between industrial capital and banking capital, elevating the latter while diminishing the former (Duménil & Lévy, 2004).

Media and communications industries are not immune to the financialization of the economy. Tracing the transformations of ownership of media, the centrality of financial institutions increases in communications industries through investment and management control (Miège, 2011; Noam, 2009). With financial institutions clawing into the command chain of communication, companies are taking on debts to merge or acquire others to achieve cost reduction and economies of scale and scope, with the ultimate goal to achieve and maintain a higher level of return. According to Winseck (2011), the telecoms, internet, and media industries were swept up in, and on the cutting edge of the financialization of the Anglo-European economies in the 1990s and at the turn-of-the-21st century. A key characteristic of this process was a sharp spike in the number and value of mergers and acquisitions that swept the telecoms and media sectors from 1996 to 2000 (Winseck, 2011, p. 150). These merger and acquisitions created huge media conglomerates and siphoned off profits into the financial market, which further hastened the financialization processes.

Engulfed in a financialized logic, media and communications companies are facing heightened levels of competition and undergo significant transformations as profit-seeking businesses. The need for capital investment to expand thus generates intense competition

between units within media companies and between different media groups as they now not only compete with each other but also with other companies in the capital markets (Fitzgerald, 2012). The detrimental effect of financialization is that media companies are increasingly managed as a portfolio of assets and decisions are often based on financial calculations, therefore generating huge inequalities between board members and employees and precarious labor conditions (Almiron, 2013). These effects are not only unique to Anglo-European nations but are evident in emerging economics as well, such as China (Fuchs, 2016; Xia, 2018; Xia & Fuchs, 2016; Chen & Qiu, 2019). Through historical examinations of how media corporations develop in conjunction with larger dynamics of capitalism, Scott Fitzgerald (2012) argues that what is historically significant is the extension of a unified and ubiquitous capitalist basis to the field of communications (p. 31).

Synthesis: Theoretical Foundations

In sum, political economy of communications, together with Perez's theory on technology and finance capital distill key insights as the theoretical underpinnings of this dissertation. They stress the interplay between enduring institutional forces and path dependency in the shaping of media and communications sectors. Enduring national institutions, consisting of distinct structural and architectural and cultural configurations, manifested in the specific labor, business and finance relations, moderate and mediate the specific moments of global capitalist relations (...) and manifest variations (Fitzgerald, 2012, pp. 94-95). On the other hand, the development of communication technology over time animates and is animated by existing social conditions and deeply embedded in the larger economy. The interplay between the capitalist economy, market, and nation state configures the power relations and arrangement that dictates the uses and appropriations of information and communications technologies in a given society and at a given historical moment.

In the case of China, the presence of a strong and capable state is seen as one of the reasons why it has achieved quick buildup of a modern telecommunications system (Harwit, 2008). As illustrated in the chapters that follow, China's internet is among the world's most controlled, yet political censorship and control over flow of information, which is said to be detrimental to business and trade according to libertarians and free trade advocates, co-exists with a vibrant private internet sector with a growing user base, market capitalization and global reach. Such contradictory co-development between stringent political control and vibrant commercial internet economy calls upon a more advanced understanding of both the *politics* and the *economy* of the Chinese internet. The political economy of communications offers a useful framework in critically engaging with both these aspects.

Methodology and Data

Informed by the political economy of communication, this dissertation draws on multiple research methods, including document analysis and interviews. This dissertation is informed by an extensive compiled dataset that incorporates a wide range of primary documents from various ministries and organizations of the Chinese government: regulations, rules, policy directives from the State Council, Five-year Plan (五年计划), Cyberspace Administrative Commission (CAC), and reports and statistics from the China Internet Network Information Center (CNNIC). To study Chinese internet companies as well as Alphabet, primary documents include company media releases, filings with Chinese government, licensing documents, filings with the United States Securities and Exchange Commission (SEC), Hong Kong Securities and Futures Commission (SFC), and company annual reports. These documents provide detailed information on corporate visions, objectives, ownership structure, governance, competitors, risks, shareholders, financial statistics and mergers and acquisitions activities. The analysis follows a process of "burrowing

down." This technique was developed by the political economy scholar of the film industry, Thomas Guback, to read through the fine print and gather empirical data based on the bureaucratic "paper trail" (Corrigan, 2018, p. 2757) left by internet companies in annual reports, stock exchange filings, congressional testimony and legal proceedings.

To further triangulate and extrapolate company data, industry reports, journalistic works, analysis from think tanks and research institutes, articles from trade and technology journals and professional databases such as Bloomberg and iResearch are incorporated. Policy documents from foreign governments provide key insights into the globalization of Chinese internet companies and its geopolitics, such as the United States Trade Representative (USTR), United States-China Economic and Security Review Commission, and the Committee on Foreign Investment in the United States (CIFUS). Historical and contemporary news reports from Chinese and English newspapers are incorporated to provide media framing and portrayal of events, such as *China Daily*, *People's Daily*, *Global Times*, *South China Morning Post*, *New York Times*, *Washington Post*, the *Wall Street Journal*, *Financial Times* and *Bloomberg*. Use of multiple sources helps make explicit and construct, from the ground up, an empirical portrayal of the operation, expansion and globalization of Chinese internet companies.

To complement document analysis, this dissertation employs semi-structured, anonymized interviews to garner opinions from practitioners, regulators, experts, and scholars. The interviews were conducted during summers of 2016 and 2017 in different locales: Beijing, Shanghai, and through Skype. Interviewees provided both background information and offered key insights of individual experience and reflections of researching or working in the industry. However, given the business culture and the binding effect of non-disclosure-agreements of interviewed Chinese internet companies, information obtained through

interviews largely complements and reaffirms what has been made public in news media and in online discussions. Nonetheless, the sharing of personal experiences and insights provide contextual understanding of the evolution of the internet industry in China. Therefore, information obtained through interviews and fieldtrips is not directly cited in this dissertation but it offers critical contextualization and informed the general understanding of the zeitgeist of internet cultures in China, especially centered on the themes of commercialization and financialization.

The time period covered by the analysis is from late 1980s to 2019. As China sent its first email to the Karlsruhe Institute for Technology in Germany in 1987 and established the country's permanent connection to the global internet in 1994, literature on the Chinese internet originated around 1980s. This dissertation primarily relies on academic literatures, news coverage and industry data published in the English language and complemented by policy documents and news coverage in Mandarin. While there is a large body of Chinese language scholarly literature, it is hard to gain access without a library account issued by an academic institution based in China. There are, however, several open access Chinese language scholarly journal articles cited in this dissertation. The selection of literature is made based on relevance to the topic and with the attempt to incorporate a diverse range of theoretical positions, as many Chinese media scholars have warned against the de-contextualized application of Western theories in studying internet in China (for example, Zhao, 2008; Meng, 2010).

Key Concepts

Key concepts employed in this dissertation require clarification, such as the Chinese state, public vs. private companies and internet company. Various literatures have explicated the non-monolithic nature of the Chinese state (Austin, 2014). For a country as vast as China,

there are huge variations between different regions in their internet development and policies, as well as infrastructural reach and density. Provincial governments, for instance, hold significant power in executing central government's order and policy directives. This dissertation recognizes such complexity and dynamism in the conceptualization of the Chinese state and its non-monolithic nature.

This dissertation also unravels and challenges the clear-cut distinction between public and private companies in the Chinese context. One way to determine whether a company is privately owned or public is by looking at the ownership structure. However, in studying Chinese firms, the ownership structure reveals little about the degree of control of the Chinese state. The absence of any branches of the Chinese state in the equity ownership of privately owned Chinese internet companies does not mean that the Chinese state exerts no control over these companies. Chinese Communist Party membership of the founding figures of these companies is a factor to consider. For example, Alibaba's founder Ma Yun and Tencent's Ma Huateng, are members of local party-state organizations such as People's Congress and People's Political Consultative Conference. The interlocking of Party membership and corporate elites in the internet sector means alignment of power between political elite and the capitalist class in reconfiguring the transnational class relations as manifested in China (Shen, 2017). Other means for the Chinese state to exert influence is the practice of prodding or forcing private firms to participate in state-led industry-restructuring efforts (Milhaupt & Zheng, 2015). An example for this is Alibaba and Tencent's shareholding of China Unicom, a state-owned telecommunication operator, as a recent move of the Chinese government to introduce various forms of capital into state-owned enterprise reform. The establishment of an in-house Communist Party of China unit (Yuan, 2017) and the creation of special management shares, which would represent a stake of as little as 1 percent in an online

media business but give government officials a seat on the board of directors and control over media content by the State Administration of Press, Publication, Radio, Film and Television (SAPPRFT) are mechanisms that complicate the degree of autonomy of privately-owned Chinese internet companies. Therefore, in this dissertation, "private company" refers to companies that are owned predominantly by private individuals, institutional investors and other financial and media corporations.

The insertion and enactment of control by the Chinese state not only complicates a simple binary between public and private ownership, it also denies a clean-cut definition of what is considered as a domestic company. Legally speaking, many Chinese internet companies set up shell companies (through the Various Interests Entities structure, discussed in detail in Chapter 4) registered in offshore tax havens in order to bypass national restrictions on foreign investment. In terms of commercial performance, with few exceptions like TikTok, Chinese internet companies' revenue streams, business operations and online populations are still largely based in the domestic market. In terms of regulation, the government-imposed licensing requirements for myriad sectors of online services, such as online news, publishing and games, ground the respective business units under the jurisdictions in China and mandate the ownership to be held by a Chinese citizen. This means that although various foreign institutions and private individuals have equity ownership of domestic Chinese internet companies, they do not obtain the same level of control. Therefore, the share structure and places of registration do not make good indicators in properly distinguishing a domestic internet company. Therefore, in this dissertation, domestic internet companies refer to internet companies whose main business operation, revenue stream, and user population are predominantly based in China.

Meanwhile, this dissertation recognizes the relative autonomy of private Chinese internet companies as agentic actors that negotiate between demands of the state and the capital market. Internet companies need to plead allegiance to the Chinese state by partaking in national projects and globalization policy directives as a necessary condition to sustain their operations in the domestic market and to accumulate market power and dominance by winning official endorsement (Keane & Chen, 2019). In this regard, companies and the state are not engaged in a zero-sum game. Instead, state-corporate power relationship and interplay are dynamic and therefore require context-specific examinations.

Amidst the emerging line of study that conceptualizes the ascendance of giant internet and tech companies as "digital platforms", it is my deliberate choice to address and study the Chinese internet enterprises as *companies*. Firstly, emerging out of business studies, software studies and media studies, scholars often draw upon the concept of digital platform to study one product (such as Google Map, Instagram, or WhatsApp) owned by a tech company and probe its socio-technical construct, political economy and social impacts. However, an internet company can simultaneously own many different platform services (for example, Alibaba owns payment app Alipay, ecommerce platform Taobao and music streaming platform Xiami). As this dissertation focuses on how internet companies control and coordinate different business units and platform services to maximize and pursue objectives as one commercial organization, company is a more suitable concept than platforms. Secondly, the term "digital platform" often evokes the ubiquitous and infrastructural-like properties of services offered by private tech companies that undercut many social activities and transform social institutions and power relations by wielding their connective power in the West (Plantin, Lagoze, Edwards, & Sandvig, 2016; van Dijck, Poell, & de Waal, 2018; Srnicek, 2016). But Chinese internet companies, even though some have achieved commercial

success, still trail behind the GAFAM (Google, Apple, Facebook, Amazon, Microsoft) in terms of global reach, popularity and market dominance. To further recognize China's distinctive socioeconomic context that shapes the uses and penetration of internet, commercial internet's uses are already highly uneven and vastly diverse in different parts of China, let alone to assume an even platformization process of the Chinese society. Although mobile internet is ubiquitous among internet populations, internet penetration rate in China is only at 61.2% in 2019 (see Appendix A).

Use of the term company then emphasizes that Chinese internet companies always operate and compete in the marketplace, driven by the motives to seek and maximize profit to realize the ultimate goal of increasing company value. And as market players, to account for and manage risk is an essential aspect of operation (Picard, 2011). The risk accounting aspects emphasize the *economics* of allocating resources as a crucial process to fully understand the strategies, corporate decisions and political economy of Chinese internet companies. For example, where to list company shares is not only a question of what is permitted by domestic policy and regulation but also an economic consideration: how much are the listing fees, what are the regulation and disclosure standards of the chosen stock market. The same applies to internet censorship (discussed in detailed in chapter 1): to Chinese internet companies, it is not only about politics and state control, but also is simultaneously an economic matter: how to avoid the cost (business or license being suspended) while censoring effectively and efficiently. Without discounting the normative values of individual rights and freedoms, recognizing these structural limitations as the necessary preconditions helps to get at a practical and realistic understanding of how these companies operate within the Chinese marketplace. After all, censorships, manifested in various forms, exist in both democratic and non-democratic countries.

The internet, depending on the scope of analysis, can include many technical layers, industries and various definitions. In this dissertation, internet companies specifically pinpoint businesses and private enterprises that primarily focus on the provision of web services and applications. I exclude hardware manufacturers and telecommunication providers in the analysis. Even though they are a significant and crucial part of the industry value chain, they belong to a different industry sector all together and most telecommunication companies in China are state-owned and -controlled due to their strategic importance to national security. Private internet companies, on the other hand, are relatively distant from direct state ownership thereby different units of capital are given more leeway to maneuver.

Lastly, the use of the phrase "Chinese internet" carries with it a set of meanings and assumptions. Gianluigi Negro (2019) distinguishes the initial infrastructure building process in the country as "the internet in China" while "Chinese internet" denotes the balkanization of internet with the Chinese model of internet governance in global arenas. Meanwhile, Guobin Yang (2012) regards the "Chinese internet" as a cultural form, which simultaneously exhibits global features with localized characteristics. Yang defines the Chinese internet as comprised of "network services associated with specific technologies, genres, and practices common among Chinese users. (Yang, 2012, p. 49)" Building on these two conceptions of the Chinese internet, this dissertation uses the Chinese internet to describe the distinct technical, socio-political and cultural formations of the internet as it is appropriated by the Chinese society. Technically, the Chinese internet is a highly controlled infrastructural system, interlinked together first by provincial networks and then interconnected with global network infrastructure through a limited number of internet exchange points and national gateways. In terms of socio-political uses, the Chinese internet is highly dynamic with the

implementation of various control mechanisms (such as censorship, content regulation, and image filters) and creative forms of user resistance, often captured in the phrase as a "cat and mouse game". In terms of cultural formation, the Chinese internet means the internet culture that was marked by the early genesis of the bulletin board system, subsequent active social media uses (McLelland, Yu, & Goggin, 2017), various commercial uses such as group buying and livestreaming, as well as the Chinese internet users' "trans-border" cultural practices on many blocked web services (such as Facebook, Twitter, Google) (Yang, 2012). Therefore, the Chinese internet includes concomitant domestic appropriations and global interconnectedness in terms of infrastructure building, socio-political and cultural practices.

Chapter Outline

Chapter One starts by reviewing the existing literature on Chinese internet. It first examines the group of literatures that treat the Chinese internet as a technical system. It shows how the Chinese government has built out an internet infrastructure with control implemented and enacted in policy mechanisms, technical control points, and human censors. Yet as a socio-cultural space, internet users are creative at bypassing state control and making various non-political uses of internet in China. Lastly, existing studies explicate how the Chinese internet carries important political and economic functions in the country's globalization processes in exporting Chinese norms and rules in global internet governance debates and as a pillar for capital accumulation.

Chapter Two outlines the policy contours of China's communications industry to highlight the various roles the communication industry shoulders: as a means of ideological (re)production, to consolidate political control and expedite economic development. Through systematically analyzing the state's five-year plans, national policy initiatives and objectives, this chapter looks at the role of communication in macro-level state planning. Accompanying this transformation, this chapter summarizes the specific measures of China's ongoing media reform and how it has unfolded along three key processes: privatization, liberalization, and reorientation of regulation. This chapter lays out the context to understand the subsequent growth of the internet industry in China.

Chapter Three situates the internet in Chinese state-directed media globalization initiatives, tracing the policy origins and key state directives and measures in encouraging media and internet companies to go global. It also critically examines the globalization dynamics of Chinese internet companies and unpacks the industry's embeddedness in the global network of investors, capital and tech and management expertise. Meanwhile, this

chapter also analyzes the policy measures to counterbalance and secure political control amidst the increasingly global dynamics of China's internet industry.

Chapter Four constructs, on a meso-level, a historical analysis of the foreign listing process of Chinese internet companies by systematically examining ten internet companies that went public at different time periods. Focusing on the risk section in the company's initial public offering prospectus, this chapter discusses how state regulation and global capital market have gradually shaped the capitalization of Chinese internet companies— an essential part of Chinese internet companies' globalization experience.

Chapter Five examines, on a micro-level, how transnational internet company and capital reconfigures its relationship in China using the case of Alphabet. Looking at historical news reports, company annual reports, financial data, media releases and web archives, this chapter takes stock of Alphabet's expansion in China from 2001 to 2018 and historicizes its development in three phases: as investor, as market participant, and as collaborator. It is argued that on the one hand, Alphabet's expansion in China is enveloped by the clash over internet governance agendas between U.S and China. On the other hand, the vested commercial and strategic interests of Alphabet pit corporate interests against a coherent iteration of national interests, namely, the U.S freedom to connect agenda vs. China's internet sovereignty agenda.

Chapter Six proposes a tripartite model of state, capital and internet company in understanding the globalization and globalizing dynamics of the Chinese internet. These bi-fold dynamics show that Chinese internet and companies emerged out of the context of China's media globalization that was already underway. Meanwhile, the globalization project is far from complete and is constantly evolving as the internet reconfigures, assembles, and

reinvents a unit of Chinese capital as part of transnational capitalism. This chapter concludes with the key findings and discusses the limitations of this research.

This dissertation contributes to the existing literature on the Chinese internet by looking at how capital, state and internet companies interact across various stages of transnational capitalism and in China's media reform and development (from early 2000s to 2018). It showcases how Chinese state and domestic internet companies develop great adaptability and flexibility in channeling foreign capital in commercial internet development through setting the conditions of entry, enacting licensing and control over operation to secure political control. It offers answers to the question of how China achieved success in preserving its own national market as U.S-led digital capitalism sweeps across other national communications markets.

Chapter One: Literature Review

In the inaugural issue of *Internet Histories: Digital Technology, Culture and Society*, Janet Abbate (2017) calls for attention to the politics of definition when studying the internet. Different ways of defining the internet construct different geographical and temporal scopes of narratives, as well as myriad framings of internet histories and the inclusion and exclusion of certain social groups and activities. As the internet develops well into its second decade in China, internet has come to mean different things for its users. The following review of literature surveys existing studies and scholarly works on the internet in China, organized into three subsections, attentive to their different underlying positions. The literature offers insights into the research question that asks how Chinese government reconciles the political goal of maintaining a sovereign internet without tarnishing its economic development.

In the domestic setting, the Chinese government has built out the internet as a socio-technical system with control implemented and enacted through the infrastructure, governance and regulation, as well as human censors that sustain the daily operation and monitoring of the web. This control is contested, circumvented, and sometimes augmented by creative internet uses and interactions

Developmental Trajectories and Regulations of a Socio-technical System

A main camp of existing literature unpacks the internet in China from the perspective of a socio-technological system. Under this frame, internet is regarded as channel for transmitting data and is developed in a larger economic and institutional context (Abbate, 2017). These studies trace and examine the breaks, flow, glitches, and uncover the *modus operandi* of Chinese internet control and its constituting technical structure, regulatory frameworks and management practices.

The regulation of the internet is shaped by sociopolitical context and different policy priorities promoted by different generations of Chinese leadership. The third generation of Chinese leadership (1989-1992), President Jiang Zemin and Prime Minister Li Peng, heavily emphasized the technical efficiency of the internet in nation building and economic development. The fourth generation of leadership (2002-2012), President Hu Jintao and Prime Minister Wen Jiabao, in contrast, prioritized social stability, as crystalized in the idea of a "Harmonious Socialist Society". President Hu, for example, declared: "whether the government can cope with the internet is a matter that affects the development of socialist culture, the security of information, and the stability of the state" (Lee & Liu, 2012, p. 127). Xi Jinping's ascendance into power in 2012 marks the further tightening of control and heightened importance of cybersecurity and the "return of ideology" (Yang, 2014). Internet regulation under Xi mobilizes norms and rule of law to tighten the grips of control, which includes sporadic internet cleansing campaigns (净网), the invoking of 'civility' and moral guidelines (Jiang, 2016). The government's loose call for "civility", which includes being a *civil* netizen and maintain a *civil* cyberspace – turns norm building into a powerful regulator for myriad online behaviors. On the technical side, scholars have chronicled the deepened integration of technologies such as data mining and deployment of online public opinion management into the government's toolkits to control and maintain social stability (Creemers, 2015, 2017).

Various independent studies unveil the inner working mechanisms of Chinese internet control and censorship. Piecing them together, they illustrate that control mechanisms on the Chinese internet encompass technical and manual means and are highly contingent on geographical regions, types of content and hosting websites and evolve dynamically with offline politics. Jonathan Zittrain and Benjamin Edelman's (2003) study is

one of the early efforts to examine Chinese internet filtering. They discover that the censorship efforts are highly contingent and opaque and it is often hard to distinguish an intentional block from a temporary network or server glitch (Zittrain & Edelman, 2003, p. 73). Others lend support to Zittrain and Edelman's finding on the inconsistent and highly disguised censorship activities on the Chinese internet. Rebecca MacKinnon (2009) employs manual testing methods to examine censorship practices on the Chinese blogsphere and shows that different blog service providers approach the task of regulating users and content with widely varying degrees of enthusiasm. The ambiguous characteristics of censorship are further confirmed in Joss Wright's study on censorship variations across different geographic regions. Wright (2014) shows there are regional variations in filtering and observes the heterogeneity of filtering activities across China. Moreover, censorship strength not only varies *within* China, researchers at the Citizen Lab find that WeChat, a popular Chinese mobile chat program also censors content differently inside and outside China (Ruan, Knockel, Ng, & Crete-Nishihata, 2016).

As internet censorship and control grow more complicated and diverse in China, scholarly testing methods also become more nuanced and complex in determining the purpose and characters of online public opinion shaping (Dong, 2012). Keywords testing is a common method employed to determine which kind of content is more likely to be censored and results show that censorship is highly dynamic with offline politics (Crandall, et al., 2013; Ng, 2013; Fu, Chan, & Chau, 2013). Chinese internet censorship is found to target forestalling the occurrence of collective activities rather than eradicating criticism about the Party and the country (King, Pan, & Roberts, 2013). Through quantitative testing of social media posts

written by '50cent party'[2], researchers find that they do not engage argumentatively or defensively in online debates, instead, they avoid controversial issues by creating cheerleading and positive discussions of valence issues (King, Pan, & Roberts, 2017). Similarly, Bolsover and Howard's (2018) study confirms automation, such as bots, is not a common strategy in state's propaganda toolkit.

Other studies, employing qualitative methods such as online ethnographies and guerrilla ethnographies, highlight the organically emergent forms of online opinion shaping and guidance by certain constituencies of internet users in China, such as Little Pink (Fang & Repnikova, 2017), voluntary 50cent party (Han, 2015) and the cyber criticism of public intellectuals (Han, 2018). These groups can be loosely termed as 'regime defenders'. They are not employed by the state, but through nationalistic, rational and logical arguments, they ultimately work out to defend and help stabilize the regime. These pockets of Chinese internet users add further nuances to state-directed or state-sponsored forms of control and challenge the binary thinking of total control vs. resistance and state vs. society in the dynamics of online discussion, as the line between "suppressor" and the "suppressed" is not always so clear cut and hinges upon the context and content of conversation.

Despite the fact that censorship is implemented through various means, control is never total. Technical glitches, counter-reactions, and regulatory frameworks all pose challenges and hindrances to the smooth enactment of state control over the internet in China. Historical recounts of early development of the Chinese internet show inter-bureaucracy competition over regulatory authority and jurisdictions between Ministry of Post and Telecommunication (MPT) and Ministry of Information Industry (MII). This initial

[2] 50 cent party is alleged astroturfers hired and compensated (50 cents RMB per post) by Chinese government to channel, influence and shape online public opinions.

opening amidst the bureaucratic turf war actually curved out a short-lived period of relative freedom for internet between different institutional users such as administration, international business community, media, and citizens (Damm & Thomas, 2006; Harwit & Clark, 2006; Mueller & Tan, 1997; Tan, 1995).

Dai (2000) noted there were "holes" in the Great Firewall[3] and argued that existing heavy-handed regulations sometimes lack clearly defined implementation mechanisms due to intra-ministerial struggles to cling on power and certain state regulations are not consistently applied to employees of foreign companies. Others also echo the same concern and identify several obstacles that cripple a clear view into the labyrinth of regulations, rules and policies that structure internet operation and control in China. On the one hand, the involvement of a large number of government ministries and administrations has resulted in inefficiency and overlapping of responsibilities (Wacker, 2003). On the other hand, the clumsy bureaucratic structure of the Chinese government has made control over the internet impractical and comprehensive censorship impossible (Cheung, 2006; Hu, 2011). Furthermore, heavy-handed regulation of the internet sometimes lacks clearly defined mechanisms for implementation, as typified by the substantial disagreements and uncertainty hovering over much-touted concepts like "internet sovereignty" (Zeng, Stevens, & Yaru, 2017). China's *Cybersecurity Law* is a case in point where the law came into effect on June 1, 2017, but due to uncertainties and ambiguities of terms and definitions such as cross border data transfer and data localization, the execution of related regulations is delayed until the end of 2018 (Lee, 2017). Legal scholar Anne Cheung (2006) traces the development of Chinese internet regulation and highlights the

[3] Great Firewall was an often-cited metaphor to describe the Chinese internet censorship that blocks many foreign websites such as Facebook, Twitter, and New York Times. Some argue it is a problematic metaphor as it implies the state only censor information from outside and masks a range of actors that are exerting control, such as private companies (Arsène, 2012; Tsui, 2007).

arbitrariness of law-making. Cheung (2006) points out that the cluster of regulations put in place between 1996 and 2000 is repetitive in cross listing similar categories of forbidden content (p. 4). Similar conclusions are drawn in other studies that show the lack of coordination and an overarching regulatory framework (Wacker, 2003; Yang & Mueller, 2014). While some see it as a problem, other thinks the ambiguities and broad definition are well intended to allow the government to cast a wide enough net over what is deemed 'illegal' (Wacker, 2003).

The private sector also plays an indispensable role in controlling the internet as the state exports and downloads these responsibilities to individual private companies. As the Chinese internet gradually evolves into a commercial sphere, private companies are important gatekeepers and intermediaries for average user's daily online encounters. While an earlier study (Dai, 2000) predicted a much more positive outlook that trade policies and commitments would have had in withering away state control as China entered into the World Trade Organization (WTO), various studies document the co-optation between domestic and foreign private companies and Chinese government in controlling the internet from varying vantage points: infrastructure and technical equipment and online content management (MacKinnon, 2012; Deibert & Rohozinski, 2011). Weber and Jia (2003) explore the motives behind the industry self-regulation rule, *Public Pledge on Self-Discipline for the Chinese Internet*, created by the Internet Society of China together with more than 100 Chinese internet companies and academic institutions in 2002. They argue that although the intentions behind self-regulation seem innocent, this approach basically downloads the responsibility to control content to individual internet companies (Weber & Jia, 2003; 2007). This line of research highlights the salient role that private companies play in the Chinese internet control system.

Over time, the progression of China's internet censorship and control largely follow the Open Net Initiative's conception of the three generations of internet control (Deibert, Palfrey, Rohozinski, & Zittrain, 2008, 2010, 2011). Different generations of cyber control evolve from overt, straightforward modes to more covert, sophisticated modes. The first generation of control includes means to deny access such as filtering and blocking while the second generation of control features the construction of a legal and normative environment to justify censorship, ranging from registration policy, defamation laws, threats of national security and DDoS attack (Deibert, Palfrey, Rohozinski, & Zittrain, 2008, 2010, 2011). While this generation of control mobilizes laws and regulations for the purpose of subtler, fine-grained, in-time control, the third generation of control is more advanced and multidimensional in the buildup of a strong national information space that surveils its users, mines user data, and disseminates prepackaged propaganda. Reviewed literature shows the co-existence of all three generations of control on the Chinese internet, from the technical to the institutional and the establishment and promotion of norms and value (e.g. civility). The thesis of control remains to be the leitmotif in the common imagination of the internet in China and in popular media discourse (Qiu & Bu, 2013).

However, internet control literature tends to portray the state as the powerful actor and market players as merely conforming and obeying the state's orders. This research risks rendering any genuine mistakes and glitches of the internet in China as types of censorship (Ng, 2014). Less is written about the institutional formation of a highly concentrated internet economy dominated by a handful of domestic giants that makes control easier and manageable, as Jennifer Pan (2017) drives this point home: "China's ability to censor media rests on the dominance of domestic firms in China's market for Internet content" (p. 167). Such unique market structure for China's commercial internet—which is favored by both the state

and incumbent market leaders, is an indispensable underpinning condition in the successful implementation of content control and censorship. These means of control, filtering, and censorship, regardless of their rigidity, intensity and scope, have existed since the popularization of the internet in China. They are not new nor did they emerge overnight. Meanwhile, this is also not to denounce the importance of studying Chinese internet censorship and control and its effects on expression, liberty, privacy and democracy. Rather, the level of market competition can create a conducive condition to internet control, in which domestic companies claim dominance and the cooperative actions of private actors either voluntarily or coercively (Pan, 2017). Moreover, viewing the internet as a mere conduit for information transmission tends to overshadow user agency and creativity and the cultural formations that are taking place on the Chinese internet. In order to claim sovereignty over the internet, the Chinese state needs to constantly monitor, guide and police myriad aspects of internet uses. Social uses of the internet in China also shape how the Chinese internet is governed in the domestic setting and this is what the next section of the literature review sets out to reveal.

Civil Society, Transgressions, and Culture

Studies that seek to understand the internet in China as a social-technical system only reveal one side of the story. As control mechanisms proliferate, Chinese internet users are adaptive in inventing ways to bypass and circumvent control. The concomitant advancement of political control and commercialization gives rise to rich and unique culture formations on the Chinese internet, in which David Herold (2011) compares the Chinese internet to Mikhail Bakhtin's notion of carnival—a space for chaotic and emotional public interactions. The carnival analogy captures the liveliness and diversity of cyberspace in China. The internet has fostered multitudes of online cultures in China by myriad users, from government's adoption

and appropriations of social media, the ascendance of nascent civil society to the celebration of consumer culture. Astute Chinese media scholar Guobin Yang (2012) argues that the internet has been domesticated and localized to the extent that the *Chinese internet* should be examined as a cultural form like American television.

What constitutes the Chinese internet as a cultural form? The Chinese internet has its cultural genesis in university bulletin board systems (BBS) and discussion forums such as the once vibrant Tsinghua University BBS SMTH (水木清华) and Peking University BBS *ytht* (一塌糊涂) that predated the popularization of commercial portal websites in the 90s (Yang & Wu, 2017; McLelland, Yu, & Goggin, 2017). The subsequent closure, or 'disappearance' of online forums like SMTH and Peking University BBS marked the bygone era of sociality and community that constituted many early internet users' lived experience and identity (Yang & Wu, 2017). Online discussion forum *Qiang Guo Lun Tan* (Strengthen the Nation Discussion Forum) was another BBS for early internet users in China. Although the forum was hosted under the Chinese Communist Party's Official news portal *People's Daily*, it still offered a deliberative space with relatively relaxed control compared to other central propaganda spaces, as Min Jiang's (2010) research shows. She further conceptualizes the exchange between the government's relaxed control and enhanced Party legitimacy as "authoritarian deliberation" (Jiang, 2010). The popularization of microblogging in China since 2008 subsequently opened up a chapter for new forms of online interactions, uses, and means of gathering. In its heyday, microblogging platform Weibo sparked optimism as a "breeding ground for mobilization" for its role in online and offline collective action and social movements (Huang & Sun, 2012). Others further distinguish the formation of multiple public spheres where open and critical debates can occur despite the close watch of the state (Yang & Calhoun, 2007) and develop a typology composed of thematic public spheres, short-time

public spheres, encoded public spheres, local public spheres and non-domestic and mobile public spheres (Rauchfleisch & Schäfer, 2015), highlighting the diversity and vibrancy of microcosm online.

The popularity of social media such as Weibo also introduces changes to how Chinese governments make use of the internet. Through having a social media presence, the state is able to fine tune service delivery and improve social management, political legitimacy (Schlæger & Jiang, 2014) and maintain social stability (Esarey, 2015). Tong and Zuo's (2014) research argues that Weibo is indeed providing the government with an opportunity to benefit from popular knowledge about local disputes and protests while enhancing its legitimacy by making punishment of local officials widely exposed and discussed. In 2014, Weibo broadcast Chongqing province Party Chief Bo Xilai's trial live—the first time in Chinese legal history. Dubbed the "trial of the century", Bingchun Meng (2016) argues that internet companies like Weibo are not on the receiving end of party politics but are actively partaking in it, joining forces with traditional media in shaping mainstream press discourse and framing major political events of the country. Not only politics is mediatized by microblogging, the technical design and aesthetics of Weibo create an immersive environment which fosters the cacophonous spectacle of entertainment while minimizing reasoned debate (Benney, 2014), augmenting commercial content (Zhang & Zhang, 2018) and polarizing discussion (Lin & Tian, 2018). More cautious view suggests that while the Chinese government is more responsive online, the internet is still marginalizing those socially and economically disadvantaged (Hassid, 2015).

Diverse web cultures thrive as more people are wired to the internet in China. Over time, Yang (2009) documents the changing style and genre of online contention and activism based on intensive ethnographic work. One of the unique ways resistance manifests and

expresses in cultural forms is through online political satire and spoofs. Alexander Lugg (2013) argues that Chinese web users created video spoofs to show discontent with government policy and social political issues. Seeing it as the "weapons of the weak", Lugg is optimistic about the ability of video spoofs to challenge established social and cultural power structures. Through large scale survey data, Lei's (2011) research also lends support to the democratic prospects of the internet in China. While using a culturalist approach, Meng (2011) questions the quality of online spoofs as rational debates and their ability to produce actual policy consequences. Instead, she contests the cultural value of spoofs as part of Chinese civic culture and emotional bonding for participants (Meng, 2011). Yang and Jiang (2015) further conceptualize online political satire as a form of dynamic resistance practice produced and mobilized in networks to express political opposition and offer mundane heuristics and analytical purposes for web users.

Although resistance and contention are the most studied aspects of online culture, the internet in China also offers space for a kaleidoscopic range of other social interactions: play, leisure, recreation and consumerism. As the internet reaches different socioeconomic classes, internet uses and culture also bridge different classes. Jack Linchuan Qiu (2009) argues that the digital divide cannot be captured as the "have" and "have not", but 'have and 'have less' as the working class appropriates internet uses. McDonald's (2016) ethnographic research in rural China supports such a view. However, like any technology, the appropriation of the internet in a certain society is always molded by existing social, political and economic relations. The LGBTQ communities in China are highly contentious given state-imposed regulations offline and online (Hung, 2011; Ho, 2010; Jia & Zhou, 2017). The rise of consumerism and commercialization online further the exploitation and deepening of the fault lines of class and gender. On one hand, commercialization of online content production

gives rise to the widespread practice of paid posting, where workers are compensated financially to post content for marketing— a malaise resulting from China's media policies that prioritize economic growth (Han, 2017). On the other hand, rapid e-commerce development requires the construction, propagation and justification of discourse that promotes consumerism. For instance, the Double Eleven annual shopping campaign[4] created by Alibaba promotes highly sexist discourse that celebrates women as consumers-in-chief under the hegemony of patriarchal capitalism and peddles consumer capitalism as the savoir of the stagnant national economic development (Meng & Huang, 2017). Jing Wu and Guoqiang Yun (2018) conclude that the social imaginaries and shaping of Chinese internet have progressed from tools for nation building and modernization, to a network for social, political organization and to neoliberal thinking.

Nationalism is a highly contested theme on the Chinese internet. A polarized ideological landscape gives rise to the China-as-super-power mentality (Wu, 2014). Nationalism online is not only exercised in a top-down manner with the state carefully controlling information on sensitive historical issues and conflicts online (Schneider, 2015), it also emerges and is practiced from the bottom-up. The recent rise of 'Little Pink'[5] –young cyber nationalists in China, rooted in the cross-strait meme war that took place on Facebook between mainland China and Taiwan (Fang & Repnikova, 2017). The label Little Pink is a demonstration of how gender served as a weapon of convenience for creative soft seduction discourse that is often associated with femininity in China's game of contested cyber-nationalism (Fang & Repnikova, 2017).

[4] It is called Double Eleven because the shopping event takes place on 11st of November each year. A less popular but similar shopping festival takes place on 12nd of December and is called Double Twelve shopping festival.
[5] Little Pink, argues Fang and Repnikova (2017), is largely appropriated label by party organs that transformed from feminine nationalism to a term encompassing young nationalists.

Internet users in China do demonstrate agency, creativity with spaces afforded by the internet for open discussion, deliberation and identity formation. Internet censorship and control is negotiated, bypassed, and contested in the daily online experience of average internet users in China. Based on the analysis of web traffic, geo-linguistic and cultural proximity, rather than the technical control system that is built into the internet infrastructure, which is known as the Great Firewall, plays a significant role in influencing online behaviors (Taneja & Wu, 2014). Employing the sociology of knowledge approach to discourse, Wu (2012) argues internet uses facilitate Chinese debate culture and independent-thinking based on her ethnographic work over a span of six years.

The propagation of the internet gives rise to highly mediatized online experiences and empowers pockets of internet users to create, react, vent, dissent, and organize. Meanwhile, it reinforces existing power relations and subjugates the marginalized and disfranchised groups. The strand of literature on Chinese internet user groups and respective culture formation highlights the dynamism that emerged under the unique technical design, arrangements and regulatory framework of the Chinese internet. It provides a comprehensive picture of how the Chinese internet is organized, utilized, and governed in the domestic settings. It is apparent through various cases studies that the Chinese state is very flexible at adjusting and adapting to emerging social uses and transgressions that took place online. Yet, the missing piece is the industry development and the economic arrangements that structure these user experiences.

If studies of the Chinese internet as cultural experiences and practices are intrinsically local as bounded by the line of demarcation drawn by geo-linguistic and cultural proximity, the political economy of the Chinese internet is global. To add complexity to the state-society analytical axis, the internet in China developed at a historical juncture that allows the active participation of foreign capital and a vibrant private sector. It is also closely aligned and

animated by the ongoing process of globalization and expansion of transnational capitalism. The next section looks at literature that addresses the development of the Chinese internet as caught up in national-global dynamics.

Globalization and the Chinese Internet

Exercising Sovereignty

In the early 2000s, China's accession to the World Trade Organization brought waves of optimism for leveraging global trade commitments to curb the censorship of foreign websites as cross-border flow of digital information became international economic and trade issues (Dai, 2000). Economic globalization as the ultimate savior for political democratization is a widely held belief as Western media corporations and politicians touted their internet business to China. However, as the history of Chinese internet development attests, democratization through economic liberation is a false proposition. After all, as Winseck (2000) argues, the idea leverage to WTO to curb telecommunication and internet regulation and expand media freedom is limited because the organization aims to promote free trade, not free speech. Although media reform and liberalization did introduce advanced managerial style and know-how to Chinese media companies (Chan, 1994; Lin, 2007; Li, 2016), they further deepened processes of commercialization and commodification. As Yuezhi Zhao (2007) points out: "the most important change in the Chinese national communication system has been its commercialization and its transformation into a platform for capital accumulation" (p. 149). The development of the internet in China interweaves a tight nexus between state, business actors, and capital.

In the Chinese internet governance literature, there is well-established consensus that the state does plays a dominant role in regulating and monitoring content (MacKinnon 2012, Ruan, et al. 2016), in establishing a holistic cyber-sovereignty framework (Zeng, Stevens and

Chen 2017, Arsène 2016) and in making national technology development plans (Chen, 2019). Meanwhile, research has also shown that various non-state actors have entered the game, not the least private Chinese companies like Alibaba, Tencent, Baidu, as well as technical communities, playing roles in spearheading national policies (Vila Seoane 2019, Keane and Wu 2018, Leong 2018), setting technical standards, and shaping China's internet governance agenda (Shen 2016, Negro 2019).

In terms of the global governance agenda, scholars have documented multi-pronged Chinese state initiatives to challenge and overturn U.S-dominated global internet governance initiatives, from standard setting (WAPI and TD-SCDMA), critical internet resource allocation such as domain name systems, to internet-related public policy (Liu, 2012) and developmental goals (Hong & Goodnight, 2019). The internet has become the pivot of global contestations between nation state and geopolitics. As China aspires to be an agenda-setter in global internet governance, its role has gradually turned more active, and ever interwoven with big nationally-headquartered business such as Huawei and Alibaba and transnational business. Viewed in this regard, Shen (2016) argues the common label of cyber sovereignty does not capture the dynamics in China, as it often portrays a unified authoritarian state as the sole controller and governor of the global internet.

Sustaining Economic Development through the Internet Industry

Regarding domestic industry development, Min Jiang (2012) summarizes the policy making processes of the internet in China in three major stages: liberalization, regulation, and state capitalism. The liberalization process, as committed under the WTO entry, created a host of successful domestic internet firms while regulation ascertain the state has the upper hand through censorship, licensing, ownership and the creation of state media watchdog (Jiang, 2012). State capitalism denotes the concerted efforts the Chinese state deploys in

participating in the market to be more politically relevant in the digital age. Scholars have examined a series of state efforts in incorporating, capitalizing and expanding the global presence of state-owned online media units such as *People's Daily* (Xin, 2017; Yin & Li, 2019). Yu Hong (2017) analyzes three cases of state-business disputes between Foxconn, Qualcomm and Alibaba, arguing that the state colludes with corporate interests on making the internet an omnipresent vehicle of accumulation and enlisting private and transnational capital as stakeholders. In fact, the state has been very adept at employing "capitalist tools in socialist hands", forging state-owned telecommunication enterprises with huge economy of scale through conglomeration, merger and acquisition, such as China Mobile (Wójcik & Camilleri, 2015). As a result, Michael Curtin (2017) sees the media revolution sweeping across Asia since the 1990s as being animated by multifaceted neoliberal political projects and economic globalization while glazed in the technologically driven outlook (p. 1378).

Home to world's largest internet population and market, many scholars have zoomed in on leading internet companies as critical sites to examine the relationship between capitalism and industry development. Both critical and Marxist political economic scholars have noted the converging characteristics between leading Chinese and U.S internet companies. They demonstrate that in both countries the integration of monopoly-finance capital and the internet represents the dominant tendency of the global capitalist system (Fuchs, 2016), and concentration of market power in the hands of a few internet companies rings alarm bells both in the U.S (Foster & McChesney, 2011) and in China (Xia & Fuchs, 2016; Jia & Winseck, 2018). Bingqing Xia and Christian Fuchs (2016) unveil the power wielded by the BAT (Baidu, Alibaba and Tencent) in sweeping up start-up companies into their pockets to accumulate capital based on financial rather than productive accumulation. Such market

power dominance by a few giant internet companies further stimulates the internet finance bubbles and exacerbates the social inequalities in China (Xia, 2018).

Chinese Internet and Financialization

As ICT and the internet become the terrain of capitalist expansion, they are inevitably transformed by and exhibit the characteristics of the broader historical development of capitalism. Since the 1970s, financialization has come to mark the recent stage of capitalism. As a much-debated concept, financialization is nonetheless characterized by three tendencies: non-financial enterprises are involved in financial processes; banks are generating profits from financial transactions rather than traditional lending and borrowing; and individuals and households are reliant on financial systems to facilitate access to vital good (Lapavitsas, 2013). The broader consequences of these shifts in the economic realms are the financialization of everyday life, the shaping of subjectivity and alteration of people's ways of thinking (Martin, 2002), and the rise of finance hegemony, which encapsulates the idea that finance institutions increasingly serve as instruments for the capitalist class to exert control over other industrial sectors in general (Duménil & Lévy, 2004).

Various scholarly studies have made clear how the media industry is connected to the financialization process writ large: on the one hand, financialization has reconfigured the organizational goals, priorities and management structures of media enterprises, especially for multinational media conglomerates in order to meet shareholders' financial expectations (Fitzgerald, 2012); the spike in mergers and acquisitions undertaken by media conglomerates not only created debt-financed growth pattern and generated financial profit for the banking sector, but also accelerated the financialization of the media industry (Winseck, 2011); for the tech and internet industry in particular, financialization is key to sustaining the chase for scale through stock market financing and rampant mergers and acquisitions to achieve

monopolistic and oligopolistic market positions at the expense of more sustainable growth models (Khan, 2017; O'Reilly, 2019).

The Chinese internet industry does not develop in isolation from the financialization process. Marked by an active private corporate sector that benefitted from foreign capital investment, the internet in China is both an expression of the ongoing financialization processes and also a propeller of the financialization of the Chinese society. For example, Chinese internet companies have formed tight interlocking relationships with global financial institutions, expertise and management since its initial funding stage to underwriting process in preparation of stock market listing (Jia, 2018; Jia & Winseck, 2018; de Graaff, 2020). More recently, leading private Chinese internet companies have established their own venture capital funds and actively invested in up-and-coming start-up companies, therefore shaping development of the internet in emerging national markets (Tang, 2019). Domestically, internet companies in China use their financial power to buy out and take over market competition and start-ups, leading to market concentration, high barriers to entry and costly innovation (Xia, 2018). Such growth patterns have generated serious societal impacts, from the training and education system to the labor market. Xia (2018) writes about the rising number of market-oriented vocational programs that provided cheap labors to tech companies. Meanwhile, China's ride-sharing company Didi exploits its workers through intensive extraction of data and datafication processes (Chen & Qiu, 2019). The highly financialized internet companies also induce changes to the format, flow and conditions of digital labor. Sun (2019) shows that food delivery workers often rely on "organic algorithms", such as personal ties and connections to navigate the precarious and obscure algorithmically organized and governed platform work. Growing discontent of tech companies' work culture

and working condition has led to the anti-996 movement in 2019, which stands for the twelve-hour day from 9am to 9pm, six days a week overtime working schedule (Li, 2019).

However, the financialization process that is transforming the industry and wider Chinese societies is not the working of internet companies alone, but is abetted and enabled by the Chinese state as well. As Lapavitsas and Mendieta-Muñoz (2016) point out, the state plays an important role in financialization, especially in the lifting of financial regulations and in policymaking and interest rates set by central banks that shape society's economic activities. Petry (2020) argues that in China, financialization proceeds with Chinese characteristics, in which the state refashioned its role as shareholder and harnessed the financialized logic in managing public investment through the capital market. Chen (2020) finds that in the policy discourse framing, platform economy is often phrased as "sharing economy", therefore masking the conditions of structural inequality between platforms and workers under the promises of participation, inclusion and growth. Together with neoliberal policy making, the internet companies are set to play both the role of incentivizing economic growth and the maintenance of social stability, engaging more individuals into the process, such as the mass entrepreneurship policy (Keane & Chen, 2019). For instance, China's leading e-commerce company Alibaba capitalizes on existing infrastructural deficiency to extract surplus value generated from petty capitalists in rural Taobo campaigns (Zhang, 2020).

In sum, internet companies in China are simultaneously shaped by financialization as a historical stage in capitalism development and constitute the financialization of the Chinese society through engaging more individuals into using and working for their platforms. Under the official "inclusive finance" policy, which is to increase access to digital financial services and online lending to address the gap for financial inclusion, financial news media in China contribute to the financialization of the wider society (Wang, 2017). Drawing on the policy

environment, the country's leading e-commerce platform Alibaba further diversified into financial technologies (Wang & Doan, 2018). The Chinese state, on the other hand, leverages the popularity of these platforms to roll out a nationwide social credit system to digitize authoritarian social governance (Gruin, 2019). The financialization process is co-shaped by internet companies and the state, rooted in socioeconomic realities and conditions of Chinese society and precipitated by state-led tech developmental projects.

Chapter Summary

Viewed together, although overlapping authorities and lack of coordination have come to plague effective enforcement of regulations, the state still leverages significant power in regulating and overseeing the development of the internet in China. As much as the internet is a means of control, it simultaneously empowers. Commercial activities thrive alongside a myriad of cultural, social, and political expressions and appropriations by average users. On a macro level, the internet not only serves the political ambitions and national aspirations of the Chinese state but also provides a platform for capital accumulation.

Although the existing literature makes clear how the Chinese internet partakes in these political and economic goals, rarely do scholars connect these two developments. The Chinese internet not only fosters global connections, projects the nation's pursuit of control over key information and communication resources, but also is the pivot upon which transnational capitalism is transposed in the socioeconomic realities of the Chinese society. How the Chinese government achieves politically contained and commercially vibrant internet development first offers a powerful counter argument against techno-determinism rooted in Western culture of the internet since the Californian Ideology (Barbrook & Cameron, 1996). Secondly, it provides a national-level study where capitalism reconfigures the power relations under the distinctive institutional context of China's communications sectors.

Lastly, as the Chinese internet is increasingly commercialized, looking at its underlying political economy tells us the type of future it will bring about: internet developed by whom and for what purposes?

Therefore, to contextualize the internet development in China, the next chapter turns to a historical examination of media and communications industries in China's informatization and modernization. To understand the role of communications in the historical process of nation building and modernization helps lay out the path-dependent institutional context within which the internet emerged in China. The continuities in the country's vision of how internet should be built, for what purposes and by whom, shapes its subsequent growth.

Chapter Two: Historical Transformation of Communication in China

This chapter recounts the historical developments and transformations of Chinese communication industries since the late 1980s as the country re-integrates into global capitalism. The first section provides the necessary context to foreground communication industries in nation-building and development goals through a systematic examination of the country's Five-year plans. The next section catalogues detailed measures of China's media reform underway since the 1970s to liberalize, privatize and corporatize domestic communication industries. Under the ensuing marketization of China's communication industries, the regulation of the internet was shaped by three-way motivations to maintain the Party's control, protect national security, and fortify commercial growth. This section outlines the evolution of China's internet regulation framework to illustrate how current regulations are designed to achieve these threefold goals.

Communication in State planning: Overview of Five-Year Plans and Key Policies

Information and communication technology has long occupied a central and special position in China's history, national security and economy development. The struggle for national sovereignty in telecommunication development persisted throughout successive rulers of China, from Qing Imperial court to the rule of Central Communist Party (CCP) in China's anti-imperialism and anti-colonialism history (He, 1997). Various generations of leaders held the long-standing techno-nationalism view that treats high technology as a source of national power and the prism that defines China's position in the world (Feigenbaum, 1999, 2017). Over the course of history, communication has been largely perceived in various instrumental roles: as weapons in class struggle and tool of the Communist Party, as an instrument of CCP's reform and open-door policies, and as means to inform and entertain its people.

The information and communication industry ascended in strategic importance over China's modernization processes that transformed the central-planning economy into a socialist market economy. In 1949, The Chinese People's Government formed the Ministry of Posts and Telecommunications (MPT) to supervise the Directorate General of Telecommunications and the Postal Services, which later monopolized China's telecommunication development until 1998. The four modernizations projects[6] were first enunciated by Zhou En-lai in his report to the Fourth National Peoples' Congress in 1975 to re-adjust China's development objectives after the chaotic Cultural Revolution. The Four Modernizations aimed to establish the Chinese nation as a major economic, political and cultural power through domestic institutions reform. In 1970s, President Deng Xiaoping emphasized the importance of education and scientific development as the key foundation for national development in catching up with the West. As a means to leapfrog development, Chinese leadership looked to the West and formulated policies based on Alvin Toffler's idea of the information society. The *Third Wave* was widely regarded as a reformist intellectual's Bible and was once ranked the second bestseller after the selected works of Deng Xiaoping in the early 1980s (Zhao, 2014). Then-Chinese Premier Zhao Ziyang met Toffler personally and organized a conference to urge policymakers to study it (Zhao, 2014). Premier Zhao, who championed Toffler's idea, envisioned the centrality of science and technology policy in achieving economic modernization, and such thinking later became the building block of the 863 Plan (Gewirtz, 2019).

With the support of the central leadership, high technology research and development was institutionalized in various state plans to strategically improve the nation's high-tech power, such as the 863 Program, the Spark Program, the Torch Program and the Scaling

[6] These were modernization of agriculture, industry, science and technology, and national defense.

Heights Program. The 863 Program, institutionalized in March 1986, is a state-supported national high-tech program that aimed to create symbiosis between science, engineering and industrialization to improve national security and long term economic competitiveness (Feigenbaum, 1999). The Torch Program, on the other hand, focuses on exploring the commercial potentials of high technology and stipulates 3,255 business incubators (Torch High Technology Industry Development Center, 2013; China.org, 2017; Ma, n.d.). By 2004, the state had invested more than 11 billion RMB[7] into the program, and generated more than 2,000 patents and over 56 billion RMB worth of added value (MOST, 2004). The 2015 National Key Research and Development Plan further reformed and reconsolidated previous R&D plans, including 863 Program, into the new National Key Research and Development Plan (China.org.cn, n.d.).

The *Five-Year Plan for National Economic and Social Development* formulated by the Chinese Communist Party every five years since 1953, is a key state planning document outlining macro development goals and the allocation of key and productive resources based on each industrial sector's contributions to the national economy. Tracing past Five-Year Plans, it reveals the ever more salient role ICT played in national political and economic development. The Seventh (1986-1991) and Eighth Five-Year Plans (1991-1996) positioned telecommunication industries as key strategic sectors in national economic development after decades of ignoring the industry (He, 1997). It was during the Seventh Five-Year Plan, in 1987, that China was first connected to the global internet. The Ninth Five-Year plan (1996-2000) proposed a parallel development of all high-tech industries. Then-President Jiang Zemin formalized the national strategy of 'invigorating China through Science and Education' (科教

[7] The exchange rate between USD and RMB in 2004 is 8.28

兴国) with funding earmarked by the state. Jiang's strategy is consistently carried throughout subsequent Five-Year Plans to advance progress in science and technology, providing the primary engine to drive the development of productive forces (生产力). In 1997, the *Informatization of the National Economy* program affirmed the role of network technology in national productivity and economic performance.

The Tenth Five-Year plan (2001-2005) proposed a more focused goal for the development of high-tech industries such as software, communication equipment and digital products. Towards the end of 2006, the State Council put forth the *State Informatization Strategy* (2006-2020) to further position information and communication technology as a strategic sector (also known as the "dragon head" sector). The Party renders the information technology sector as a new site of economic growth and a key aspect of the nation's integration with transnational information capitalism (Zhao & Schiller, 2001). The electronic information and information technology industry was listed as one of the focus areas for development in the Eleventh Five-Year plan (2006-2010). The Twelfth Five-Year Plan (2011-2015) further highlighted the development of telecommunication, radio, TV, internet networks, Internet of things (IoT), cloud computing, and information software. The Plan proposed convergence between the internet and traditional communication sectors. The Thirteenth Five-Year Plan (2016-2020) introduces the *Made in China 2025* initiative and leverages the internet to invigorate sluggish economic development and to assist state-led transition from an export-driven and investment-dependent economy to one based on domestic consumption and innovation (Hong, 2017). Under the auspices of state planning, ICT exceeds other sectors in the high-tech industries in China and accounted for more than 70 percent of output value as of 2014 (Sun & Grimes, 2018, p. 14).

The path of development of communications and ICT in China has always adhered to the historic transitions of the Chinese state and its geopolitical aspirations. As China's Gross Domestic Product (GDP) growth rate slows down after 2008 economic crisis, falling below 7% for the first time in decades in 2015, domestic social unrest brews. The leadership turns to harness ICT and the internet to manage and balance domestic tensions and to upgrade rhe national economy for global competition through two state-directed initiatives: *Internet Plus plan* and *Mass Entrepreneurship*. The 2015 *Internet Plus plan* addresses the ideological and productive role of the internet: it positions the internet as the center of revamping propaganda, managing public opinion and reassuring the Party's dominance (Creemers, 2017), and as a crosscutting lever to integrate with other areas of economic restructuring and to propel a new digital capitalism capable of uplifting the Chinese economy in the global setting (Hong, 2017). The Mass Entrepreneurship plan aims to prompt start-up culture as a solution for social and economic problems faced by the Chinese society (Keane & Chen, 2019).

The leadership's policy objective to construct China as a Cyber Power (网大强国) was further upgraded into Cyber Superpower (网络强国) in 2018. These political and economic realities bring the two poles of growth: communications and information technology and China's integration into the transnational capitalism ever closer (Schiller, 2005). Globally, China not only seeks to set technical standards regarding 5G network upgrade, to counter U.S dominance over global internet development, it also seeks to set the norms and agendas of global internet governance through hosting the World Internet Conference since 2014 (Budnitsky & Jia, 2018). China touted its vision of internet sovereignty at various fora, such as the World Summit on the Information Society, International Telecommunications Union, and Internet Corporation of Assigned Names and Numbers (Arsène, 2016; Negro, 2019). The Chinese internet industry factored prominently in the Belt and Road Initiative (BRI) launched

in 2013 by President Xi Jinping to mitigate industrial overcapacity, to facilitate Chinese firms' global expansion and to construct a China-centered transitional network infrastructure for an internet-enabled inclusive globalization (Shen, 2018). Communication industries carry dual functions of (re)producing ideology as well as the (re)production of dominant relations of production through technological upgrades for the Chinese state, and further to reclaim its place in world communication order (Shi, 2018).

Shaping the Media: Balancing the Commercial and the Political

China entered economic opening up and reform in 1978 to transform the nation from a centrally planned economy to a market-oriented economy. The Chinese state has played an important and active role in justifying and legitimizing rationales for reform, developing industrial policies to propel market reform and neoliberalism while remain committed to Socialism, as the official termed "Socialism with Chinese characteristics". Various scholars capture the systematic top-down state engagement and shaping as forms of "state neoliberalism" (Chu & So, 2010), "state capitalism, Chinese style" (Hsueh, 2015, 2016), and the "advance of state" (Eaton, 2015). As part of the reform efforts, the communications sector underwent gradual but significant reform.

There are three waves of media reform and commercialization in China, all of which unfold in coalescence with the political and economic vicissitudes of the Chinese state. The first media reform took place after the Cultural Revolution in late 1970s. The second period of media reform followed the economic stagnation of the 1980s and the 1989 student movement. These two reforms cut state subsidies to media organizations and launched the process of commercialization to shed the government's fiscal burden. Meanwhile, the government consolidated media entities to increase economic efficiency and to centralize control (Meng & Rantanen, 2015). The economic crisis of 2008 unleashed another wave of media and

communication restructuring to achieve tripartite purposes: to foster information consumption, to enhance innovation and reorganize production, and to spearhead the go out campaign (Hong, 2017). Overall, as China progresses from nation-building to re-integration with global capitalism, the debates over the role of Chinese communications sectors reflect a gradual shift from a key sector in securing state control over information to steer *domestic* economic developments to *international* developments (Eaton, 2015).

The media reform that proceeded at a gradual pace since the 1980s introduced market mechanisms into communications sectors, disrupting the Party state's monopoly in order to achieve global compatibility and market competitiveness. The media reform unleashed marketization and institutional and ideological restructurings, propelled by four basic dynamics identified by Graham Murdock and Peter Golding (2009): privatization, liberalization, re-orientation of regulation and corporatization. The following section examines key policies and directives. These reform steps install and recognize commercial motives in China's communication and information sectors and extend the space in which capital, both domestic and foreign, are allowed to maneuver.

Privatization is the sale of strategic public assets to private investors and the reconstitution of public enterprises as profit-seeking corporations (Murdock & Golding, 2009). Although media and telecommunications are still mainly owned and controlled by the state, the Chinese government has taken a gradual and pragmatic approach in privatizing media and telecom sectors. Reform of state-owned telecommunication and media organizations overlaps with the central tenant of the state-owned enterprises (SOE) reform of "grasp the big ones and let go the small ones" (抓大放小). The institutional restructuring processes can be summarized as "closure, suspend, merge and transform" (关停并转): closure and suspension of non-performing press outlets, merge and transform them into commercial media groups

(Huang, 2007). The state withdrew financial supports and subsidies, leaving newspapers to turn to advertising and entertainment content as the main business model, and making state-owned media less ideological (Zhao, 1998; Hu, 2003). For example, Press and Publication Bureau's Circular no. 19 in 2003 called for cancellation of forced subscription.

Liberalization opens up monopoly or restricted markets to competition. While broadcasting and news are still in hands of the state with strict licensing requirements, telecommunications industries are liberalized as China entered the World Trade Organization. Prior to 1993, foreign businesses are not allowed to run or participate in telecommunications services according to State Council's No. 55 Regulation *State Council Approves MPT Proposal Regarding Further Strengthening Regulation of the Telecommunications Market* (1993). However, China Unicom flouted the foreign direct investment (FDI) ban by making China-China-Foreign arrangements and formed lucrative joint ventures with foreign companies including Ameritech, Bell Canada and Deutsche Telecom before the Ministry of Post and Telecommunication banned such arrangements (Eaton, 2015). China's accession into **the** WTO significantly liberalized the telecommunications market by allowing foreign entities to own up to 50% of value-added services and 49% of basic telecommunications services according to General Agreements on Trade in Service (GATS).

Meanwhile, foreign capital investments have made important inroads into other media sectors. Initial attempts at forming joint ventures between Chinese media organizations and foreign media started in the early 1990s. AOL broadcast CCTV-9[8] to three U.S cities on its cable system in exchange for becoming the first foreign television broadcaster in China (McDonald, 2001). AOL-Time Warner also formed a $200 million joint venture with Legend Holdings, the largest Chinese personal computer manufacturer at that time, for AOL to

[8] CCTV 9 is the international channel of China's Central Television Station

bundle its internet services software on PC desktops (Wonacott, 2001). However, the joint venture never took off and was put under review in 2003 (The Guardian, 2003). The media sector, albeit mostly state-owned, gradually and selectively opened up to private capital (Hu, 2007; Zhao, 2003). In 2019, British Telecom became the first foreign telecoms firm to obtain nationwide operating licenses in domestic IP-VPN service and Internet Service Provider (ISP) service. And BT will be able to contract directly with Chinese clients and bill them in RMB (CGTN, 2019; Jun, 2019).

The reorientation of regulation describes the transition of regulation from underwriting the public interest to securing a business environment that gives major corporations maximum scope for action. Media reforms reoriented domestic media organizations with international best practices in preparation for WTO accession while securing the state's ideological control. As Hu Zhengrong (2003) reckons, from 1996 to 2001, the five years preceding China's WTO entry was the period where government most intensively promulgated media policies in the past 50 years. With regards to the internet, in 2000 alone, six major internet content control regulations were put forth by the National People's Congress, the State Council, and the Ministry of Information (see Appendix B). Despite direct involvement of government organizations, policing power of the internet is further delegated to non-state actors such as ISP, ICP, and web companies (Cheung, 2006). Industry self-regulation was quickly put in place through the 2002 *Public Pledge on Self-discipline for China's Internet Industry* (Internet Society of China, 2002) in conjuncture with the Internet Society of China. Scholars note that although self-regulation promotes the commercial use of the internet, it loads internet service providers with responsibilities to monitor and direct content posted on hosted websites (Weber & Jia, 2003, 2007). These regulations secure the state's tight ideological grip, as seen in numerous and redundant

reiterations of content regulation banning content impairing national security, jeopardizing national unity, spreading rumors, obscenity, pornography, as well as other vaguely fitted categories in regulation governing online video, internet service providers, and internet content providers (Cheung, 2006). Meanwhile, to avoid incurring serious disruptions over flows of information that damage the commercial prospects of the Chinese commercial internet, three rulings: *Administration of Internet Information and Service Procedures*, *Administration of Engagement by Internet Sites in the Business of News Publication*, *Administrative Provision for Electronic Bulletin Service*s *on the Internet* carve out a limited liability regime, emulating the Safe Harbor rules in the United States, limiting internet companies' liabilities in the case of copyright and intellectual property infringement.

The privatization, liberalization and re-orientation of regulation recalibrate the already nebulous line between enhancing Party control and fortifying market growth, creating contradictory crisscrossing between the politics and the economy of communications in China. Market share now is also a political matter. The privatization of provincial TV networks has to proceed with limits in order to not challenge the political order of local-central TV networks. Provincial TV stations are encouraged to be commercially successful. For example, Beijing Media group went public on the Hong Kong stock exchange in 2004 (Xinhua, 2004), but was unable to use the capital raised in the IPO to buy into other provincial markets or into the broadcasting market because it was considered public property (Sainsbury, 2012 cited in Hong, 2014). The profit-making ability of state-owned telecommunication companies is not only a goal driven by market competition but also a mandate to increase national assets, under the State-owned Assets Supervision and Administration Commission (SASAC).

Media reforms reinforce the concomitant development of media commercialization

and political nationalism (Flew, 2018, p. 8). With the goal to build a strong and nationalistic communications industries, reorganization of media based on the market logic led to three broader transformations towards marketization: expansion of the scope of market, corporatization of media and telecommunications entities, and a consumer oriented industrial logic. Firstly, the size and operating scope of the market increases progressively. Prior to the 1990s, communications industries were largely in hands of Chinese government. Media reforms increase the managerial autonomy of media organizations in the country. While state-owned enterprises are still subject to central planning, they can trade goods and services on the market after meeting the requirement of the central plan. This installs the market-logic into state-owned enterprises. In 2012, the Party further recognized the mixed ownership during the Third Plenary Session of the 18th CPC Central Committee. As Yuezhi Zhao (2003) summarizes:

> "while the fact that transnational communication corporations can now expand their scope of operations in China is certainly highly significant regarding their capital accumulation, as far as the Chinese national communication system is concerned, the most significant transformation is its commercialisation and its transformation into a platform of capital accumulation per se- regardless of the national origins of capital. (p. 61)"

The state policies directed at cultural industries further attest to this expansion of capitalist accumulation logic into Chinese communications industries. This typifies **corporatization,** whereby public sector organizations are encouraged and/or compelled to pursue commercial opportunities more aggressively and to adopt corporate forms of organization (Murdock & Golding, 2009, p. 114). In 2012, former President Hu Jintao called for the building of a global socialist cultural power house and letting publicly-owned enterprises take the driver's seat, co-existing with other forms of ownership. The Sixth Plenary Session of the 17th CPC Central Committee in 2012 and the publication of the *Decision of the CPC Central Committee on Major Issues Pertaining to Deepening Reform of the Cultural System and Promoting the*

Great Development and Flourishing of Socialist Culture (CPC Central Committee, 2014) marked the beginning of an expansionist period for seven designated industries: film and TV production, publishing and distribution, copying and printing, performance and entertainment, digital content, and animation. At the end of 2002, public assets accounted for 73% in the radio, film, and television sector, and corporate assets 27%. In 2008, corporate units increased by 52%, accounting for 97.9% of all registered legal units, in contrast with public units as an abysmal portion of 0.8% (Hong, 2014). For telecommunications, the Chinese government broke the monopoly of Ministry of Post and Telecommunication and separated its regulatory function from its enterprise arm China Telecom (政企分开). Market competition was introduced by the government in the 1998 telecommunications reform. During 1997 and 1998, telecommunication service sector has been the most intensely contested, radically restructured, generously capitalized and marketized sector. It has been assiduously protected from foreign equity investment, and it has engendered the most significant set of joint venture crises since reform begin (DeWoskin, 2001).

Secondly, the market criteria of success rose to prominence as a yardstick to measure and evaluate the operation of a media organization. The profit and capital accumulation goal is widely adopted by state-owned organizations, especially state-owned telecommunication industries: in the early 2000s, China Telecom once enjoyed an 8% profit margin with little public accountability, preferential treatments to markets with high rates (Zhao, 2000). Two digital arms of the state-owned news organizations: *People's Daily* and *Xinhua News Agency* went for public listing on the Shanghai Stock Exchange in 2012 and 2016 respectively. The stock listing demonstrates state-owned news organizations' quests for overseas credibility and business expansion under the auspices of the state's go global policy and top-down policy of media financialization (Xin, 2017). As the first state-owned news organization in China to go

public, *People.cn*'s initial public offering was a success and it raised 1.38 billion RMB ($219 million USD) in the IPO, triple the initial fundraising target, making it worth nearly as much as the *New York Times* by that time (Rabinovitch, 2012). After the state-owned enterprises (SOE) reform, SASAC obtained considerable influence over SOE, such as China Mobile, China Telecom and China Unicom, through high-level management appointments, dispatch of supervisory panels and conducting annual performance reviews. The performance review measures the rate of increase and maintenance of state assets and the outcome of review is directly tied to the salaries of SOE managers. Market criteria prevails as the mode of evaluation and action imposed on the operation of the communication sectors (Fitzgerald, 2012, p. 145).

Thirdly, the corporatization of media and telecommunications entities deepens market logics and challenges the public service orientation of these organizations. Audience and users of communication facilities are addressed primarily as consumers rather than citizens. Under the market discourse, the distinction between public interests and consumer interest is eroding, as consumer interest is redefined as public interest realized and served through a liberalized market (Zhao, 2000). Even with the cultural sectors, where the state remains heavily involved, especially in film and TV broadcasting, a realignment between public and corporate interests is taking place whereby the state has allocated more resources to expedite the corporatization and marketization process through divestitures of local publishers, non-political newspapers, and arts and performance organizations to a wholesale corporate transformation (Hong, 2014). State-owned telecommunication companies failed to realize the universal service mandate of the state. The universal service fund drawn from each operator was thwarted repeatedly. Contestations between three incumbent telecommunication operators, China Unicom, China Telecom and China Mobile eventually led to the abolition of

the universal service fund (Hong, 2013). Inequalities were exacerbated, on top of the already unbalanced regional development of telecommunications infrastructure. In 2019, 38.8% of population still does not have access to the internet (CNNIC, 2019), despite talks about how Chinese internet entrepreneurs are champions of innovations and social uses. China's policymakers have employed a conception of development that holds the social needs of the vast majority of the population hostage to capital's demands for accumulation on a transnational scale (Schiller, 2005; Zhao, 2000). On occasions, the Chinese government promoted a libertarian global free-trade doctrine and aligned with the neoliberal newspeak between China's market-oriented media outlets with transnational financial media, as a form of incipient transnational capitalist class consciousness (Zhao, 2014; Neuwirth, 2019; Wu, 2014).

Throughout these transformations, the state has played a central yet multifaceted role. Instead of being a market intervener, the state instrumentalizes the media for economic and political purposes (Meng & Rantanen, 2015). The Chinese government actively harnesses market mechanisms to stage and maneuver convergence, market competition, supervise and direct foreign capital and resource allocations to build out a nationalistic communications industry (see for example, Hsueh, 2015). At the same time, China is taking a holistic approach to trade and cultural policy, treating them as complementary, in its regional and international trade agreements, such as in the Belt and Road Initiative and engagement in BRICS (Neuwirth, 2019). The involvement of Chinese state, by and large, is widely regarded as one of the attributers of China's success in a remarkably short period of time (Harwit, 2008; Schiller, 2005, 2014; Neuwirth, 2019).

Various communication sectors form a varied and uneven pattern of integration with transnational capitalism. For example, the scope of penetration by foreign capital in the Chinese telecommunication sector is much broader than in the mass media sector (Zhao,

2003). Media reforms are not frictions-free or complete. The liberalization, privatization, reorientation of regulation, and marketization does not diminish state power, instead, they recalibrate the way the state exercises control, from a top-down mode to a subtler way that fuses with the management, operation and finance of media and communications enterprises. In order to secure "orderly competition" (有序竞争), media regulators and various government agencies introduce market competition, direct and supervise conglomerations, and promote converged development between internet and other media sectors. Convergence[9] is not only driven by market competition but also as a political order for state-owned media organizations. The institutional restructuring also centralizes power and is conducive to consolidate state control. In resource allocation, appointment of key management individuals for state-owned media and telecommunication enterprises is done through the State Assets Supervisory and Administrative Committee (SASAC) to exert political and ideological control (Chan and Qiu, 2002, p.36). To further step up state control, the Chinese government learnt from the dual shareholding structure and proposed a class of "special management shares". The Report of the 2014 fourth Plenum called for creation of the 'special management shares' by the State Administration of Press, Publication, Radio, Film and Television (SAPPRFT) for online media businesses, which would represent a stake of as little as 1 percent but give Chinese official seats on company boards and the right to review media content (Balding, 2018).

To be sure, economic globalization does not bring democracy into the country. The fusion between market logic and state control of Chinese media organizations creates many "unity of contradictions" (Hong, 2017, p. 105), where in order to dilute public ownership, media

[9] Convergence describes the accelerated flow of media content across delivery channels to expand revenue opportunities, broaden markets and reinforce viewer commitments (Jenkins, 2004).

groups sought IPOs of their operational assets while retain editorial sections. The media reform gave rise to the distinctive "single ownership, dual system" nature of the Chinese media system. All media are state property, but in practice, some areas are open to private capital (Hu, 2007). Overall, the media reform in China accelerated the marketization, commercialization, and liberalization processes while simultaneously reinforcing state control domestically. The centralization and convergence of the media landscape not only consolidate government control but also give rise to giant media and telecommunication companies to ward off global competition as China continues to open up to the world. In this regard, media commercialization grows hand in hand with political control.

Chapter Summary

This chapter first outlines the historical transformation of China's communications sector in the state's five-year planning documents. It shows that communications sectors are largely viewed in the instrumental roles of fostering economic growth, advancing the nation's tech power, and in safeguarding the Party's rule. As China launched the economic reform and opened up, the Chinese state carried forward these objectives into media reform. By introducing capital, market competition and cutting of state subsidies, the previously state-dominated media landscape was quickly privatized and marketized with new imperatives to serve not only the public interests but also those of consumers and investors. Meanwhile, the state has introduced measures to ensure the ideological guidance of the increasingly marketized communications sectors to safeguard the state's ownership and control in key media outlets and the production of cultural content. The simultaneous emphasis of commercial imperative and political control has come to characterize the larger institutional context within which the internet is developed in China. As the internet ushers in unprecedented global interconnectedness, the Chinese state faces immediate urgency to

demarcate its control while it partakes in this wave of economic growth as driven by waves of new information and communication technologies. The next chapter maps internet development on to the ongoing media development and globalization in China and examines the changes and continuities as the Chinese state incorporates the internet into its project of political and economic development.

Chapter Three: Situating the Internet in China's Media Globalization

Domestic media reform modernizes media organizations, introduces foreign capital and transforms Chinese media sectors from predominantly state-owned and -controlled ones into increasingly profit-making sectors to entertain and inform. As China advances domestic economic reform and opens up, especially with the country's accession into the World Trade Organization in 2001, communications industries in China face increasing global competition. With state support, domestic media and communications enterprises are encouraged to participate and compete in the global market place to help ameliorate China's soft power[10] deficits and to reclaim China's position in the world. As an outgrowth of the country's go global industrial policy, this chapter first reviews and traces the state-led media globalization policies. It then examines two key mechanisms in China's state-led media globalization process: 1) domestic media restructuring to foster large scale media enterprises and 2) bringing in foreign capital through stock market listing. Lastly, this chapter analyzes how the internet industry partakes in and disrupts the state-led media globalization process by inserting and embedding itself tightly with the global networks of media, business and finance elites. Through a systematic examination of the political economy of large internet companies in China, this chapter concludes by discussing how Chinese internet are entangled with ongoing dynamics of globalization as it unfolds in China's media reform.

Go Global Policy and the Making of National Champions

China's industrial globalization process first originated as a set of policies targeted at nurturing large scale state-owned businesses (also known as national champions) to form

[10] Soft power, as per Joseph Nye's (1990) definition, is the power when one country gets other countries to want what it wants, derive from resources such as cultural attraction, ideology, and international institutions.

"Team China" to compete globally. The term national team or national champions denotes state-owned enterprises (SOEs) in capital-intensive pillar industries such as energy, construction, pharmaceuticals, chemicals, electronics, iron and steel, autos and aviation and aerospace (Eaton, 2015; Nolan, 2014; Sutherland, 2003). First introduced in 1987 and formalized during the 14th Chinese Communist Party Congress in 1992, this set of policies aimed at creating national champions set the goals of developing and promoting a handful of pioneering Chinese enterprise groups to foster economies of scale and global competitiveness.

These large scale SOEs crystalize emerging domestic and international challenges facing China's economic reform and industrial development: on the one hand, the nation's need to foster scale, profitability and global competitiveness, and on the other hand, the need to preserve domestic economic stability, control over production in key industries and continued one-Party rule as SOEs provide stable sources of employment (Sutherland, 2003). The national champions industrial policy was reiterated with renewed orientation towards intensifying global competition on the eve of China's accession to the WTO. Then-Vice Premier Wu Bangguo stated in 1998: "we must unite and rise together, develop economies of scale and scope and nurture a national team capable of entering the world's Fortune 500" (Jingji Ribao, 1998, cited in Sutherland, 2003).

The Chinese state leverages market mechanisms to nurture domestic SOEs to assemble a selected number of them into vanguards in international competition. The predominant means is to merge and take-over the loss-making enterprises at the order of the government (Sutherland, 2003). Seen as "the fullest expression of state capitalism in China-the global face of China Inc." (Lin & Milhaupt, 2013), statecraft in "scale management" in the media sector is criticized by scholars for artificially staging market competition through merging media organizations to create large scale, overlapping, and inefficient media

organizations (Lee, 2003). Another important measure to foster national champions is the supply of finance through the provision of bank loans and stock market listing, which provide an inexpensive method of raising much-needed capital funds, especially in capital intensive pillar industries such as telecommunications (Eaton, 2011, 2015).

The moulding of national champions sets the stage for the rollout of the going out policy. The concept of going out was first brought up by President Jiang Zemin in the 14th Chinese Communist National Congress in 1992 and later was formally written into the *Tenth Five-Year Plan* for the first time in 2001. This set of policies encourages Chinese companies to invest and set up operations abroad, to make use of domestic and foreign markets and resources. In 2006, the going out policy (走出去) (GOV.cn, 2006) further details five guidelines to support Chinese companies to grow and invest overseas:

1. increasing Chinese direct foreign investment linked to the country's systematic reform;
2. pursuing product diversification beginning with the country's most representative industries;
3. improving the capacity to effectively control risks;
4. expanding foreign financial funding in order to create and promote a system based on services;
5. support the brand recognition of Chinese companies in foreign markets.

Since the commencement of the go out policy in 2001, four different stages of globalization have taken place as China deepens economic reform and opens up: go global 1.0, where Chinese enterprises, mostly low-end international trade set up overseas sales networks; go global 2.0, where state-owned enterprises reached out to overseas market for infrastructures and natural resources project; go global 3.0 era, led by Chinese outward direct investment to set up factories and move production overseas, and lastly, go global 4.0, marked by the increasingly active role of private enterprises investing directly in overseas markets (Xinhua, 2016).

As an outgrowth of the industrial go global process, the state-led media go global process employs similar policy and market tools. During the media reform era, the Chinese government consolidated smaller scale and loss-making state-owned media enterprises into media conglomerates in order to compete with transnational media corporations in the process of globalization (Hu, 2003).

Communications and ICTs do not only directly constitute cultural and industrial sectors in the globalization process but also form the backbone of the going out policy writ large (Sun, 2015). As early as 1999, the former Premier Zhu Rongji pledged: "we must learn the lesson of the Asian financial crisis. Only when high technology is developed can we avoid the phenomenon of a "bubble economy", during a visit to the southern city of Shenzhen to attend the first China High-Tech Fair (Sum, 2003). In 1997, a handful of high technology enterprises were handpicked to participate in the initial ensemble of the national team: Great Wall Group, a leading PC producer, Changjiang Computer Group, Legend (now Lenovo) and Founder group (Sutherland, 2003). The country's three incumbent telecommunication operators, China Mobile, China Telecom and China Unicom are the stars of the national team. They all raised considerable capital through listing on foreign stock exchanges (Table 1). The stock listings of other national champions, such as Xinhuanet, the digital arm of *Xinhua News Agency* (Xin, 2017) and People.cn, the online operation of *People's Daily* (Jia, 2019) exemplify the state's pragmatic approach to nurturing Chinese media groups through absorption of private capital and management know-how whilst maintaining a firm grip on ownership and political control (Huang, 2007). As Michael Curtin (2017) writes: "the media revolution that has swept across Asia since the 1990s is often characterized as a technologically driven phenomenon. At a deeper level, it has been animated by a multifaceted neoliberal political project and economic globalization (p. 1378)."

The national champion and go global policies not only deploy concerted state resources and planning but also strategically leverage foreign capital to conjure up large scale Chinese media and communication enterprises to secure home markets as the country re-integrates into global capitalism and opens up to the entry of foreign capital. As Dan Schiller (2005) succinctly puts it: "the promise of market entry for foreign capital is tied… to a build-up of aspiring Chinese companies into transnational corporations" (p. 91).

Table 1 Public Listing of State Owned Media and Telecommunication Enterprises

Company	Listed On	IPO Year	IPO Raised	Underwriters	Registration
China Mobile	HKSE	1997	4.2 billion	China International Capital Goldman Sachs	Hong Kong
China Unicom	HKSE	2000	4.92 billion	Morgan Stanley	Hong Kong
China Telecom	HKSE	2002	1.4 billion	Morgan Stanley, Merrill Lynch, China International Capital Corp	PRC
People.cn	Shanghai	2012	222 million	CITI	PRC
Xinhuanet	Shanghai	2016	212 million	CICC	PRC

Source: author's compilation from corporate annual reports

From 'Peaceful Rise' to the 'Community for Common Destiny'

The policy goal for media go global is not only industrial but also symbolic and cultural. The set of policies designed to encourage Chinese media to go global is summarized as 'borrowing a boat to go to sea' (借船出海), which consists of multipronged strategies aimed at both state-owned and commercial sectors of media, including the internet, international media and foreign correspondents. State-owned media such as *People's Daily*, *China Daily*, *Chinese Central Television*, *China Radio International*, *Xinhua News* are major actors to carry the content of China's international communication and external propaganda (Yang, 2018). These organizations also expand influence through buying out foreign entities and forming content-sharing partnership. For example, *People's Daily* formed a partnership deal on content sharing with *Today Commercial News*, a Canadian Chinese newspaper serving Chinese immigrants and diaspora in major cities such as Toronto, Vancouver, Montreal, Calgary and Ottawa (Today

Commercial News, 2016). The private media sector plays a complementary role to state-owned media organizations in conducting publicity and influencing foreign audiences. Foreign journalists and reporters stationed in China help cater communications to an international audience about China (Yang, 2018; Sun, 2015).

China Central Television (CCTV) and China Radio International (CRI) started to increase their global appearance after China joined the WTO in 2001. However, it is not until 2009 that the media globalization is operationalized with a coherent plan. There are two waves of state-led media go global initiatives. The first round of government actions was initiated in 2009 with the *General Plan for Building Major Media's Capacity for International Communication* (2009-2020) (CPC Central Committe & State Council, 2009) with huge budget commitment for six state-owned media[II] (Ye & Albornoz, 2018). This stage of media globalization was wrapped within China's foreign diplomacy of 'peaceful rise' under the Hu-Wen administration. The Chinese government poured $6 billion in support to revamp state-owned media's (*Xinhua News*, *People's Daily* and CCTV) global reach and presence to address the country's deficit in discursive power and cultural exports (Li, 2016; Hu & Ji, 2012). To glocalize—which means to recognize the local heterogeneity as a corrective to the homogenizing effects of globalization (Robertson, 2015), the CCTV established foreign bureaus and hired foreign staff and launched multilingual broadcastings (Table 2).

Table 2 Globalization of State-Owned Media in 2009

Date	
2009-02-03	China Daily launched its North American version
2009-04-20	Establishment of *Global Times* (Second English paper issued)
2009-07-01	Xinhua English TV to broadcast news through satellite and internet
2009-07-20	CCTV started to provide Arabic service
2009-09-10	CCTV started to provide Russian service
2009-09-23	China Radio International broadcasted in Belarus, Dutch, Greek, Hebrew, Iceland, Norway
2009-09-30	English version of Party magazine *Qiushi* launched overseas and domestically

[II] Six state-owned media are: CCTV, China Radio International, People's Daily, China Daily, Xinhua Agency and China News Agency

2009-10-01	CRI broadcasted 10 hours of Chinese program, broadcast sixty years anniversary of China
2009-12-28	CNTV
2009-12-31	Xinhua News Agency's CNC established

In 2011, as a harbinger of the second phrase in China's media globalization, the former head of the *Xinhua News Agency* President Li Congjun (2011) proposed the idea of establishing the "United Nations of Media" in an editorial in the *New York Times*. The intention of the "UN of Media" speaks to China's goal to set a new global communication order by challenging the Western hegemony. Historically, China has stepped up its role in remapping global communication by pushing for an alternative to the existing New World Information and Communication Order (NWICO) and the World Summit on Information Society (WSIS) (Shi, 2018). However, since 2011, the second stage of media globalization has rolled out few new diplomatic projects under President Xi Jinping. For example, Xi introduced the concept of building a "community of common destiny" (CCD) that foregrounds China's co-development and co-prosperity with the rest of the world in 2012 (Zhang, 2018). Meanwhile, in conjunction with the Belt and Road Initiatives (BRI) backed by the Asian Infrastructure Investment Bank (AIIB), China is promoting "inclusive globalization", enabled by a transnational internet infrastructure, at various global venues, such as the World Economic Forum (Shi, 2018).

During this phrase, the globalization of Chinese media focuses on contending with the dominance of US and its hegemonic power in global communication order. In 2014, *Xinhua News Agency* instituted its own version of the Pulitzer Award –the World Media Summit Global Award for Excellence. To counter the decades-long U.S dominance in cyberspace governance, China actively promotes its cyber sovereignty agenda, which emphasizes the state's role in governing the internet through the World Internet Conference (WIC) (Gan, 2018; Mai, 2017). The conference has been hosted annually by the Cyberspace Administration of China since 2014. It is a venue for China to propagate its vision of state-led internet

governance—a vision that builds on United Nation's Charter that recognizes national sovereignty—as an alternative to the multistakeholder model.

The rapid commercial growth of Chinese internet companies, namely Baidu, Alibaba and Tencent (collectively known as BAT) marks the emergence of a new crop of globally competitive Chinese communications enterprises. While they remain privately held by company founding figures and other institutional shareholders, they are often referred to as "national champions" by many (for example, Jiang & Fu, 2018; Keane & Wu, 2018; Leong, 2018; Ma & Abkowitz, 2018) to denote the rise of the new face of the national team. Leading Chinese internet companies also latch onto the rhetoric of 'national champion' to showcase their alliances with the nation's development and globalization agenda. For instance, Alibaba's former CEO Ma Yun openly acclaimed that Alibaba is a "national enterprise" (国家企业) and it should represent Chinese culture, Chinese value system, Chinese technologies and Chinese productive forces (CNR, 2014).

The coining of "internet diplomacy" in 2014 demonstrates the state's thinking of conducting diplomacy through the globalization of Chinese internet companies and global internet governance venues. The Chinese government piggybacked on the growing cultural capital and soft power of commercially successful Chinese internet companies. The founders and CEOs of internet and tech companies (such as Baidu's CEO Li Yanhong, Alibaba's Ma Yun and Huawei's Ren Zhengfei) have all accompanied the President on various state visits and made public appearances. Lu Wei, the former head of China's Cyberspace Administration invited U.S college graduates to visit China's internet champions in a speech given at George Washington University (GWToday, 2014).

Overall, China's media go global policies mainly focus on and are most commonly carried out by central government-level state-owned media (Hu, Ji, & Gong, 2018). Local and

provincial media organizations are largely absent in the game. The media go global policies also tend to be event-based and episodic, focusing on international events such as the Beijing Olympic Games (Yang, 2018). However, the impact of state-implemented media go global remains inefficient or unclear at best (Sun, 2015). State-owned media organizations even find themselves embattled by the dilemma between balancing market expansion imperatives and succumbing to Party's increased ideological and political influence (Hu, Ji, & Gong, 2018).

Moreover, state-imposed media go global policies primarily focus on the promotion of media *content* and highlight the instrumental role media enterprises play in propagating state diplomatic agendas and official ideologies at the expense of profitmaking. Meanwhile, the commercial development of large Chinese internet companies unleashes new dynamics of globalization that bound these China-based enterprises tightly with an increasingly global network of finance and business elites, whilst their main markets are still based in China. The following section presents a meso-level analysis of the political economy of large internet companies in China and their interlocking relationships with transnational capital, management expertise and emerging overseas market. This analysis showcases how foreign capital and overseas-educated elites have jumped start the commercial internet in China.

The Globalizing Dynamics of Chinese Internet Companies

Developed at the historical junctions between the country's media reform and globalization, major internet companies in China in large part emerged out of transnational flows of business and technical expertise from the Silicon Valley and U.S venture capital in the late 1990s to early 2000s. Their subsequent growth and expansion unleashed and intensified a deeper and tighter integration with global capitalism and network of elites in three prominent ways: **firstly**, the flow of tech know-how, and financial and managerial expertise, especially between Silicon Valley and Zhongguancun in Beijing, provides

indispensable human resources and services to the founding, securitization and financing of these companies; **secondly**, despite China's restrictive foreign investment rules, private internet companies are agentic actors in creating the Variable Interests Entities (VIE) ownership structure to eradicate state-imposed barriers for global capital accumulation, fund-raising, and essentially to facilitate a more frictionless capital flow, which proves critical for establishing market dominance domestically and globally; **thirdly**, internet companies in China quickly become a constitutive force for globalization, as they seek out overseas markets through investment, mergers and acquisitions of foreign entities. These three dynamics align the development of internet companies in China tightly with the historical transformation of capitalism, namely, the development of neoliberalism and the ascendance of finance hegemony and broader trend of financialization.

Flow of Human Capital and Global Interlocking Elites Networks

When tracing the founding history of major Chinese internet companies since the late 1980s, Silicon Valley tech expertise and foreign venture capital play an influential part. This is clearly showcased in three of the country's most established internet portal companies founded in the 1990s: Sina, Sohu, and Netease. Sohu's early investors include Intel Corp and Dow Jones (Sohu, 2000). Sohu's CEO Charles Zhang received his PhD in Massachusetts Institute of Technology in Experimental Physics and later he gained crucial financial supports for Sohu from two MIT professors: Nicholas Negroponte and Edward Roberts (Gold, 2011). Zhang left his position as MIT's liaison officer for China and established Internet Technologies China (ITC) after returning to China. Joseph Chen, also a MIT alumni, was the vice president of Sohu when his company ChinaRen was acquired by Sohu in 2000. The online web portal, Sina's founder Zhidong Wang created the company out of a merger between Wang's Stone RichSight Company and the Silicon Valley company Sinanet, a

company funded by three Taiwanese individuals to serve mainly the diasporic Chinese community (Sheff, 1999). Netease, a leading internet company offering online content, games and email services, also drew heavily from the financial backing from Softbank, News Corp. and Goldman Sachs (Netease, 2000). The CEO of leading Chinese search engine Baidu, Robin Li, used to work at one of Silicon Valley's search engines, InfoSeek, as Senior Engineer prior to establishing Baidu (Baidu, 2017). Overseas returnee entrepreneurs have played an important role in exploring the commercial growth of internet in China by bringing foreign experiences, personal connections and venture capital back home (Zhang, 2008). China's accession to the World Trade Organization in 2001 also opened up opportunities for e-commerce companies such as Alibaba.com, in connecting foreign buyers with Chinese manufacturers starting just months before China joined the WTO.

Major internet companies in China resorted to global capital markets for much-needed financial backing by listing company shares on foreign stock exchange (see Table 3). A majority of them are listed in the U.S. In the process of share listing, global financial advanced business service (FABS)[12] played a critical role in underwriting initial public offerings (IPO) and performed necessary financial, legal and accountancy functions (Wójcik and Camilleri. 2015). With the exception of Sina, all Chinese internet companies employed a team of foreign investment banks as underwriters in their IPOs. Credit Suisse First Boston, Goldman Sachs, and Morgan Stanley are the most popular ones. The underwriters' role in an IPO include assessing company's value, advising the issue price, drafting the prospectus, and promoting the sale of shares to potential investors. These investment banks will also buy any shares unsold to investors at a predetermined price.

[12] Together with FABS, banks, asset management companies and offshore jurisdictions are all part of the global finance network according to Coe, Lai and Wójcik's (2014) working definition.

Table 3 Overseas Listing of Chinese Internet Companies (in USD)

IPO Year	Company	Listed On	IPO Raised	Underwriters	Place of Registration
2000	Sohu	Nasdaq	59.8 m	Credit Suisse First Boston LLC	Delaware
2000	Sina	Nasdaq	66 m	Morgan Stanley, China International Capital Corporation	Cayman Islands
2000	NetEase	Nasdaq	69.75 m	Merrill Lynch, Deutsche Bank	Cayman Islands
2003	Ctrip	Nasdaq	75.6 m	Merrill Lynch	Cayman Islands
2004	Tencent	HKSE	199 m	Goldman Sachs	Cayman Islands
2004	51job	Nasdaq	73.5 m	Morgan Stanley	Cayman Islands
2005	Baidu	Nasdaq	109 m	Goldman Sachs, Credit Suisse First Boston LLC	Cayman Islands
2007	Kingsoft	HKSE	99 m	Lehman Brothers, Deutsche Bank	Cayman Islands
2009	Changyou	Nasdaq	120 m	Credit Suisse, Merrill Lynch	Cayman Islands
2011	Renren	Nasdaq	470 m	Morgan Stanley, Credit Suisse, Deutsche Bank	Cayman Islands
2012	YY	Nasdaq	82 m	Morgan Stanley, Deutsche Bank, Citigroup Global Markets	Cayman Islands
2014	JD.com	Nasdaq	1.8 b	Bank of America, UBS	Cayman Islands
2014	Weibo	Nasdaq	286 m	Goldman Sachs, Credit Suisse First Boston LLC	Cayman Islands
2014	Momo	Nasdaq	216 m	Morgan Stanley, Credit Suisse, JP Morgan, China Renaissance	Cayman Islands
2014	Alibaba	Nasdaq	25 b	Credit Suisse First Boston LLC, Deutsche Bank, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Citigroup	Cayman Islands
2014	Cheetah Mobile	NYSE	168 m	Morgan Stanley, JPMorgan, Credit Suisse	Cayman Islands
2014	Xunlei	Nasdaq	88 m	JPMorgan, Deutsche Bank	Cayman Islands
2014	Jumei	NYSE	245.1 m	Goldman Sachs, Credit Suisse, JPMorgan	Cayman Islands
2016	Meitu	HKSE	629 m	China Merchants Securities, Credit Suisse, Morgan Stanley	Cayman Islands
2017	Sogou	NYSE	585 m	JP Morgan, Credit Suisse, Goldman Sachs, China International Capital	Cayman Islands
2018	Xiaomi	HKSE	4.72 b	Morgan Stanley, Goldman Sachs, Credit Suisse, Deutsche Bank, CITIC, CLSA Securities	Cayman Island
2018	Meituan	HKSE	4.3 b	BofA Merrill Lynch, Goldman Sachs, Morgan Stanley	Cayman Islands
2018	Huya	NYSE	180 m	Credit Suisse First Boston LLC, Goldman Sachs, UBS Securities	Cayman Islands
2018	Bilibili	Nasdaq	483 m	Morgan Stanley, BofA Merrill Lynch, JP Morgan	Cayman Islands
2018	iQiYi	Nasdaq	2.42 b	Goldman Sachs, Credit Suisse, BofA Merrill Lynch	Cayman Islands
2018	Pinduoduo	Nasdaq	1.63 b	China Renaissance, CICC, Credit Suisse, Goldman Sachs	Cayman Islands
2018	Qutoutiao	Nasdaq	84 m	Citigroup, Deutsche Bank, China Merchants Securities, UBS Securities, KeyBanc Capital	Cayman Islands
2018	Tencent Music	NYSE	1.1 b	Bank of America, Deutsche Bank, Goldman Sachs, JPMorgan, Morgan Stanley	Cayman Islands

In the underwriting process, investment bankers work and foster close relationships with the top executives of the companies. The close relationships Chinese internet companies cultivated with foreign investment banks and business services firms during IPOs deepens their connections with global financial networks and paves the way to secure capital for financing companies' growth and expansion (e.g. mergers and acquisitions).

Through public listings, the market performances of Chinese internet companies are tightly interlocked with their investors' interests and capital market conditions. Their stock prices, and thereby market valuations are also influenced by stock market conditions. For instance, public-listed Chinese internet companies were swamped in the dot com bubble in the 90s'. Sina, China.com, a company owned by Xinhua News and AOL, went for stock listing at the apex of the financial hype in 1999. The opening price of China.com rose from $20 to a high of $66 on its first day of trading, making the company valued at over $1 billion USD (Sloan, 1999). Sina's stock price rose nearly 22 percent. However, the burst of the dot com bubble soon trickled down to Netease and Sohu's flat debuts on NASDAQ while the stock price of Sina, Netease and Sohu all fell below the $1 mark in 2001 (Tai, 2006).

In sum, Chinese internet companies drew liberally from foreign investment capital, which in turn was hungry for returns generated from the booming Chinese market (Schiller, 2014). Alibaba's IPO in 2014 was the world's largest at the time, valued at 25 billion, with its share price surging 38% on first day of trading. The hike in stock price also produced lucrative returns for Alibaba's shareholders. Alibaba's IPO in 2014 made Softbank's CEO Masayoshi Son, who owned 34% of Alibaba's shares, the richest man in Japan and generated a 16% gain (Lorenzetti, 2014). In September 2016, Tencent's stock value surpassed China Mobile's, making it the most valuable publicly traded company in Asia. The surge in Tencent's share turned its shareholder Naspers into the biggest company by market capitalization in Africa.

As Chinese internet companies score large initial public offerings and high market capitalization, the Chinese government gradually realizes that lucrative financial returns are being siphoned off to foreign investors. Moreover, having companies listed overseas is also a challenge to the state's ability to exert direct control. To overcome these issues, the Chinese government has sent multiple signals to internet businesses in 2018, testing their willingness to "come back" and list on a domestic exchange if asked to do so. Several companies, such as Baidu, NetEase and the country's second largest search engine Sogou have publicly demonstrated their cooperation (Dai & Yu, 2018). In 2019, Alibaba was successfully listed on the Hong Kong Stock Exchange, raising $11.2 billion from this second listing outside the NASDAQ. This was a highly politicized event and was portrayed in a nationalistic light. The Hong Kong IPO was dubbed the "homecoming" listing (Xinhua, 2019) where Alibaba's Chief Executive Daniel Zhang said, "we return to Hong Kong, return to home" (Woo, 2019). Alibaba's Hong Kong listing further signals to other foreign-listed Chinese internet companies the possibility and feasibility of doing the same. Homecoming to either the Shanghai or Hong Kong Stock Exchange also helps Chinese internet companies reduce reliance on foreign stock markets as vital means to access capital.

To reduce the heavy reliance on Western FABS in serving the IPO processes, the Chinese government recently called to strengthen domestic investment banks and firms to support and service the capital and financial needs of its homegrown internet companies. In the joint document *Guiding Opinions on Promoting Capital Markets to Serve the Strategy of Building China into a Cyber Superpower* (2018), released by the Cyberspace Administration of China and China Securities Regulatory Commission, the government emphasizes the need for China to improve the provision of domestic financial services capabilities, including financial

consultants, law firms, accounting firms in order to better give free rein to the role of capital market.

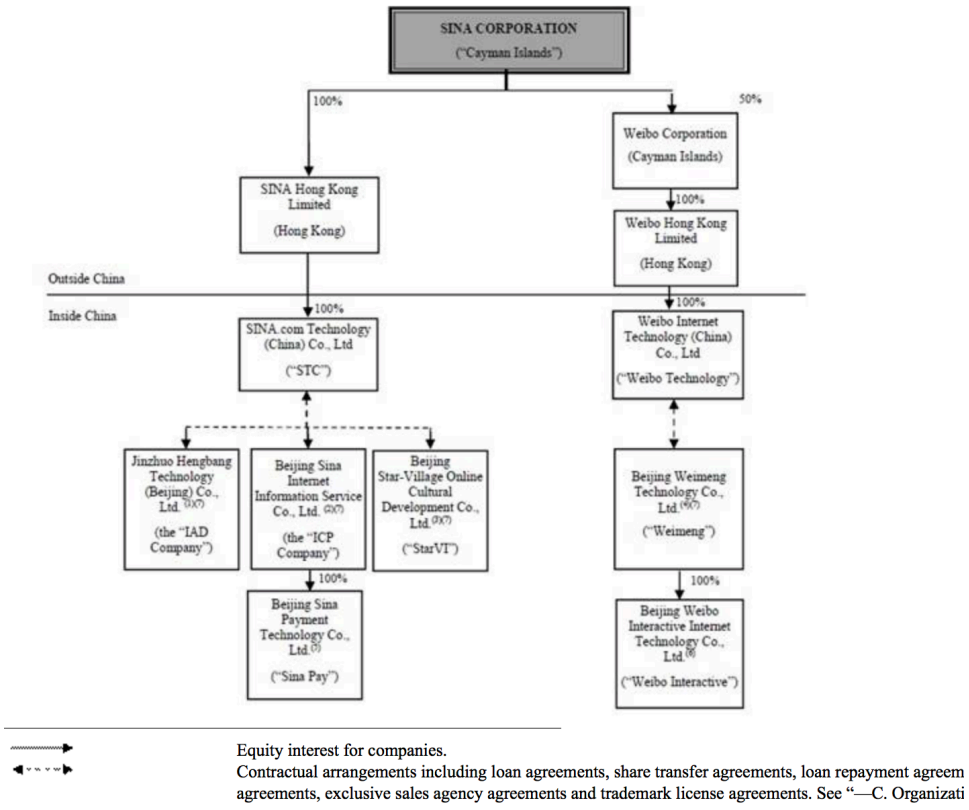
Towards Frictionless Flow of Capital: Creation of Variable Interests Entities

Growing industrialization of the media, in particular the introduction of new technology and mass production necessarily brings with it a demand for greater financial backing (Murdock & Golding, 2009, p. 208). However, China has in place a strict regulatory regime for foreign investment in communications, which hinders capital supply in the domestic capital market for its booming internet market. The current ruling on the value-added telecommunication service sector forbids foreign entities from owning more than 50% equity interest. Under the *Administrative Rules for Foreign Investment in Telecommunication Enterprises* issued by the State Council in 2001, foreign investors are prohibited from owning more than 50% of the equity interest in value-added telecommunication services such as Internet content providers (ICP). To overcome this problem, capital-thirsty internet companies in China turned to innovate a structure called Variable Interests Entities.

As shown in Table 3, major Chinese internet companies are all registered in offshore jurisdictions through a structure called the Variable Interests Entities (VIE) that ties together the offshore shell companies with their domestic operation arms. First pioneered by Sina in its IPO in 2000 (Jiang, 2012), the VIE structure is usually composed of an intermediary wholly foreign-owned entity (WFOE), which is a shell company registered in offshore jurisdictions with multiple operating entities registered in China (seen in *Figure 1* below). Through series of contractual agreements detailing the level of control and cash flow, the WFOE is linked to operating entity in China. Legally speaking, internet companies registered in offshore jurisdictions are considered foreign entities according to the Chinese law. The VIE structure thus kills two birds with one stone: it circumvents state-imposed foreign ownership

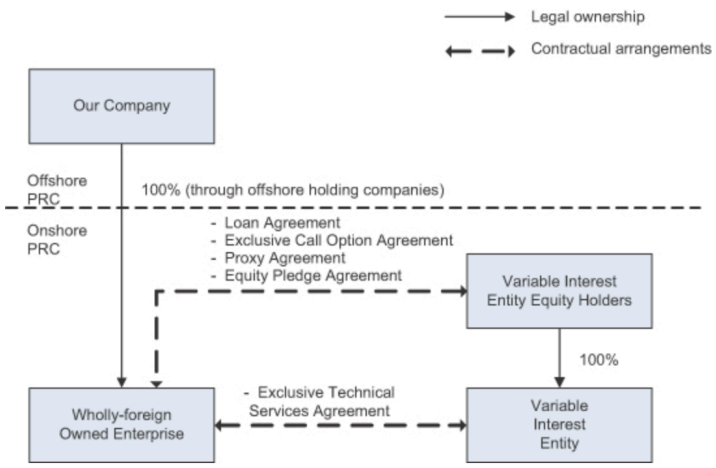
restrictions on domestic internet companies while guaranteeing profits and benefits distribution to foreign investors and leaving the control firmly in hands of the company owners. The design and setup of VIE structure demonstrates Chinese internet companies' reliance on offshore jurisdictions for relatively unfettered access to capital markets and to bypass national restrictions on foreign ownership. All these efforts eradicate frictions and increase the mobility for capital to move in and out and accumulate from the commercial internet industry in China.

Figure 1 Corporate Structure of Sina



Source: Sina Annual report, 2018

Figure 2 Corporate Structure of Alibaba



Source: Alibaba annual report, 2018

However, the complex and murky VIE structure generates many legal controversies in stock market regulation and is a major concern for foreign investors. Investors do not directly own shares in the operating entities in China but instead, in the WFOE. In fact, the first instance of a VIE dispute took place with Sina in 2001, when its board announced the decision to remove one board member and the Chief Executive Officer Wang Zhidong. Wang held 70 per cent of the shares in the Beijing-based Sina Internet Information Service Co. Ltd, a solely Chinese-funded business that obtained a license to operate and provide internet services to Chinese customers (People's Daily, 2001; China Daily, 2001). After claiming Sina's decision on June 4, 2001 was illegitimate, Wang Zhidong refused to relinquish control of the firm's Internet Content Provider license (as the license must be held by Chinese personnel). Wang later left Sina in 2001 while holding majority shares in the Sina Internet Information Service Co. Ltd.

Since then, foreign investors and stock regulators have struggled to protect their rights and control in publicly-listed Chinese internet companies under VIE arrangements. In 2010, without proper notification to its largest shareholders Yahoo! and Softbank, Alibaba's former

CEO Ma Yun divested its financial technology platform Alipay in order to obtain the required payment service license[13]. This case raised serious discussions about the protection of foreign investors' equity rights under the VIE arrangement (Shen 2012). In December 2013, the U.S. Securities and Exchange Commission demanded Baidu to disclose warnings and risks of the VIE structure for its investors (Casey, 2014). In 2015, just before Alibaba's IPO, the U.S- China Economic and Security Review Commission released a report warning about the risk posed by China's internet companies on U.S stock exchanges. The Commission questioned the legality and ambiguity of VIE structures (Rosier 2014).

The VIE structure also came under close scrutiny from different government ministries within China. Baidu's CEO Yanhong Li, proposed to cancel restrictions imposed on the VIE structure during the Two Sessions (National People's Congress and Chinese People's Political Consultative Conference) in March 2013 (Caijing Daily, 2013). But the Chinese government's attitude toward tighter regulation of VIE has been purposefully ambiguous. Different ministries and regulatory agencies came up with diverging opinions on the legality of VIE structure. For example, in 2009, the General Administration of Press and Publication clearly prohibited the VIE structure in the online gaming sector. The Ministry of Commerce and the China Securities Regulatory Commission have also discouraged VIEs, especially in the internet sector (Guo, 2014). Again in 2013, the Supreme People's Court ruled that contractual agreements between Hong Kong and Mainland companies were clearly intended to circumvent Chinese regulations and were tantamount to concealing illegal intentions with a lawful form. However, these opposing views died out after then State Council's Vice Premier Wang Qishan stated that 'current debate should respect history, recognizes the legality of VIE and regulates accordingly' (Sina, 2011). Without inter-bureaucratic agreements, the Chinese

[13] The license only grants to Chinese-owned online payment services.

government has not launched any significant efforts to systematically regulate the VIE structure.

The wide deployment of the VIE structure by major publicly-traded internet companies in China demonstrates the contradiction-ridden globalization process: companies take advantage of legal loopholes to circumvent national jurisdictions to maximize their worldwide hunt for capital and the state also safeguards the interests of these companies by leaving private companies much maneuvering space. The regulation of VIE structures in China defies the antagonistic portrayal of state-business relations. Instead, the government is in fact siding with the interest of big companies. As Yu Hong (2017a) puts it: "although creating friction, state actions collude with corporate interest on making the Internet an omnipresent vehicle of accumulation and enlisting private and transnational capital as stakeholders (1500)." Such processes also transform and expedite the capitalization of Chinese internet companies and their integration with global capital markets, therefore giving rise to another interconnected yet analytically distinct process of financialization.

Financialization and the Coming of Age of Chinese Investors

Financialization denotes the extraordinary growth of the financial sector and financial assets relative to the industrial and other sectors of the economy over the past 25 years (Fitzgerald, 2012). Financial institutions have also become major owners of industry and assets (as creditors and shareholders). Global financial institutions not only play a crucial part in assisting Chinese internet companies to seek capital through stock listings, they also own and invest in these companies. As financialized public-traded entities, the imperatives of these Chinese internet companies are to maximize shareholder value and market capitalization, and many of them have become avid investors themselves by latching onto investments as key strategies driving company development and expansion in the emerging markets.

Table 4 identifies and traces significant ownership changes for large Chinese internet companies since the year of their IPO. Secondary to founders and key management personnel, financial institutions, banks and venture capital fund hold significant shares in publicly-traded internet companies in China over time. For example, SoftBank owns nearly one third of Alibaba; SB Pan Pacific corporation owns nearly 40 percent of Renren, and JP Morgan Chase also holds nearly 6 percent of Tencent's share. Transnational media and internet companies are also among the largest shareholders, such as Yahoo's 15.4 percent shareholding in Alibaba and Nasper's 33 percent shareholding in Tencent. The transnational ownership structure is a significant characteristic of publicly-traded Chinese internet companies. It further illustrates the financialization of the commercial internet in China as the financial sector reins entities in through equity ownership, they further integrate and embed Chinese internet companies into the dynamics of global capitalism.

Table 4 Major Ownership Changes for Publicly Listed Chinese Internet Companies

Alibaba	**2014**	**2016**	
Yun Ma	8.9%	7.8%	
Joseph Tsai	3.6%	3.2%	
SoftBank	34.4%	32%	
Yahoo	22.6%	15.4%	
Baidu	**2008**	**2010**	**2011**
Yanhong Li (Handsome Reward Ltd)	16.2%	16.1%	16%
Greg Penner	3.4%	1.0%	
Morgan Stanley	5.1%		
Baillie Gifford		7.5%	7.5%
T. Rowe Price Associates			6.9%
Cheetah Mobile	**2014**	**2015**	**2016**
Kingsoft Corporation Limited	46.9%	47.4%	47.2%
Tencent Holdings Limited	16.5%	16.5%	16.5%

NetEase	**2013**	**2015**	**2016**
Lei Ding (Shining Globe International Ltd)	44.8%	44.3%	44.4%
Orbis Investment	12.8%	7.8%	
Capital Research Global Investors	6.5%		
Lazard Asset Management	5.5%		
Renren	**2011**	**2016**	
Joseph Chen	22.9%	30.9%	
James Jian Liu	2.7%	4.8%	
David Chao	7.6%	8.8%	
SB Pan Pacific Corporation	45.2%	39.5%	
DCM and affiliates	7.4%	8.6%	
Sina	**2011**	**2016**	**2017**
Charles Chao (New Wave MMXV Ltd)	8.66%	2.0%	16.6%
Schroder Investment Management North America			5.6%

Sheng Global Limited	5.6%	7.7%	6%		Macquarie Group			5.5%
Matrix Partners Funds	5.7%				Platinum Investment		6.4%	
Sheng Fu	8.1%	8.2%	6.8%		BlackRock		8.3%	
Daivd Ying Zhang	5.7%	1.9%	1.9%		Thornburg Investment		7.0%	
Ming Xu	4.0%	4.2%	3.7%		T. Rowe Price Associates	7.83%		
Jun Lei		1.2%	1.2%		Orbis Investment Management	5.47%		
Sohu	**2002**	**2005**	**2016**		**Tencent**	**2004**	**2010**	**2016**
Charles Zhang	25.6%	26.6%	20.06 %		MIH QQ (BVI) Limited	35.71%	34.33%	33.25%
Maxtech Enterprises Ltd	20.3%	30.9%			Advance Data Services	13.74%	11.16%	8.73%
Intel Corporation	9.4%				Best Update International	6.12%		
Edward Roberts	3.9%	3.29%			ABSA Bank Limited		10.08%	
George Chang	18.3%	21.7%			JPMorgan Chase		5.01%	5.97%
Orbis Allan Gray			20.43 %					
Macquarie Group			10.2%					
Renaissance Technologies			9.41%		**Weibo**	**2014**	**2016**	
Hillhouse Capital			6.59%		Sina Corporation	56.1%	49.8%	
Fosun International			4.98%		Ali WB Investment Holding	31.4%	31%	

Sources: compilation of corporate annual reports and prospectus

The injection of foreign investment capital fortifies the accumulation imperative of Chinese internet companies. The workers in internet companies talk the common talk of monetization (变现)[14] as the golden standard of survival in the industry. As scholars observe, social imaginaries of the internet in China have shifted to an increasingly neoliberal spirit, to endorsing technocrats with entrepreneurial spirit jumping into the 'sea of internet start-ups' and exploring ways to attract international and domestic financial capital (Wu & Yun, 2018; Xia, 2018). New ideas for internet usage are increasingly measured not by their use value for society, such as ameliorating public service or public sphere, but by their potential ability to cash out and attract heavy investment as soon as possible (Meng & Huang, 2017; Xia, 2018).

The financialization of Chinese internet companies shapes their growth and expansion strategies both domestically and globally. Major internet companies are adopting acquisitions

[14] Based on field interviews

and investments as means to establish market domination (Xia & Fuchs, 2016; Jia & Winseck, 2018). The three leading internet companies, Baidu, Alibaba and Tencent demonstrate characteristics of monopoly capitalism with the acquisition of 75% of all successful start-up companies in the country, subsuming market competition (Xia & Fuchs, 2016). Mergers and acquisitions activities are at a historical high from 2014 to 2016, incurring high debt levels and an increasingly concentrated internet market in China (Jia & Winseck, 2018). Waves of consolidation create huge conglomerates that excite the stock market valuation and light the key indicators of an internet bubble. A great divergence between profitability and the stock values of a handful of publicly listed Chinese internet companies is jarring: the stock value was 124.79 times higher than the average income (Xia & Fuchs, 2016). For example, as of 2019, Alibaba reaped a market capitalization of $567 billion, approximately 48 times of its net income of USD $11955 million, whereas Tencent's market capitalization (USD $509 billion) in 2019 was roughly 38 times its net income (USD$13422 million). Comparatively, the disparity between market capitalization and net income for Amazon in 2019 was 83 times, Alphabet 27 times, and Facebook 32 times.

In addition to the impact on market structure, private Chinese internet companies also turn to financialized strategies as an additional business model. This change constitutes the financialization of internet companies in China as many non-financial corporations bought into the financial frenzy and increased their purely financial investments, to an extent that an increasing portion of their profits came from capital gains or dividends (Krippner, 2005). Alibaba, Tencent, Baidu, Sohu, NetEase, Sina have all set up venture capital (VC) units to fund technology start-ups (Tang, 2019). Venture capital not only helps Chinese internet companies to stay afloat in the fast-changing competitive landscape by investing in successful start-ups and potential competitors, it also becomes a lucrative revenue stream by cashing out

on the IPOs of investee companies. In 2017, Baidu established Baidu Venture, which focuses on artificial intelligence, one of the core technologies the platform is pursuing. In 2018, its Venture fund was one of the world's most active investors in AI when counting the number of deals.

Tencent stated in its annual report in 2014 that investment is one of the key strategies for company development (Tencent, 2014). The company designated Martin Lau Chi Ping as the Chief Strategy and Investment Officer, with responsibility for corporate strategies, investment, merger and acquisitions. Lau Chi Ping's prior experience includes employment at McKinsey & Company and Goldman Sachs investment banking division and the Chief Operating Officer of its Telecom, Media and Technology Group. In 2018, Tencent initiated a strategic organizational upgrade to extend its strengths in consumer and industrial internet and stepped up investment in innovation and technologies and investment in portfolio (AP, 2019). By 2019, Tencent invested in more than 700 companies – more than 100 investee companies were valued at more than USD 1 billion each, and 63 of them went public. The company reaped 38% of its quarterly profit with its investment in Meituan Dianping's IPO (Chen, 2019). The increasing centrality of investment strategies in Tencent's growth strategy attracts criticism as the company shifts focus from product development to investment (Lucas, 2018; Chen, 2019). Globally, Tencent (with 46 investments made) is the number two investor in global unicorns[15], trailing only behind U.S Sequoia Capital with 92 investments, surpassing SoftBank (42), Tiger Fund (36), International Data Group (31), Goldman Sachs (24), and Alibaba (22) (Li, 2019).

[15] Unicorns are startup with a valuation of over 1 billion USD. There were 452 unicorns in 2019, according to TechCrunch (Teara, 2019).

Figure 3 and 4 indicate the income from investment recorded for Tencent and Alibaba. Since 2017, income from investments increased substantially. Notably, in 2016, Alibaba's interest and investment income rose to RMB 52254 million and this was due to the deconsolidation of two entities: Alibaba Pictures and Alibaba Health. Tencent, on the other hand, has profited from the initial public offerings (IPO) of two of its subsidiaries: China Literature in 2017 and Tencent Music in 2018.

Figure 3 Tencent Investment Income vs. Gross Profit (in RMB million)[16]

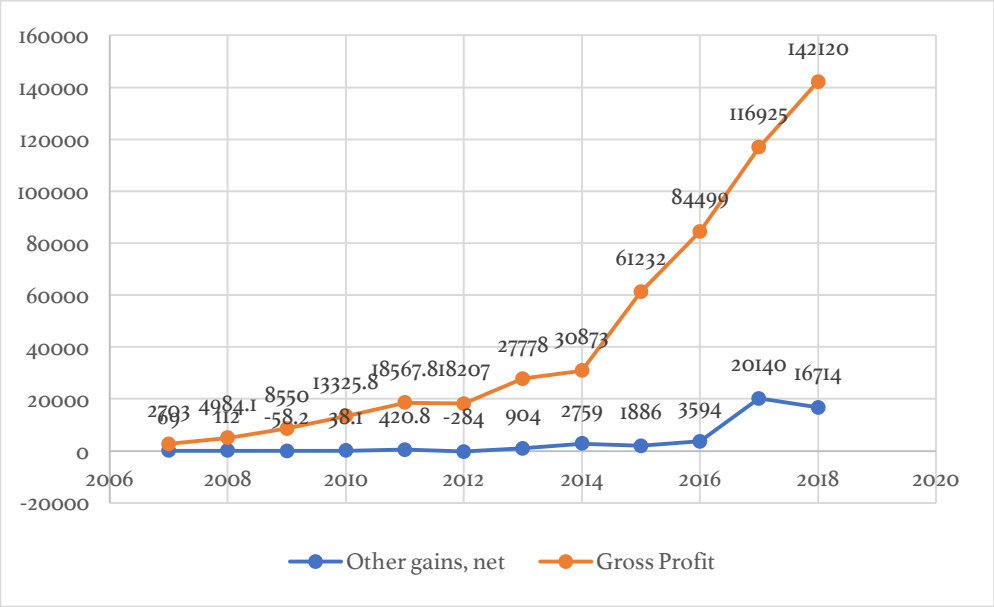
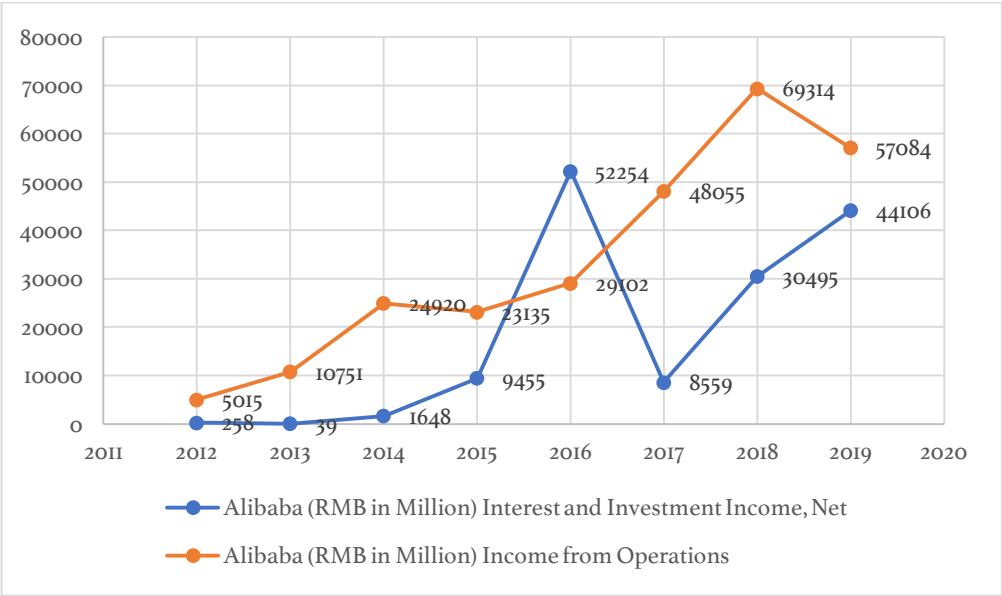


Figure 4 Alibaba Interests and Investment Income vs. Income from Operations[17]



[16] Tencent and Alibaba are listed on different stock exchanges, therefore the variations in accounting standards. The definition of "other gains" according to Tencent's annual report is: "when the financial asset is derecognized, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss and recognized in 'other gains (loss), net" (Tencent, 2019, p.160). Tencent's value gain from the IPO of previously-invested Meituan Dianping (food delivery app), were reported under Other Gains category.

The growth of internet companies in China accelerates Chinese capital's global hunt for profit, driving up their overseas activities including purchases, strategic investment, as well as leveraging mergers and acquisitions as a way to tap foreign markets and establish brand recognition. The financialization of Chinese internet companies has generated contraflow of capital from China outward.

In the early 2000s, the commercial internet first took off in China and Chinese internet companies were a conduit through which transnational media giants tapped the Chinese market. Yahoo! invested in Alibaba to enter the Chinese market in 2005 and it remained as one of the shareholders for Alibaba. News Corp initially entered Chinese market through a joint venture with the *People's Daily* newspaper and NetEase. Soon after the joint venture, in 2003, NetEase launched a share buyback program of all of News Corp's stake and NetEase was able to display $2 million worth of advertising on News Corp's Asian television properties (NetEase, 2003). Purchasing NetEase's share was one of News Corp's strategies to tap the Chinese market and a way to court the Communist Party after it entered a joint venture with the *People's Daily* newspaper. In 2001, News Corps made headway in the Chinese telecommunication market by acquiring a 12.5 per cent stake of China Netcom, even though the deal was illegal back then, as Chinese Telecommunications Law forbid foreign investors to win any part of the country's basic telecom network (Lin, 2007). In sum, commercial internet in China in the 2000s was largely regarded as an overseas market in the global media conglomerates' business expansion plans.

Similar to the foreign entry modes of mainland Chinese enterprises (Yeung & Liu, 2008), Chinese internet companies commonly employ mergers and acquisitions to globalize

[17] Alibaba's "Interest and Investment Income, Net" consists of interest income, gain or loss on deemed disposals, disposals and revaluation of long term equity investments and impairment of equity investments (Alibaba, 2019, p. 131).

their businesses. Gu and Frank (2006) point to how "foreign companies are increasingly buying Chinese assets as a way to tap into China directly" (p. 135), epitomized by eBay and Amazon's acquisitions of Chinese internet companies. Emerging major internet companies in China are buying their way into overseas markets. For example, Tencent has made significant investments in Russia (Digital Sky Technologies, Mail.ru), India (Practo, Flipkart, Ola), the U.S. (Snapchat, Whisper, Epic Games), Canada (Kik Interactive), South Korea (Kakao Talk), and an 8.6 billion USD acquisition of Finnish Supercell games. Via strategic investments and acquisitions, after decades of having no presence in the game industry, Tencent has become the number one game publisher in the world in a matter of years (Nieborg et al 2020). Baidu, on the other hand, has launched search services directly in Japan, Thailand, Egypt, and Brazil. While none of these efforts have yielded significant success, the undeterred Baidu also indirectly invested in Uber in the US, Israeli companies (e.g. Carmel Ventures, Pixellot, Tonara, Taboola, Outbrain), Japanese company PopIn, and Brazil's Peixe Urbano. Alibaba is also a big spender on mergers and acquisitions. The company reached a record of 74 deals of investment and mergers and acquisitions in 2017, focusing on offline retail companies and various e-commerce ventures (Soo, 2018).

These large overseas purchases have made ICT and software services in China one of the most vibrant sectors by measures of outward foreign direct investment (OFDI). In 2015 and 2016, the number of mergers and acquisitions deals in the software and ICT sector jumped from 58 to 109, and the values of these M&A represent 15.5% and 19.5% of the OFDI of the respective year (Table 5). This represents a drastic change in the weight the software and ICT sector carries historically in China's OFDI (seen in Table 6). Whereas in 2017, there was a sharp drop in the sector's M&A value due to state regulation. In 2017, the National Development and Reform Commission, Ministry of Commerce, People's Bank of China and

the Ministry of Foreign Affairs together issued the *Guiding Opinions for Directing and Regulating the Direction of Overseas Investments*, codifying investment in real estate, entertainment, sports, and motion picture production as "sensitive" categories, further tightening the supervision of OFDI.

Table 5 Number of Deals and Value of M&A in Software and ICT Sector (in billion USD), 2013-2017

	2013		2014		2015		2016		2017	
	Deal	Value	Deal	Value	Deal	Value	Deal	Value	Deal	Value
Software and ICT	23	21.9 (4.1%)	36	35.7 (6.3%)	58	84.1 (15.5%)	109	264.1 (19.5%)	42	61.2 (5.1%)

Sources: compilations of annual Statistical Bulletin of China's Outward Foreign Direct Investment, 2013, 14, 15, 16, 17 (Ministry of Commerce of People's Republic of China, 2014, 2015, 2016, 2017, 2018)

Table 6 China's OFDI (in billion USD), 2004-2012

Sector	2004	2005	2006	2007	2008	2009	2010	2011	2012
Manufacturing	75	228	90	212	176	224	466	704	866
Agriculture	28	10	18	27	17	34	53	79	146
Mining	180	167	853	406	582	1334	571	1444	1354
Energy	8	8	12	15	131	47	100	188	194
Transportation	83	58	138	407	266	207	566	256	299
Finance			353	167	1405	873	863	607	1007
Software and ICT	3	1	5	30	30	28	51	78	124

Source: 2012 Statistical Bulletin of China's Outward Foreign Direct Investment (Ministry of Commerce of People's Republic of China, 2013, p. 44)

To reform the regulatory framework to catch up with volatile capital flows and investments in internet and ICT sectors, as part of the capital market reform, in 2019, the National People's Congress passed the draft of *Foreign Investment Law*, which is to be implemented on January 1, 2020. The new *Foreign Investment Law* (State Council, 2019) replaced three pre-existing laws: *Law on Sino-Foreign Equity Joint Ventures*, the *Law on Sino-Foreign Contractual Joint Ventures* and the *Law on Foreign-Capital Enterprises*, with the goal to level the playing field for foreign investment in China, giving equal treatments to foreign investors in market access and government procurement. The new law also introduced the

negative list approach as an improvisation of the previous catalogue approach. Various types of media holdings, such as news organization, publishing, broadcasting and satellite transmissions, TV programing and film production, as well as internet publishing of news, audio-visual programming, public information, telecommunication services and VATS (with a cap of 50%) are on the negative list (National Development and Reform Commission, Ministry of Commerce, 2019). Previously, foreign investment in China followed the catalogue approach issued jointly by the National Development and Reform Commission (NDRC) and Ministry of Commerce (MOFCOM). The *Catalogue for the Industrial Guidance of Foreign Investments* (National Development and Reform Commission, Ministry of Commerce, 2017) provides four categories: encouraged, permitted, restricted, and prohibited. News organizations, publishing and broadcasting industries, and internet news, online publishing, audio-visual content, internet access are on the prohibited list, which means they are not open to foreign investment (Liu, 2018).

The development of large internet companies in China expedites globalizing dynamics, where the global flow of **capital**, **technology** and **expertise** provide instrumental supports in the commercial success of these companies. Meanwhile, as the domestic market consolidates in the hands of a few homegrown market players, the deep-pocketed Chinese internet companies have become avid investors in the global tech start-up scene, representing a unit of Chinese capital in shaping the contour of global internet development (Tang, 2020). Therefore, private internet companies in China represent both the *continuation* of the state's historical strong hold and control over its domestic communications sectors and the *disruption* of state-imposed media industry regulation and globalization agenda. The policy challenge that the Chinese government faces is: how to secure political control as increasing global flows

and connections have come to underpin the financialization and development of its domestic internet companies?

A Strong Home Market and Sovereign Internet

Regime of Internet Content Control

The development and regulation of the internet in China is characterized by the evolving dialectics between greater openness and tighter control. The internet was first connected in China in 1987, in the middle of the country's market reform and opening up. With the ongoing marketization of Chinese communication industries, the state has allowed foreign capital to play an active role in shaping the development trajectory of the internet in China (Harwit, 2008; Jiang, 2012; Creemers, 2019). The engagement of foreign capital and private enterprises distinguishes the internet from other state-owned and -controlled media sectors. This means that the Chinese government needs to devise its efforts to safeguard the Party's political control without tarnishing the commercial viability of the internet.

To achieve these dual goals, the Chinese government has deployed technical measures, regulatory mechanisms and institutional reorganizations to ensure political control of the internet while it leveraged capital market reform and tolerated certain (illegal or extralegal) capital activities as long as they enforced the commercial interests of Chinese internet.

China has put in place a nation-wide surveillance infrastructure, commonly known as the Great Firewall, with devices and technical support from Western companies such as Cisco and Sun Microsystem. All web traffic passes through one of eight state-monitored gateways that connect the Chinese internet to the global ones. China's internet regulation framework is characterized by a stringent liability regime that holds companies responsible for retaining identifiable user information and monitoring online content deemed sensitive and unlawful

by the government. In terms of governing institutions, the Chinese government re-establishes and re-affirms its control and command through the centralization of the previously dispersed and chaotic regulatory authorities. Meanwhile, to fortify the commercial development of the Chinese internet, the state shapes the capital market and foreign investment rules to encourage flows of capital.

Appendix B showcases current regulation over the Chinese internet, which is comprised of various laws, administrative laws, department rules, legal interpretations and regulatory documents. Although the regulatory authority over the internet in China is spread across many ministries and organizations, it has become centralized as President Xi Jinping established the Cyberspace Administration of China and State Internet Information Office in 2012. Xi personally chairs the Central Leading Group for Cybersecurity and Information. This Leading Group was later upgraded into the Central Commission for Cybersecurity and Informatization and is under direct supervision by the Party's Central Committee to further centralize authority to settle turf battles among different government agencies regarding internet regulation (Miao & Lei, 2016).

There are two historical periods when the Chinese government engaged in intense policy-making to establish and codify control over the internet. The first period is around the early 2000s. A raft of regulations was put in place hastily prior to China's accession into the WTO, establishing a framework of content control that holds Internet Service Providers (ISP) accountable for monitoring online activities and keeping records on their servers for 60 days. The second period is from 2012 to 2018; the number of regulations spiked, which led to the tightening of the liability regime for internet companies, especially with regards to online content. Several categories of content providers are under strict licensing regulations, namely: provision of online news, production and distribution of audio-visual content online, and

domestic providers of financial information, such as financial data, news, analysis and trading strategies are subject to rules that govern mainland-based foreign bureaus. Websites hosting this content are subject to varied forms of punishment if they fail to comply, from fines to withdrawal of licenses and temporary shutdowns.

The Chinese government frequently uses a "campaign-style"[18] of regulation to fine, summon, and punish domestic companies. In 2018, the government cracked down on celebrity gossip blogs and entertainment-related social-media accounts. The scope of regulation expands to mobile internet and audio-visual content, from news to financial information, etc. The state regularly clamps down on online content and regulates the spread and circulation of rumors and online satire content and orders leading internet companies to suspend comment functions to clean up questionable content. The regulation on virtual private networks (VPN) is further tightened in 2017 in the *Provisional Regulations of China's Administration of International Networking of Computer Information*, outlawing non-government approved virtual private networks. Internet companies, both domestic and foreign, are required to establish Party units within their managerial organizations[19] (Martina, 2017). The purpose, according Chinese government information office, is to let party organizations advise company managers on government policies and help businesses cultivate talent and resolve frictions with workers, without interfering with the management of foreign companies and joint ventures (Wong & Dou, 2017). With many remaining skeptical about the state's claimed role, the establishment of Party units nonetheless represents an advance of Party

[18] Campaign-style describes a type of top-down regulation that is periodical, focused on the short-term, rather than long-term results (Xu, Tang, & Guttman, 2019), such as various campaign to clear online rumors and pornographic content.
[19] Many foreign enterprises in China have established Party unit, not limited to internet businesses, such as Disney, L'Oréal, Samsung and Nokia.

control and influence. National security and economic development overshadow each other in making the case for the growth of protected, national internet economy.

The scope of regulation expands over time, touching every corner of internet use, from access (VPN), production of content (licensing rules), distribution (liabilities) and consumption (real name registration rules, online rumor regulation). Meanwhile, how the government intervenes and enforces regulation has also changed. The *Provision on the Interview of Entities Providing Internet News Information Services* formulated in 2015 provides the regulatory support for a State Internet Information Office or a local Internet Information Office to summon, warn, rectify and correct the wrongdoing of internet news information services prior to legal punishment. This piece of regulation provides a warning system and a buffer to law enforcement to avoid the social unrest caused by government shutdown of popular internet websites or services. An example is Neihan Duanzi, an app owned by Bytedance that was shut down for hosting vulgar jokes and videos and failing to respect "core socialist values". The shutdown of this app caused social unrest for online subculture communities and many went into the streets to protest by honking rhythmically at crowded street intersections (Zhong, Mozur, & Zhao, 2018). In 2018, the Ministry of Public Security put forth the *Provisions on Internet Security Supervision and Inspection by Public Security Organs*, allowing central and local public security authorities to enter the premises of all internet service providers to inspect, look up and copy information considered relevant to cybersecurity. These policy measures further justify and legitimize the state's intervention, inspection and regulation over domestic companies and demonstrate the central tenet of cyber governance, where the "cyberspace is not beyond the law" (互联网不是法外之地). By delegating the responsibilities to manage and censor online content to private internet companies, it does not only lead to self-censorship and pre-emptive censorship but also incurs

large labor and financial costs for companies to diligently follow the government's order. Research has found filters for both text and image content installed on the country's most popular chat application WeChat and other foreign-owned and operated chat services such as Skype (Knockel, et, al., 2018; Ruan, et, al., 2016).

Capital Market Regulation

Despite the strict control regime, Chinese internet companies still experienced phenomenal growth with China's large online population. The leading Chinese internet companies rival those of the West in terms of market capitalization, revenues and user populations. This means that internet companies in China not only need much capital to finance their growth and expansion but also increasingly become poles of growth that foreign capital is after for returns. Predating the internet era, one of the key problems that hinders the development of telecommunications is the lack of access to capital for two reasons: limited state investment and restriction for foreign investment. As per State Council regulation in 2000, domestic firms must gain approval from the Ministry of Information Industries (MII) before they are allowed to receive foreign capital (CNN Money, 2000), cooperate with foreign businesses or list domestic or overseas stocks in the *Administrative Measures for Internet Information Services*. This ruling gives MII an effective veto over foreign investors, although this rule has been applied lightly, tolerating China-based stocks in overseas jurisdictions (Hughes, 2004).

The reform of the capital market in 2017 and 2018 elucidates the Chinese government's quest to reap greater economic benefits as well as keep companies in check, as noted in one of the key documents *Unleashing China's Capital Markets to Build a Cyber Superpower*. This guiding opinion stipulates a stock market reform to loosen the requirements for tech companies to go public. The China Securities Regulatory Commission (CSRC), People's Bank of China, and

Shanghai City Government propose the reform of the Technology Innovation Board on the Shanghai Stock Exchange. The goal is to create a looser regulatory environment than many other counterparts, such as Hong Kong Stock Exchange, for the regulators to relinquish responsibilities in assessing the applicants' earnings potential and let the market decide the worth (He & Wei, 2019). By lessening the entry requirements on the stock market, the Chinese government aims to bring back internet companies that are listed overseas to install leverage into the capitalization and privatization of Chinese internet companies. Overall, the strict content control regime walled off foreign competitors while lax ownership and foreign investment rules removed barriers for Chinese internet companies to seek capital globally.

The engagement with and embeddedness in global finance networks signals the deepening of commercialization and capitalization of the internet in China and it reaffirms the important role the communication sector, especially internet and ICT carries in China's re-integration with global capitalism, as Hong (2017) and Zhao (2007) argue. Monetization, the pursuit of profit and overseas listing has been the talk of the town and is emblematic of the zeitgeist of internet entrepreneurs in China, especially after Premier Li Keqiang put forth the *Mass Innovation and Entrepreneurship* (大众创新，万众创业) guideline in 2014. The guideline called for more people to start science and technology businesses to 'transform their talent into productivity' (Xinhuanet, 2015). The officialdom has embarked on commercialization and consumerism of the internet as technical solutions for China's economic stagnation and many other social ills (from social credit score system, public service offering, rush-hour congestion problems, to rejuvenating state-owned businesses)—all there is to show that commercial development and success of the *domestic* internet in China is in no way contradictory to, but sometime complementary to political control.

Conclusion

It is in the political and economic interests of the Chinese government to secure and build a strong domestic internet industry and foster globally competitive Chinese internet platform companies. Domestic internet companies already hold much sway in China's internet governance agenda on the global stage (Shen 2016), in domestic policy arena (Hong 2017a), and in helping state economic transition and upgrade (Hong 2017c).

Domestic internet companies' development is streamlined into government initiatives and projects. Alibaba and Tencent, for example, are assisting local police in the state-led Smart Cities project by providing surveillance networks and cloud-based data system to use facial-recognition programs to identify and arrest criminals and to track and forecast movement of crowds (Lin & Chin, 2017). As well, the government handpicked five tech companies to co-develop an artificial intelligence open innovation platform: Baidu for self-driving cars; Alibaba for smart city; Tencent for medical imaging; SenseTime for smart vision and iFlyTek for voice recognition (Xinhua News Agency, 2017). The five-company national AI team was later upgraded to include 15 domestic tech and internet companies[20], suggesting close symbiosis between national tech development and leading domestic companies.

Further, the construction of the Social Credit System (SCS), a national project that sets a comprehensive outline for the establishment of data infrastructure for credit scoring, set in motion close public-private collaborations (Ahmed, 2017; Liang, et al. 2018). Established in 2015, the infrastructural backbone of the SCS is the National Credit Information Sharing

[20] The new additions are Yitu (vision computing), Ming Lue Technology (smart marketing), Huawei (software and hardware), Ping An (inclusive finance), HKVision (video perception), JD (smart supply chain), MegVii (image perception), 360 (cybersecurity), TAI (smart education) and Xiaomi (smart home) (Larsen, 2019).

Platform (NCISP), which connects 42 central agencies, 32 local governments, and 50 market actors. Leading platforms such as Alibaba and Baidu also share data with the NCISP.

As privately held and publicly traded entities, Chinese internet companies' worldwide pursuits of capital and profits clearly differ from the state's agenda of national tech power construction and its outward projection, therefore creating frictions, disagreement and conflicts in many cases (see for example, Hong 2017a, Tusikov 2019, Gu 2018). Yet, private internet companies and the state share mutual interests as the Chinese government envisions a global developmental view and realization of its cyber sovereignty, captured in official discourse such as "building community of common destiny" (Hong and Goodnight 2019). This co-dependence between state and domestic internet giants is shown in the presence of Chinese internet entrepreneurs, products and services in state-level visits, such as Baidu's launch of its Brazilian search service Busca in Xi's visit to Brazil and Malaysian Prime Minister Mahathir Mohamad kicking off his visit to China at Alibaba. The coin of the term "internet diplomacy" further showcases the overlapping geopolitical ambitions between the quickly globalizing Chinese internet companies and the Chinese state.

Historically, the communication industry has long been designated an instrumental role in the nation's modernization and rejuvenation development. Under the contemporary political and economic context, the Chinese government has recognized and emphasized the role of internet and information and communication technology in facilitating the upgrade of China's economic structure, in better governing, controlling and managing public opinion and public service provision. China's ongoing media reform and accession into the WTO further privatizes, liberalizes and recalibrates the communication industry towards a more profit-driven path of development. Follow this restructuring of the communication industry, internet development in China takes up the liberal ethos while hastening the state's reach and

control of various online spaces and services, from the imposition of a stringent liability regime, to the innovation of state's regulation mechanism, to (in)direct supervision onto the business operation of internet companies in China.

Chinese internet companies, on the other hand, successfully marry the political objectives with commercial imperatives. One of the examples is the creation of Studying the Great Nation (学习强国) mobile application by Alibaba. The app became the most downloaded application on the Apple App store with more than 100 million registered users. App users clock hours by studying Xi JinPing thought, reading official speeches and watching videos. Time spent on the app will be converted into numeric points, which are integrated as a metric in school and workplace evaluation. The app capitalizes on the political goal of reinforcing Party's rule and ideology. The re-appropriation of Mao Zedong's "Little Red Book" (小红书), a collection of aphorisms of Mao's thoughts regarding class struggle and revolution, is now the name of an app for consumers to share their reviews of shopping experiences, such as fashion, beauty, food and travel. Internet companies themselves have become the platform for capital accumulation while concomitantly shouldering the state-designated role of maintaining the ideological hold of the Party state, rejuvenating the stagnant national economy and assisting the industrial upgrade of traditional industries. As epitomized in the most recent Belt Road Initiatives, internet companies not only offer infrastructures for globalization but also support the grand policy discourse of "inclusive globalization" that serves both the interests of the nation and the companies.

Analysis in this chapter shows the Chinese state has great flexibilities in allowing the entry of foreign investment and human capital to jump start the domestic commercial internet industry. In so doing, it allows the Chinese internet to be the pillar industry to partake in the transnational expansion of capitalism both within China and as China projects its power

outside. As private domestic internet companies received sizeable investment in developing their economies of scope and scale, the Chinese state then harnesses their global reach and influence to build a strong national communicative space domestically and to expand the nation's soft power globally. Here, the state plays a key role through implementing liability regime, content control, and improvising the way of policing and supervising market players to secure its control. However, this dance between the degree of flexibility and tightening of control evolves over time. The next chapter examines this set of tensions in how the national evolving institutional settings adjust to and allow capital to pry open its internet sector as a modality of financial growth. Focusing on a key step in processes of capitalization of China-based internet companies, the initial public offering, the next chapter examines how capital markets securitize business risks associated with state-imposed regulation and control of Chinese internet companies.

Chapter Four: Capitalizing the Chinese Internet: Risk Accounting in IPOs

The development of the Chinese internet is shaped by the path-dependent institutional context of state intervention, media control and the opportunities brought by globalization. In the post-WTO era, the birth of many Chinese internet companies benefits from the fortified flow of goods and services, overseas-educated tech know-hows, and foreign capital. Chinese internet companies thereby quickly capitalize through inserting themselves into global capital markets, as recipients of foreign investment, issuers of stocks, and as investors in venture capital funds. The capitalization process subsumes the Chinese internet companies in capital circulation and accumulation, subjecting them to strict financial disciplines and competitions with players in the same sector and with other industries on the capital market.

This chapter studies the Initial Public Offering (IPO) as a key moment in Chinese internet companies' capitalization processes. Stock listing does not only alter the operational logic of the company and introduce additional financial and regulatory oversights, but also signifies the broader transformation of the internet into a platform for transnational capitalism accumulation. However, the capitalization process does not unfold naturally. Capital entry is a process negotiated between state actors and internet companies within a given historical context. This chapter traces the historical changes captured in the IPO process in domestic regulatory framework on foreign listing rules, as well as the regulation, business model and market conditions of the internet sector in China since the early 2000s. The risk disclosure of Chinese internet companies in their registration statements crystalizes how improvisations are being made in their internal reorganizations and restructurings to answer

to state regulation and to meet capital market's demand. These efforts eradicate barriers to capital flow and increase capital liquidity and therefore readied the Chinese internet industry for the entry into the global capital market.

As part of the globalization process, to understand these changes over time is to look at how state actors and foreign capital co-shape the capitalization of Chinese internet companies. As Carlota Perez (2009) writes: technological innovation is swiftly followed by financial innovation as finance rapidly invents, learns and diffuse new ways of providing venture capital, of attracting new investors and capital to the market and of leverage, handling, hedging and spreading risk (p. 781). This chapter examines the historical process that Chinese internet companies were immersed in as capital's next destination for growth and return and how the process is influenced by the state's evolving regulation.

Note on Method

This chapter provides a meso-level analysis by systematically examining the initial public offering documents of ten publicly listed companies: Sina, Sohu, NetEase, Tencent, Baidu, Weibo, Alibaba, Cheetah Mobile, iQiyi and Pinduoduo. The selection of these ten companies represents the diverse business scale (revenue and market share) and respective markets that they are operating in (such as online content, value added services, e-commerce, search, social media, utilities, and video streaming) (see Table 8). The difference in the founding year of these companies also constitutes a key temporal dimension that expands from the earliest IPO in the history of the Chinese internet to the most recent ones. The group of selected Chinese internet companies takes into consideration different market capitalization processes and a geographic diversity in stock listing destinations (see Table 7). In sum, the selection of companies typifies the expanding global search for and penetration by capital in the emerging Chinese internet. It also shows the historical differences in how

capitalization unfolds amidst shifting institutional environments, namely, changing regimes of internet regulations in China, including but not restricted to content, foreign ownership and capital market regulation.

Table 7 Listing Information of Examined Chinese Internet Companies

Company	Listed	IPO Year	IPO Raised	Underwriters	Registration	Market Cap*
Sohu	NASDAQ	2000	59.8M	Credit Suisse First Boston LLC	Delaware	571.17M
Sina	NASDAQ	2000	66M	Morgan Stanley, China International Capital Corporation	Cayman Islands	3.394 B
NetEase	NASDAQ	2000	69.75M	Merrill Lynch, Deutsche Bank	Cayman Islands	33.62 B
Tencent	HKSE	2004	199M	Goldman Sachs	Cayman Islands	412.81B
Baidu	NASDAQ	2005	109M	Goldman Sachs, Credit Suisse First Boston LLC	Cayman Islands	42.08B
Weibo	NASDAQ	2014	286M	Goldman Sachs, Credit Suisse First Boston LLC	Cayman Islands	11.83B
Alibaba	NASDAQ	2014	25B	Credit Suisse First Boston LLC, Deutsche Bank, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Citigroup	Cayman Islands	424.21B
Cheetah Mobile	NYSE	2014	168M	Morgan Stanley, JPMorgan, Credit Suisse	Cayman Islands	711.31M
iQiyi	NASDAQ	2018	2.3B	Goldman Sachs, Credit Suisse, BofA Merrill Lynch	Cayman Islands	14.04B
Pinduoduo	NASDAQ	2018	1.63B	China Renaissance, CICC, Credit Suisse, Goldman Sachs	Cayman Islands	23.97B

*Market Capitalization as of May 2019; Yahoo Finance

The list of key first-hand documents examined in this chapter are these ten internet companies' registration statements (the S-1 document under the regulation of United States Securities and Exchange Committee and the "Final Prospectus" for Hong Kong Stock Exchange). Existing literature has employed internet companies' registration statements to study their discursive and performative value by focusing on founder's manifesto and CEO letters to shareholders (Dror, 2015). Prospectuses also serve as a historical record containing the companies' pre-corporation history and changes in value propositions (Elmer, 2017; Elmer, 2019). Moreover, research outside media studies incorporates the "risk disclosure" in the prospectus as an important source to grapple with the business model and privacy protections and contextual information of the company that are sometimes not made clear publicly (O

Fathaigh, Van Hoboken, & Van Eijk, 2018). This analysis relies on company prospectuses as a key source of information, revealing critical information on each company's financial information and positions, ownership information and potential risk factors.

As Chinese internet companies are often regarded as highly opaque and secretive in their operations and in disclosing the government directives received, the risk section provides a forthcoming source of information. The financial information provided in the IPO prospectus usually dates a few years before the listing date. Therefore, it shows whether and how the business model has changed immediately prior to the financialization. The ownership information reveals basically who owns how much of the companies. A distinction must be made between the equity ownership and voting rights. The prospectus also offers valuable insights into the distribution of equity ownership compared to that of voting rights. Moreover, the risk disclosure section, mandated by the stock exchange, usually outlines several types of risk. It is not only about the current standing of the companies and their market positions but also forecasting what is coming in the next few years.

At the same time, the prospectus is to be read critically, as it is, after all, a company's branding document to appeal to certain group of audiences such as investors, stock market regulators and the public. Therefore, I complement these first-hand documents with historical news reports on their IPO positions. These are mainly English sources from credible news outlets such as Bloomberg and the Wall Street Journal. I also incorporate existing scholarly research studying the IPO process of Chinese internet from different disciplines: financial geographies, economics, political economy of communication and media studies.

Table 8 Companies Information

Company	IPO	Year Founded	Revenue in million USD*	Internet Content	Search	Online Advertising	E-commerce	Fintech	Streaming	Social Media	Online Games	Cloud Computing
Sina	2000	1999	2108.3	▲		▲				▲		
Sohu	2000	1996	1883	▲	▲	▲					▲	
NetEase	2000	1997	9767	▲		▲	▲				▲	
Baidu	2005	2000	14876	▲	▲	▲		▲	▲	▲		▲
Tencent	2004	1998	44680	▲	▲	▲	▲	▲	▲	▲	▲	▲
Alibaba	2014	1999	39898	▲		▲	▲	▲	▲	▲		▲
Cheetah Mobile	2014	2009	724.6			▲				▲	▲	▲
Weibo	2014	2009	1718	▲		▲			▲	▲		
Pinduoduo	2018	2015	1908				▲					
iQiyi	2018	2009	3634.5	▲		▲	▲		▲	▲	▲	

source: compilation of companies' annual report 2018; revenue recorded *as of 2018

The Elites and Networked Origins of Chinese Internet Companies

From the perspectives of political economy of communications, especially the school of institutional political economy, the development of Western media corporations is always already embedded within and coevolves with the history of capitalism and the wider global economy. The national institutional system, such as state regulation and historical path-dependency, not only shapes the strategies of corporations but also the ability of capitals to restructure and expand their operations in the sphere of culture and communication (Fitzgerald, 2012). Although refraining from direct involvement in capital accumulation, the state remains central in the globalization of media companies and corporations. Furthermore, the judicial, regulatory and infrastructural frameworks create conditions that can either facilitate or inhibit capital accumulation in communication sectors.

The development of the Chinese internet is deeply embedded in the socioeconomic conditions of the Chinese society and follows a place-dependent path creation. On the one hand, the founding places of internet companies are concentrated in city centers of political and economic importance, where the internet infrastructure is also more advanced and the research and development efforts are pioneered. Large Chinese internet enterprises have thick networks of social capital (*guanxi*[21] with domestic tech and political elites), human capital, and venture capital (Batjargal, 2007). The proximity to cities like Beijing, Shanghai, and Guangzhou not only provides companies insights into internet policymaking processes and sectoral regulatory authorities but also offers potential to connect with many client resources, which is crucial for the initial takeoff of business.

Beijing's academic community played a key role in providing a large and diversified

[21] Guanxi means personal connection and is identified as a necessary condition to do business successfully in China, even though its importance changes overtime (Guthrie, 1998).

pool of start-up founders (Zhang, 2008). Nearly all founders of Beijing's firms were graduates of its elite universities and the Chinese Academy of Sciences (CAS), with subsequent education in North America. Secondly, these returnees brought with them financial backing which sustained companies to survive and thrive in the early years. Zhang (2008) finds that 48 of the top 50 internet companies by the end of 2006 were financed by foreign venture capitalists. To a lesser extent but also noteworthy was the fact that 31 firms were founded by returnee entrepreneurs, predominantly those returning to China from the United States (Zhang, 2008).

As media economy scholar Robert Picard states, since the last quarter of the twentieth century, the internationalization of capital separates the locations of capital production from where it is invested (Picard, 2011). The globalization of Chinese internet companies is enabled by the internationalization of capital and encompasses rich crisscrossing trends between the national and the global: while many of them tap the global capital market, their businesses and revenues are still mainly derived from the domestic market. Incorporated in offshore jurisdictions, they are also listed in foreign stock exchanges through the Variable Interests Entities (VIE) structure while strictly abiding by the licensing requirements and regulations of the Chinese state (see Chapter 3). Chinese internet companies' growth and development are fueled by access to an increasingly global pool of capital and a concentrated pool of expertise, which produced the type of situation Arsenault and Castells (2008) describe as "capital is global; identities are local".

As shown in the previous chapter, foreign investments and connections play an indispensable role in facilitating the expansion of Chinese internet companies. The state's tolerance of the VIE structure provides a partial solution to the short supply of capital–a problem that has plagued China's telecommunication development. Access to capital is not

only crucial in the initial growth of the companies but also in subsequent market expansion processes, in financing mergers, acquisitions and investments to consolidate market power. China is home to 77 and 97 unicorns (which are start-ups worth $1 billion or more) in 2017 and 2018 respectively (Zhang, 2019; CNNIC, 2019). In 2014, the state explicitly encouraged nationwide start-ups in the *Mass Entrepreneurship and Innovations Program* (XinhuaNet, 2018) and this program further instills a "financialized" logic into start-up enterprises, and breeds the change of perception that entrepreneurs are now turning into capitalists-in-waiting via financing and cashing out by larger firms (Xia, 2018). With the BAT dominance that covers almost every corner of online services (as depicted in Table 8), the barriers to entry erected by large companies are so high that smaller internet enterprises cannot afford to compete unless they sell their start-ups. The predatory behemoth companies then come into play, extracting low purchase prices for patents and copyright while leaving the risks and cost to the start-ups (Xia, 2018).

Table 9 Public Listing of Chinese Internet Companies and Market Capitalization

Year	Listing Destinations			Number of listed internet companies	Total Market Value (Trillion RMB)[22]	% of BAT Market Value
	Shanghai & Shenzhen	U.S	Hong Kong			
2016	39 (14.6%)	42 (55.7%)	10 (29.7%)	91	5.4	57%
2017	46 (7.7%)	41 (54.8%)	15 (37.5%)	102	8.97	73.90%
2018	46 (38.3%)	48 (40%)	26 (21.7%)	120	7.89	N/A

Source: compilation of CNNIC Annual Statistics Reports

Table 9 shows the metadata on listing practices of Chinese internet companies. Despite the increase in the number of listings on domestic stock exchanges, the majority of Chinese internet companies still turn to the U.S and Hong Kong to raise capital. More importantly, not all listed companies are of similar size: there is a very small number of

[22] The exchange rate of USD to RMB in 2016, 2017 and 2018 are 6.94, 6.5, and 6.8

companies with very large market value. Baidu, Alibaba and Tencent together represent over half of combined market value of all listed Chinese internet companies.

Reasons to Go Public: NASDAQ, HKSE, or NYSE?

Historically, waves of overseas listings of Chinese firms accord with the ebbs and flows of the capital market and reflect the need for capital by both state-owned and private enterprises after the market reform. The first wave began in the late 1980s, Chinese firms started to list on the Hong Kong Stock Exchange via reverse take-overs. The second period was from the early 1990s to the late 1990s, during which Chinese firms began to list overseas via IPOs (usually on HKSE and some SOEs in Singapore). The third period, from 1999 to 2007, was characterised by a small number of Chinese internet and new media firms listing on NASDAQ. The period from 2007 to 2011 has witnessed another exponential growth in the number of Chinese firms listing in HK, the US and Singapore, as well as other re-emerging destinations (Pan & Brooker, 2014). The first Chinese internet company Sina, went public on NASDAQ in 1999, and another two, NetEase and Sohu, followed later that year. In 2000, as the dot-com bubble loomed in the U.S, seven Chinese internet firms successfully listed on NASDAQ, among which were China's first batch of portal websites: Sina, NetEase and Sohu.

Before 2000, most Chinese firms that went public on overseas stock exchanges were state-owned. With more privately-owned firms going abroad, the Chinese Securities Regulatory Commission (CSRC) started to regulate overseas listings from 1999. Firms seeking overseas listings need approval from the CSRC and other ministers. In light of this, a large number of private Chinese firms have sought to redefine their incorporations as offshore firms and then seek to go public in foreign stock market without approval from the government. Although the regulation of overseas listings was relaxed from 2003, the CSRC tightened it again in 2006 with the involvement of Ministry of Commerce and People's Bank

of China (Pan & Brooker, 2014, p. 3). In 2019, the Shanghai Stock Exchange opened a NASDAQ-style submarket Science and Technology Innovation Board, lessening profitability requirements allowing pre-profit companies and dual-class structures to attract listings (Zhang & Jia, 2019). Although China recently launched the capital market reform to harness domestic capital in financing and reaping the rewards from tech innovation, overseas stock markets are still preferred choices (Table 3).

There are two main reasons that drive Chinese internet companies to foreign stock exchanges: the stringent state control over the initial public offering (IPO) and the unfavourable capital market regulations of domestic stock exchanges. First of all, domestic IPOs are highly regulated and require many procedural steps under the supervision of governments from different levels. The most powerful institution that oversees the stock exchanges and is in charge of drawing up a list of candidate companies for IPO is the China Securities Regulatory Commission. In other words, CSRC has principal control in deciding which companies will be permitted to engage in public offerings while also imposing its own determination of the offering price (Cohn & Miao, 2018). The CSRC's proposed list of IPO-ready companies then awaits the State Council's approval. Secondly, the financial requirements for domestic IPOs have been stricter than those in the U.S, UK, or Hong Kong. The revenue and profit of firms are key indicators for the chance of success of domestic IPO applications, making it difficult for young firms to get an approval (Pan, Zhao, & Wójcik, 2016). Moreover, the dual class share structure is not allowed in domestic stock exchanges. Additionally, the stock market in China is subject to a high level of uncertainty, as the stock exchanges have suspended trading on several occasions historically.

Domestic regulations rationalize the desire to list companies overseas. Compared to domestic stock exchanges, there is no need to show evidence of profit-making as a pre-

requisite for a listing on the New York Stock Exchange (NYSE) or NASDAQ. Since the 1990s, NASDAQ has been the market of choice for U.S high-technology firms and it also attracts the majority of foreign listings from the BRIC countries in technology and consumer services sectors (mostly internet-based services) (Wójcik & Burger, 2010, p. 290). NASDAQ has also been the main destination of choice for Chinese firms operating in the telecommunications, software, and hardware sectors (see Table 9).

Moreover, listing stocks overseas, especially in the U.S, provides proximity to the well-established financial and business "support networks" of venture capitalists, law firms, investment banks, and other service providers. In contrast, the Chinese capital market is much less integrated nationally than that of the U.S, particularly in terms of investment banking services (Pan, Zhao, & Wójcik, 2016, p. 157; Wójcik & Camilleri, 2015). Furthermore, NASDAQ has major advantages over domestic stock exchanges for the very reason that it allows dual-class share. Dual class share structure represents a decoupling of voting rights from economic ownership (Wen, 2014). A company with such structure typically has a capital structure whereby insiders hold common stock with multiple votes per share (typically ten), while the public holds common stock with just one vote per share. The NASDAQ stock market and NYSE have consistently allowed corporations with such structures to list on their exchanges. Companies like Google, Facebook, Groupon, LinkedIn and Zynga have all adopted such share structure (Wen, 2014, p. 1496).

Table 10 shows the different share structures adopted by Chinese internet companies examined in this chapter. Only Sohu, NetEase, Tencent maintain the single class share structure, where one share translates to one vote. The rest all have a dual class share structure, which means there is a separation between equity ownership and voting rights. Similar to many U.S-based internet companies, the dual-class share structure indicates strong owner

control over the operation and management decisions. Alibaba has in place the Lakeside Partners, which is a group comprised of 27 individuals at time of its IPO in 2014. According to Alibaba, unlike the dual-class ownership, the partnership is one-partner-one-vote and it holds the exclusive right to nominate most of board of directors (Alibaba Group, n.d.). Although the company claims that the partnership "is designed to embody the vision… (and) for preserving the culture shaped by our founders" (Alibaba Group, n.d.), the partnership is administered by a partnership committee made up of five individuals. Other research and reports suggest after stepping down from the chairman position, Jack Ma still holds significant power and has the final say in company's decisions (Barboza, 2014; Hu, 2018; Lin & Mehaffy, 2016).

Table 10 Share Structure of Publicly Traded Chinese Internet Companies

Company	Share Structure	Share Class
Sina	Dual Class (changed in 2017)	Class A: 10,000 votes per share Ordinary share: one vote per share
Sohu	Single Class	
NetEase	Single Class	
Baidu	Dual Class	Class A: One Vote Per Share Class B: Ten Votes Per Share
Tencent	Single Class	
Alibaba	Dual Class	Lakeside Partners
Cheetah Mobile	Dual Class	Class A: One Vote Per Share Class B: Ten Votes Per Share
Weibo	Dual Class	Class A: One Vote Per Share Class B: Three Votes Per Share
Pinduoduo	Dual Class	Class A: One Vote Per Share Class B: Ten Votes Per Share
iQiyi	Dual Class	Class A: One Vote Per Share Class B: Ten Votes Per Share

Source: compilation of annual reports

Moreover, as argued in Chapter 3, Chinese internet companies also rely on foreign investment banks as IPO underwriters. Investment bankers play several very important roles in the stock offering for the IPO firm: they provide an invaluable source of guidance for firm managers and owners, most of whom lack prior experience with the complex and lengthy process; they also assume primary responsibility for effectively marketing the firm's securities to investors (Daily, Certo, & Dalton, 2005, p. 97). Investment bankers also work with IPO firm

management in setting the offer price spread and subsequently, the offer prices (Daily, Certo, & Dalton, 2005, p. 94). Other than raising capital, overseas listing can also fulfill multiple goals to strengthen competitiveness in the marketplace, such as enhancement of corporate governance, cultivating reputation, raising prestige and utilizing external knowledge. An IPO is regarded as a milestone in building the company's brand recognition (Wójcik & Burger, 2010, p. 290). For example, Weibo's IPO was partly a branding effort as the social media company is a spinoff of the publicly traded Sina corporations. It is for these reasons that Chinese internet companies pursue overseas listings.

Overall, although listing overseas provide many advantages over domestic listings, it still is an expensive move in terms of listing fees and the complexities of cross-border clearing and settlement (Wójcik & Burger, 2010, p. 277). Depositary Receipts are the dominant vehicle of foreign listing. They represent equity in a foreign company, but they are denominated in the currency of the host market and can be bought and sold just like domestic stocks, following the same clearing and settlement procedures.

Prospectus: Interface, Hegemonic Apparatus, Performance

When a company is transformed into a stock company listed for trade on public markets, it must comply with laws and regulations that govern such companies in the country of its origin and with procedures outlined in its articles of incorporation, bylaws, and other relevant managerial documents. The firms must also comply with relevant laws and regulations in countries in whose market stock exchange its shares are trade (Picard, 2011). One of the most important documents where the value of the internet companies is speculated, articulated, negotiated and justified is the prospectus. According to the U.S *Securities Act of 1933*, companies must register and provide financial statements and information on the company's properties, business and management to the U.S Securities and

Exchange Commission (SEC) to enable investors to make informed judgements about whether to purchase company's securities (U.S Securities and Exchange Commission, 2013). Listed companies are not only subject to U.S securities laws but also need to reconcile their financial statements in accordance with the US generally Accepted Accounting Principles (GAAP) (Wójcik & Burger, 2010, p. 287).

The financial prospectus is a document that outlines the business and the value propositions for potential investors, articulating both rhetorical claims and historical contexts (Elmer, 2013). As a speculative enterprise, Elmer (2019) argues that the prospectus is the key accounting instrument that conceptualizes the risk and potential growth of the company's value. Essentially, the prospectus is the financial pitch a company make to potential investors. The main audience for a prospectus is elite investors, banks, financial institutions, regulators and financial reporters (Nam, 2018).

Critical studies of IPO prospectuses have drawn important connections with the rise of cognitive capitalism, viewing the IPO prospectus as a ***hegemonic apparatus*** where it justifies and legitimizes social media and tech companies as natural solutions to the problems of the stationary state in a knowledge-based economy: cognitive capitalism. Siho Nam's (2018) study on social media's IPO registration statements (S-1) employs critical discourse analysis to dissect how social media companies articulate their financial interests and business ambitions as the inner working of cognitive capitalism. Focusing on the discursive construction of IPOs, he argues that the utopian technological optimism narrative structure omits and undermines issues of free labor and the extraction of value via user data as the foundation of the company's capital accumulation model (Nam, 2018). In other words, IPO statements are the hegemonic apparatus that shape public imaginations and legitimize capital accumulation processes in cognitive capitalism.

The style of IPO statements has changed to incorporate highly noble, non-financial messages from the founders (Nam, 2018). In the case of Twitter, both the founders' letters to shareholders and an extensive risk section articulated a realistic expectation of share performance (Vara, 2013). The founders' letter mobilized several rhetorical strategies to present a story and a narrative to financial reporters and to the mass media, building the soft power of the companies together with the financial data that represents the hard power (Dror, 2015). The common thematic element in the founder's letters is the Silicon Valley ethos, where technological innovation, together with deregulation and capitalism are both essential and sufficient to ensure the public good (Levina & Hasinoff, 2016).

Despite their use as an ideological and framing device, IPO statements provide a rich well of financial information and impact how much capital will be raised in the stock listing. Financial information, argues Lee (2014), always carries a ***performative*** role to shape public imagination and to create a market reality. Through accounting the firms' opportunities and risks, the prospectus also provides justification for the stock price and the company's market outlook.

The prospectus document is an ***interface***, capturing rounds of negotiations between different parties in the process of an IPO. Facebook's IPO history shows last minute revisions regarding the source of the company's value leading up to the company's flotation (Elmer, 2019). The prospectus as an interface records the back-and-forth negotiations between different parties (company, investment banks, and potential investors) in deciding the value of the company. The IPO prospectus thus serves important insights as a speculative interface where it captures historically the company's value proposition (Elmer, 2019). The IPO also offers crucial information about the micro-histories of companies, typically anywhere from

two to four years in length and provides insight into how a platform evolves overtime (Elmer, 2017).

Keeping in mind the multiple functions of the prospectus, the following analysis focuses particularly on the "risk factor" reporting in the prospectuses of Chinese internet companies. As historical records, risk factor reporting shows different types of internal and external difficulties and liabilities of Chinese internet companies' operations in their respective markets. As a performative device, risk factor reporting is an accounting device for articulating and positioning the Chinese internet companies into the regime of financial speculation and valuation. Evaluations of risks are a constant of financial portfolio management and they are essentially rhetorical and symbolic renditions that translate the future market prospectus into something calculable, and eventually can be allotted a monetary value (securitized) (Davis, 2018). Examining prospectuses published in different historical periods, this analysis delves into what constitutes "risk" to business models over time to showcase how Chinese internet companies' capitalization processes co-evolve with state policy and capital market.

2000: Sina, Sohu and NetEase

Who Regulates What?

As the country's first internet companies pursuing public listing, the overseas adventure of Sina, Sohu and NetEase were imbued with many uncertainties. On the one hand, domestic internet regulation was still ongoing and falling victim to inter-ministerial battles and bureaucratic turf wars for power. The regulatory authorities were fought out between Ministry of Information and Industry (MII), Ministry of Post and Telecommunications (MPT), Ministry of Public Security (MPS), and SARFT (Mueller & Tan, 1997). Different ministries disputed over who should have regulatory authorities over which

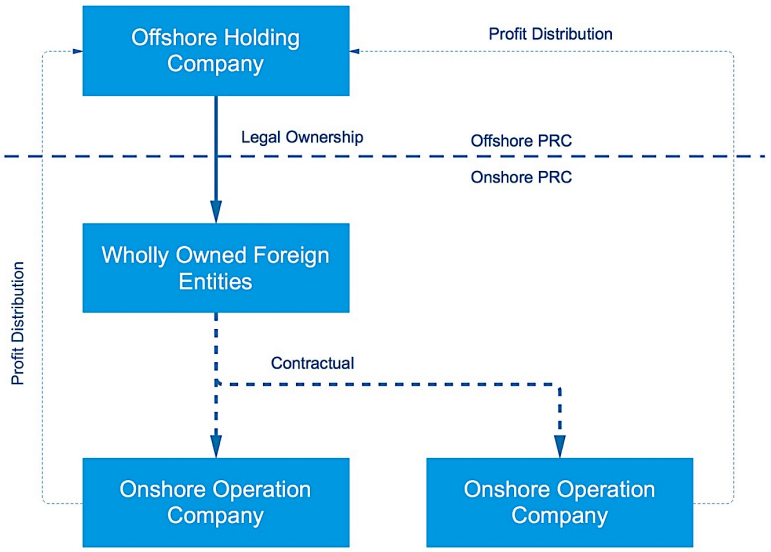
type of service. Wu Jichuan, the former minister for MII openly remarked that regulation of Internet Service Provider (ISP) was under the purview of MII but Internet Content Providers (ICP) were not (Sina, 2000). However, the State Council still designated and assigned ICP to MII. In either case, internet companies intending to list shares overseas must first obtain permission from Ministry of Information Industry.

On the other hand, China's communications were still undergoing rapid restructuring to prepare for the opening up and liberalization in the ensuing WTO accession in 2001. Despite a raft of regulations put in place around 1999 and 2000, the first formal legislation over telecommunications and value-added telecommunication services was promulgated only in 2006, five years after the first overseas listing. According to the pre-existing 1993 *Telecommunication Regulation*, foreign investors were strictly prohibited from entering the value-added telecommunication services sector. Under the *Administrative Rules for Foreign Investment in Telecommunication Enterprises* issued by the State Council in 2001, foreign investors are prohibited from owning more than 50% of the equity interest in value-added telecommunication service such as ICP. However, listing shares overseas means foreign equity ownership in Chinese value-added telecommunication services. Therefore, internet companies seeking overseas listing must find a viable way to raise capital while avoiding head-on conflicts with existing laws and regulations.

Sina was one of the first Chinese companies to use the Variable Interests Entities (VIE) structure to attract foreign investment through listing on NASDAQ in 2000. The VIE model is therefore dubbed the "Sina Model". VIE structure is usually composed of an intermediary wholly foreign-owned entity (WFOE), which is a shell company registered in offshore jurisdictions and multiple operating entities registered in China (seen Figure 5). Through series of contractual agreements detailing the level of control and cash flow, the WFOE is

linked to the operating entities in China. Legally speaking, Chinese internet companies registered in offshore jurisdictions are considered foreign entities according to the Chinese law. The VIE structure thus circumvents imposed foreign ownership restrictions while it guarantees profits and benefits distribution to foreign investors and leaves the control firmly in hands of the company owners. Although this structure was not officially or publicly endorsed by the Chinese government, Sina, Sohu and NetEase were able to obtain enough unofficial comfort from the Chinese regulators in order to satisfy the listing requirements of the foreign stock exchanges, mainly in the U.S and Hong Kong (Man, 2015). After protracted periods of waiting and postponement, Sohu and NetEase's IPO received approval from MII in 2000 (CNN Money, 2000).

Figure 5 The Design of Various Interests Entity



As the VIE structure solved the restrictions on foreign investment, Sina, Sohu and NetEase must also devise a corporation structure that clearly distinguished categories of services that are subject to licensing requirements and different foreign investment rules. In preparation for stock issuance, all three companies restructured their businesses. The public listing of ICP on overseas stock market was forbidden (Shu & Cao, n.d.). Sina, Sohu and

NetEase separated the ICP segment of business from the listed entities. Each operating entity was organized mainly by the service range (ICP, advertising, so on) in order to obtain relevant operating licenses. Sohu, for example, transferred its content-related operations to Beijing Sohu Online Network Information Services, which was 80% owned by its founder Charles Zhang. To build "national fame" prior to its IPO, NetEase further relocated its ICP business from Guangzhou to Beijing in 1999 to be adjacent to the political center and to obtain access to a larger market and venture capitalists (Zhang, 2008). Sina located its business with two Chinese entities: Beijing Stone Rich Sight, which was licensed as a software company and Beijing Sina Interactive, which was licensed as online advertising and ICP company under supervision by the Propaganda Department, Ministry of Public Security, and the State Secrets Bureau. These restructurings appeased and reassured the regulators that the control eventually rest in their hands. Thus, licensing serves as a powerful mechanism that plants the companies on Chinese soil and made sure that control over content is firmly in hands of the Chinese regulators.

The VIE structure provided advantages to private companies as the segment of the business that went for public listing is the shell or holding company registered offshore, not the actual operating entities. The holding companies also do not have ownership over the domestic operational entities–the operating units that actually hold the required licenses to operate in Chinese market. Instead, they bind to each other through contractual agreements. Even though this model was widely adopted by Chinese internet companies seeking listings in foreign stock exchanges, it still unclear whether it was legal and thus carried risks and uncertainties as Sina spelled out:

> "the interpretation and application of existing Chinese laws and regulation, the stated positions of the MII and the possible new laws or regulations have created substantial uncertainties regarding the legality of existing and future foreign investments in, and

> the businesses and activities of, Chinese Internet Businesses, including our business." (Sina, 2005)

Dotcom Bubble and Conforming with Rules

Sina, Sohu and NetEase all pursued public listing at a tumultuous time during the dotcom bubble. As these companies integrated and injected themselves to global capital circuits, the stock prices rode a rollercoaster. Sina's stock price rose nearly 22 percent on the day of its IPO. As stock tumbled, Sohu's IPO was delayed due to market conditions. The burst of the bubble trickled down to NetEase and Sohu's flat debut on NASDAQ while the stock price of Sina, NetEase and Sohu all fell below the $1 mark in 2001 (Tai, 2006).

As the first batch of Chinese internet companies venturing out on NASDAQ, these companies experienced a steep learning curve in ensuring compliance with rules and accounting standards. NetEase faced NASDAQ delisting due to delay in publishing its annual report in 2001. The company applied for a hearing to NASDAQ which was later granted and the company resumed trading on NASDAQ in 2002 (Netease, 2001; 2002). NetEase also was subject to a class action lawsuit by Frank Satty for violating U.S federal securities law in connection with the company's restatement of its audited financial statement for 2000 (Netease, 2001).

Shifting Business Models and Competitions

In the S-1, Sina identified itself as a leading "internet, media and services company", while Sohu regards itself as an "internet portal" and NetEase an "internet technology company". All three companies were operating at a loss prior to the IPO. The business models shifted and diversified from the software business to online advertising for all three companies. The majority of Sina and NetEase's revenue derived from software licensing or sales (see Table 11). The birth of Sina was the result of a merger between software company

Rich Stone Sight and Sinanet, a website founded in the Silicon Valley for the Chinese American community in 1995. As an emerging business model, the government was also developing a regulatory framework for online advertising. Sina, Sohu and NetEase were all involved in the policy making of online advertising and were given business permits in 2000 to participate in the one-year trial program spearheaded by the State Administration of Industry and Commerce (SAIC). The trial program was to help SAIC to formulate rules to govern online advertising industry (Dean, 2000).

The licensing rules also shaped the business models of these three companies. As news has been the most controlled type of media content, ICPs cannot produce news content without online news licenses. These three companies' content business mainly relied on partnership with mainstream news organizations and media companies for the supply of news content, such as CNET, Dow Jones and Xinhua News Agency. This not only cut the profitability of these businesses but also ensured the media control over online news content.

Table 11 Revenue Composition for Sina, Sohu and NetEase

Sina ($ Thousands)					
Year	**1996**	**1997**	**1998**	**1999**	**2000**
Advertising				561(19.9%)	11,013(77.7%)
Software Products	430(100%)	942(100%)	2,499(100%)	2,248(79.5%)	2,943(20.8%)
E-Commerce				18(0.6%)	214(1.5%)
Revenue	430	942	2,499	2,827	14,170
Net Income*	-161	-1,856	-233	-9,785	-54,402

Sohu ($ Thousands)						
Year	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
Advertising			472(100%)	1,617(100%)	5,844(98.2%)	9,245(71.1%)
Non-Advertising					109(1.8%)	3,755(28.9%)
Revenue	-	78	472	1,617	5,953	13,000
Net Income	-29	-160	-615	-3,449	-19,236	-43,587

NetEase (RMB Thousands)		
Year	**1998**	**1999**
Advertising Services	173(5.6%)	10,796(64.4%)
Software Licensing	2,943(94.5%)	3,516(21%)
E-commerce		2,459(14.6%)
Revenue	3,115	16,771
Net Income	333	-51,974

Source: Sina, Sohu, NetEase prospectuses

During this era, domestic market competition was dominated by a handful of Sino-Foreign joint ventures. Sina, Sohu and NetEase all identified MSN, Yahoo! and AOL as competitors in the prospectus. Despites strict rules imposed on media ownership and co-production, global media companies struck a handful of deals with local media or local authorities and quietly got around the regulations. This demonstrates China's pragmatic approach towards media globalization. In fact, media internationalization in the country started long before it was officially legitimized and written into law. The Chinese government's strict regulation combined with flexible implementation reflects a cautious yet pragmatic approach to globalization (Lin, 2007, p. 106). Other than foreign competitors, the future of domestic internet infrastructure buildout and bandwidth capabilities all accounted as risks in S-1s.

2004: Baidu and Tencent

Baidu, China's internet search company, was founded in 1999 by Li Yanhong, the former employee of Disney's search company Infoseek in the Silicon Valley. By 2004, Baidu was one of the most popular search engines and online advertising services in China. Tencent was established by Ma Huateng and four of his friends in 1998. The company gained popularity through its mobile email service and instant messaging service OICQ (built on the Israeli ICQ program and later rebranded to QQ after being sued by AOL for violation of ICQ's intellectual property rights).

The rapid internet user growth and penetration rate in China brought in a growing array of overseas investors and the return of "Internet Spring" in China in 2003, a period characterized by sizable profit gain from rapidly expanding domestic market and a wave of active overseas listing of newly emerged internet companies (Zhang, 2008). Mainstream

Western venture capitalists began to put China seriously on their global operational map for the first time. After a brief hiatus, Chinese internet companies returned to NASDAQ. Baidu and Tencent were emblematic of this investor fever as both companies had already attracted strong financial backings prior to IPO. Baidu drew in investments from Draper Fisher Jurvetson ePlanet Ventures, Peninsula Capital, Integrity Partners. Google also purchased 2.6% shares from Baidu in 2004 (Yeh, 2006). As the world's fourth largest company in terms of web traffic at the time, Baidu's share price surged more than three times on its debut, bringing its market capitalization to $4 billion from $872 million (Postelnicu & Nuttall, 2005; Barboza, 2006).

IDG Capital, a U.S venture capital company focused on the Chinese market and Pacific Century Cyberworks (PCCW) offered $2.2 million for a 40% stake in Tencent. This investment was critical for the survival for its QQ online chat program and sustained it to outcompete MSN's Messenger, Yahoo! Messenger, NetEase's Popo and China Mobile's Vnet Instant Messenger (Casanova, Cornelius, & Dutta, 2018; Li, 2005). South African media giant Naspers Group's offshore investment arm and holding company Myriad International Holdings (MIH) bought both PCCW's 20% share and IDG's 13% share in Tencent in 2001, making it the single largest shareholder of Tencent (Pan, 2019). Naspers's Tencent stake alone was worth 97% of its market value. This created a "tail wags the dog" situation where Tencent's share price fluctuation will directly translate into Naspers' and an investment in Naspers essentially mean an investment in Tencent (Teer-Tomaselli, Tomaselli, & Dludla, 2019). In 2018, Naspers has the largest market capitalization on Johannesburg Stock Exchange (JSE), so dominant that it makes up nearly a fifth of the entire JSE All Share Index (Teer-Tomaselli et al., 2019).

Unlike other companies examined here, Tencent is the only internet company that went for public listing on the Hong Kong Stock Exchange (HKSE). The decision of HKSE

listing was a strategic one, after factoring in the listing fees, financial feasibility, time and risk (De Wet, 2015). HKSE excelled as the destination of share issuance for Tencent because of the smaller listing fees. In preparation for listing, Tencent relocated its registration place from British Virgin Island to Cayman Islands as per HKSE regulation that outlaws listings of companies outside Hong Kong, China, Bermuda and Cayman Island (De Wet, 2015).

Table 12 Revenue Composition of Baidu and Tencent

Baidu					
Year	**2000**	**2001**	**2002**	**2003**	**2004**
Online Marketing Services	-	202(3.1%)	4,292(39%)	31,775(78.3%)	106,854(91%)
Enterprise Search Software and Services	-	366(5.6%)	1,724(15.6%)	2,803(6.9%)	7,958(6.8%)
Portal Search Services	1,340 (100%)	5,955(91.3%)	5,004(45.4%)	5,993(14.8%)	2,639(2.2%)
Revenue	1,340	6,523	11,020	40,571	11,7451
Net Income	-15,523	-15,865	-18,577	-8,885	12,005

Tencent			
Year	**2001**	**2002**	**2003**
Internet Value Added Services (VAS)	944(1.9%)	40,819(15.5%)	229,690(31.2)
Mobile and Telecom VAS	37,960(77.3%)	198,818(75.6%)	467,369(63.6%)
Online Advertising	7,735(15.8%)	19,188(7.3%)	32,841(4.5)
Others	2,437(5%)	4,282(1.6%)	5,057(0.7%)
Revenue	49,076	263,107	734,957

Source: compilation of Baidu and Tencent prospectus

Burdens of Censorship

By 2004, the content censorship regime was already expansive and ambiguous and was delegated to multiple government agencies. By 2005, Ministry of Industry and Information Technology (MIIT), Ministry of Public Security (MPS) and State Secrets Bureau (SSB) all oversaw the compliance of censorship. The Chinese internet content regulation is characterized by broad reach and definitions of outlawed content categories (Cheung, 2006; Wacker, 2003). This left much room for both state and companies to interpret what constituted censored content, such as the socially destabilizing content category. Meanwhile, responsibilities to monitor online content were downloaded to internet companies, creating perilous self-censorship. If content monitoring and removals were not done promptly or

properly, internet companies would face the risk of losing business licenses, fines or suspension of operations. Baidu reported in its S-1 that in June 2002: "Baidu's server was shut down for one week and received $10,000 fine because its search results contained certain content that the public security authorities considered socially harmful" (Baidu, 2005).

As the operator of the country's popular online chat service QQ, Tencent faced equally, if not more onerous duties to retain user information and chat records. In particular, Tencent pointed out the lack of enforcement rules in monitoring content posted by third parties: "it is unclear from the relevant legislation what steps we are required to take in order to ensure that prohibited content is not posted on, or transmitted by means of, our websites or services…" (Tencent, 2004). The government also revamped the regulation of Short Message Service (SMS). In 2003, SMS providers must retain records for 60 days and make them available to the relevant government ministries. In 2004, regulation issued by MIIT increased the required mobile SMS providers' retention period to five months and made explicit the requirements to censor and monitor content. As Tencent hastened its mobile messaging service development, the costs of closely monitoring and censoring content became an integral and routine part of business.

The Illegal Rise

The turnaround for China's internet in 2003 is marked by online gaming, online advertising and mobile messaging (Zhang, 2008). The diversification of service offerings broadened reach for profit in areas that were yet to be regulated. Baidu's two controversial services: MP3 search and download and P4P (pay for performance) advertising were among the most lucrative and popular services that gave the IPO a high valuation. The company's share prices quadrupled (Associated Press, 2005; So & Westland, 2009).

Baidu, on the other hand, offered MP3 download services, which provided algorithm-generated links to both authorized and unauthorized multimedia files stored on other websites when users search songs or artists (Dong & Jayakar, 2013). While the service verged on a grey area for copyright protection, it drove a significant portion (22%) of the company's traffic and generated a host of legal disputes. Baidu received multiple lawsuits regarding illegal downloading of its MP3 service. It was sued in 2005 by the International Federation of the Phonographic Industry (IFPI) for copyright infringement, offering illegal download of 137 pirated songs and the IFPI claimed compensation of USD$226,000. The Beijing First Intermediate People's Court ruled that although Baidu participated in delivering infringing music by providing a link service, it was exempted by the "notice-removal principle" stipulated in Article 23 of the *Regulations on the Protection of Rights to Information Network Communication*. Baidu MP3 has fought various legal battles with EMI Group (Connolly, 2007), the Music Copyright Society of China and R2G (Tuo, 2008), Universal, SonyBMG and Warner (Dong & Jayakar, 2013). Baidu was listed by the United States Trade Representative as a notorious market multiple times for illegal downloading of music and was finally taken down from the list in 2011 (Chao, 2011).

Baidu Netcom, which operated pay for performance (P4P) online advertising services, allowed advertisers to bid for ad space and pay Baidu every time a customer clicked on an ad. It wasn't until 2017 that the Chinese government officially regulated P4P services as online advertising. Before then, Baidu's revenue from P4P was categorized as information services and thus avoided the 33% enterprise income tax imposed on advertising services.

By 2004, online gaming had been one of areas that was yet to be consistently regulated. However, in early 2000s, there were no specific laws or regulations for the publication and operation of online gaming products. For imported online games, the state only started to

enforce licensing requirements in 2004 by Ministry of Culture, State Press and Publication Administration[23] (SPPA, later renamed as General Administration of Press and Publication in 2001) for Internet Publishing Approval (for website games). The successful launch of a game needed both licenses for business qualification, and game content needed to be vetted and monitored. Different government ministries are in charge of the release (by GAPP) and the operation of online games (Ministry of Commerce). Tencent started tapping into the gaming industry with the launch of China's first Multiplayer Online Role-Playing Game Sephiroth, under license from Imazic of Korea. The company was struggling to obtain licenses retroactively for the already published online games:

> "Tencent Computer intends to apply for the Imported Games Approval to operate other online games which it had previously imported by September 1, 2004, in accordance with requirements issued by the Ministry of Culture" (Tencent, 2004).

As Tencent's business model mainly hinged on the provision of value added services such as games (see Table 12), obtaining licenses is critical for its operation. An eight-month delay in state's approval for the game monetization license (banhao) for the Player Unknown's Battlegrounds, PUBG, wiped 31 percent of Tencent's share values in 2018 (Jiang & Roantree, 2018).

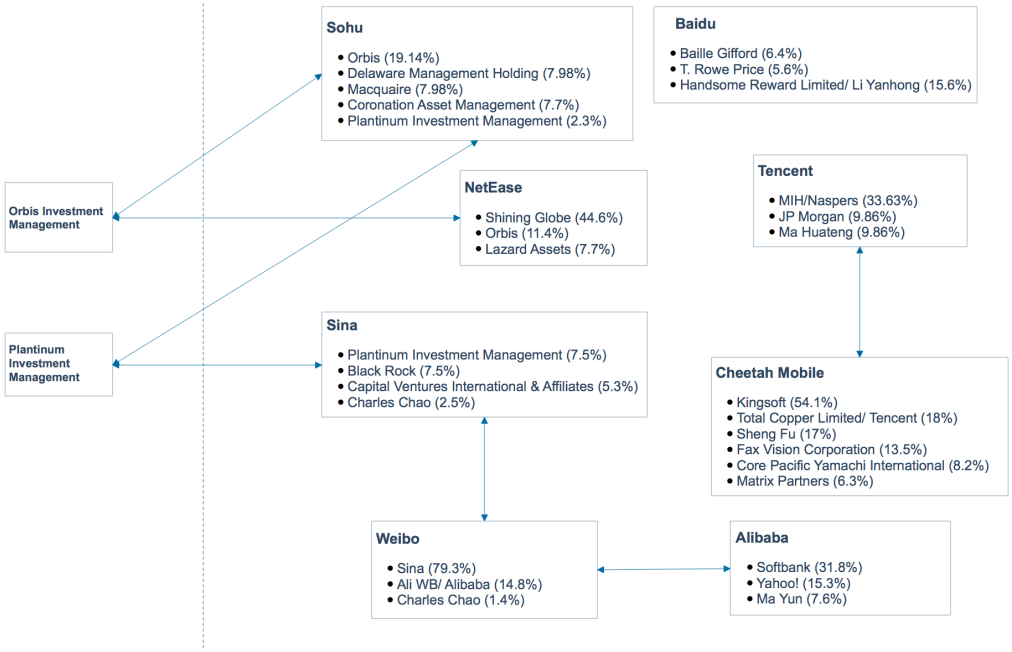
2014: Alibaba, Cheetah Mobile, Weibo

The year 2014 marked a rampant wave of overseas listings of Chinese internet firms. Domestically speaking, three behemoths, Baidu, Alibaba and Tencent (also known as BAT) consolidated their market dominance through mergers and acquisitions. The costly strategy of M&A required a large pool of capital and prompted overseas listings to seek capital. Mergers and acquisitions reached an all-time high between 2014 and 2016, with over 1,000

[23] SPPA was established in 1987 and is responsible for licensing, overall planning, regulation and market discipline of the Chinese print media, as part of the institutionalization and regularization of media control efforts.

deals taking place in the technology, media and telecom sectors, totalling $320 billion (Perez, 2016). Acquisitions by BAT totalled nearly half of the $320 billion. As a result, the deep-pocketed BAT looped other internet companies into a networked structure through cross-ownership and common investors such as Orbis Investment and Plantinum Investment (Figure 6).

Figure 6 Cross Ownership of Chinese Internet Companies, 2014



Among the three companies that went for public listing during 2014, Cheetah Mobile and Weibo, a spinoff of Sina, are closely linked with Tencent and Alibaba through shareholding and ownership control. Kingsoft Internet Services changed its name to Cheetah Mobile in the final version of its prospectus prior to listing in April 2014. Cheetah Mobile is a spinoff of China's entertainment and applications software company Kingsoft, listed on the Hong Kong Stock Exchange in 2007 (South China Morning Post, 2007). Cheetah Mobile's business mainly involves online marketing services, internet value-added services, and

internet security services (Table 12). Cheetah Mobile raised $168 million in its IPO on the NYSE.

Weibo, often dubbed as China's Twitter, is Sina's spinoff that excelled in the fierce competition among different versions of microblogging services offered by other internet companies in China. Partially owned by Alibaba (18%), Weibo's IPO raised $286 million. Sina's CEO Charles Chao commented that even though the IPO was priced too low, it took the IPO as an opportunity to gain publicity and establish Weibo as an independent public company from Sina (Harjani, 2014).

Alibaba's IPO in 2014 made history despite its rocky beginning. Alibaba was founded by Jack Ma Yun in 1999 and the company owns and operates the country's largest e-commerce platform and extends its reach in logistics, media production, and cloud computing. Prior to Alibaba's IPO, the company was mired in controversies with regards to its former CEO, Jack Ma's spinoff of the online financial service unit Alipay. Alipay is central to Alibaba's e-commerce service. Ma only informed one of the biggest shareholders, Yahoo! five weeks after he separated Alipay and granted himself a 46% stake in Alipay. Alibaba modified the S-1 five times prior to the IPO, mainly providing details about the company's Lakeside Partnership. The Partnership is comprised of 27 personnel and holds the exclusive right to nominate most of Alibaba's board of directors. The company was initially set to launch its IPO on the Hong Kong Stock Exchange. However, Hong Kong authorities would not permit the use of a structure that allowed leading executives to nominate the majority of board directors (Wen, 2014). Yet despite these scandals, Alibaba was priced at $25 billion, making it the biggest IPO on NASDAQ at that time. Alibaba was later sued for securities fraud for failing to disclose meeting with China's State Administration for Industry and Commerce (SAIC) two months before the IPO. During the meeting, Alibaba received the government's warning about the

platform's ability to stop counterfeiting. The lawsuit was settled in April 2019 with Alibaba paying $25 million USD (Stempel, 2019).

Table 13 Revenue Composition of Cheetah Mobile, Weibo and Alibaba

Cheetah Mobile ($ thousands)			
Year	**2011**	**2012**	**2013**
Online Marketing Services	23,916(17.1%)	212,443(73.8%)	612,565(81.7%)
IVAS		2,354(0.8%)	83,155(11.1%)
Internet Security Services	116,138(82.9%)	73,130(25.4)	54,191(7.2%)
Revenue	140,054	287,927	749,911
Net Income (RMB)	-30,235	9,844	62,018
Weibo ($ thousands)			
Year	**2011**	**2012**	**2013**
Advertising- Third Parties	-	51,049(77.4%)	99,291(52.8%)
Advertising- Alibaba	-	-	49,135(26.1%)
Other	-	14,880(22.6%)	39,887(21.1%)
Revenue	-	65,929	188,313
Net Income	-117650	-102,486	-38,115
Alibaba (RMB, in Millions)			
Year	**2010**	**2011**	**2012**	**2013**
China commerce	3,716(55.7%)	7,665(64.4%)	15,637(78.1%)	29,167(84.5%)
International commerce	2,620(39.3%)	3,433(28.8%)	3,765(18.8%)	4,160(12.1%)
Cloud Computing and Internet Infrastructure	144(2.2%)	425(3.6%)	515(2.6%)	650(1.9%)
Others	190(2.8%)	380(3.2%)	108(0.5%)	540(1.5%)
Revenue	6,670	11,903	20,025	34,517
Net Income	-503	1,608	4,665	8,649

Linger in Confusions

As Appendix B indicates, Chinese government have instituted a list of regulations that cover a wide range of online services under the leadership of Xi Jinping and the centralization of regulatory authorities in 2012. A common theme identified in the risk factors reporting among these three companies is the confusion about government regulations on the VIE structure. As the VIE structure is widely adopted by publicly traded internet and technology companies in China, companies are increasingly explicit about the purpose of employing such structure, as Alibaba (2014) stated in its S-1: "we rely on contractual arrangements with our variable interest entities to operate part of our Internet businesses in China and other businesses in which foreign investment is restricted or prohibited."

As measures to bypass national restriction of foreign investment, companies now worry if Chinese government started to recognize them as foreign entities. If government clamps down on the VIE structure and treats it as foreign-owned entities, Alibaba, Weibo and Cheetah all face more severe limitations over their business activities in China. For one, any mergers and acquisitions pursued by foreign entities must undergo a stringent national security review process. The *Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors* was formulated in 2006 and amended in 2009. The General Office of the State Council promulgated a notice on *Establishing the Security Review System for Mergers and Acquisitions of Domestic Enterprises by Foreign Investors*, which officially established a security review system for mergers and acquisitions of domestic enterprises by foreign investors. However, as Weibo stated in S-1:

> "as these rules are relatively new and there is a lack of clear statutory interpretation on the implementation of the same, there is no assurance that the Ministry of Commerce will not apply these national security review- related rules to the acquisition of equity interest in our PRC subsidiary. (Weibo, 2014)"

The legitimacy of the VIE structure is hotly debated by various government ministries, especially within the culture and online gaming sectors. State Administration for Radio, Film and Television (SARFT) and National Copyright Administration (NCA) and Office of National Work Group for Combating Pornography and Illegal Publications jointly issued a rule on *Administration of the Pre-approval of Online Games and Examination and Approval of Imported Online Games*, or Circular 13, that forbids foreign investors from investing, participating, either directly or indirectly through joint ventures or cooperative joint ventures in domestic mobile game operators. A flurry of licensing requirements was put forth yet they are void of standards of implementation, as Cheetah Mobile states in its S-1:

> "As no detailed interpretation of Circular 13 has been issued to date, it is not clear how Circular 13 will be implemented… as some other primary government regulators, such as the MOFCOM, the MOC, and MIIT, did not join in issuing 13, the scope of the

> implementation and enforcement of Circular 13 remains uncertain (Cheetah Mobile, 2014)."

As content regulation further tightened, Weibo, whose businesses heavily hinged on user created content, felt the weight of censorship: "although we have adopted internal procedures to monitor content and to remove offending content once we become aware of any potential or alleged violation" (Weibo, 2014). Similar issues were reported by Cheetah Mobile and "failure to comply with these requirements may result in the revocation of license" (Cheetah Mobile, 2014). Weibo also recognizes that censorship is a cumbersome business cost: "regulation and censorship of information disseminated over the internet in China may adversely affect our business and subject us to liability for information displayed on our platform" (Weibo, 2014). The new legal interpretation in 2014 imposes up to a three-year prison sentence on internet users who fabricate or knowingly share defamatory false information online. The *Rules on the Administration of Microblog Development* stipulate that microblog users are required to disclose their real identity. The responsibilities to make sure all users register with real identities (using cellphone numbers) posed a hike in operation costs and a permanent threat of termination of business operation if not in compliance.

2018: Pinduoduo and iQiyi

Pursuing its IPO in 2018, Pinduoduo is China's rising star in e-commerce and offers a wide range of products from daily groceries to home appliances. Founded by a former Google employee, the company's mission statement resembles the "warm and fuzzy" taglines (Solon & Siddiqui, 2017) of many Silicon Valley companies: "Pinduoduo, as a growing organization, will always dedicate itself to do the right things, to create value for our society, and to make this world a better and happier place". iQiyi, on the other hand, is Baidu's foray into China's

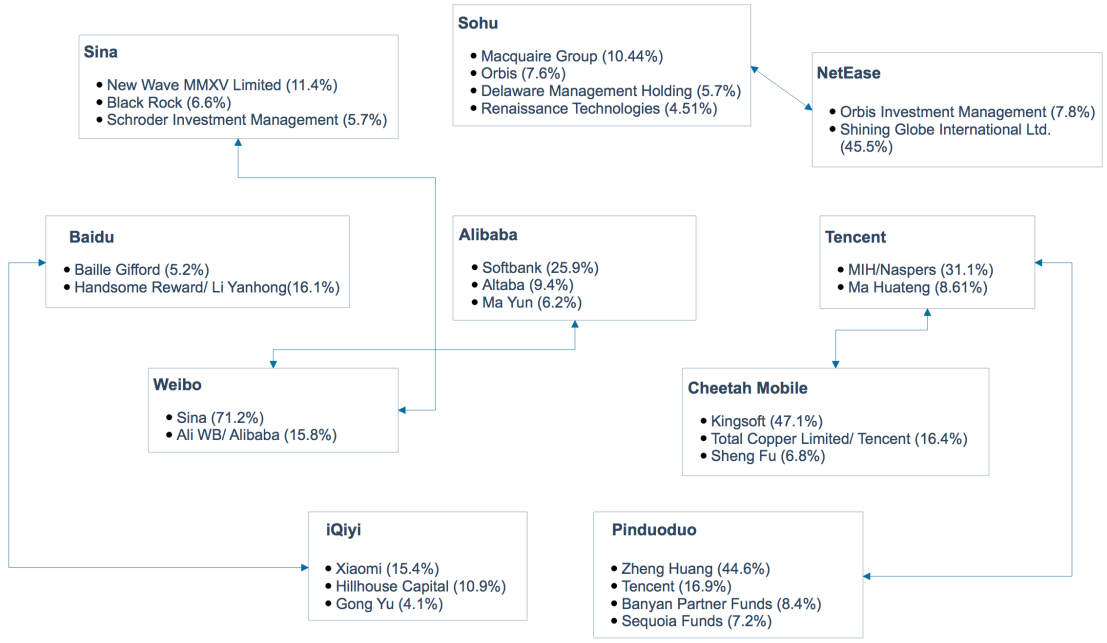
online video market with the goal "to become a technology-based entertainment giant that brings fun and joy to people and their families".

Table 14 Revenue Composition of Pinduoduo and iQiyi

Pinduoduo (RMB, in thousands)			
Year	**2016**	**2017**	
Online Marketplace Services	48.3(9.6%)	1,741(99.8%)	
Merchandise Sales	456.6(90.4%)	3(0.2%)	
Revenue (RMB million)	505	1,744	
Net Income (RMB)	-292	-525	
iQiyi (RMB in millions)			
Year	**2015**	**2016**	**2017**
Membership Services	996.7(18.8%)	3,762.2(33.4%)	6,536(37.6%)
Online Advertising services	3,399.9(63.9%)	5,650.4(50.3%)	8,158.9(46.9%)
Content Distribution	387.7(7.3%)	501(4.5%)	1,191.8(6.9%)
Others	534.3(10%)	1,323.9(11.8%)	1,491.6(8.6%)
Revenue	5,318.6	11,237.4	17,378.4
Net Income	-2,575	-3,074	-3,737

Parasitic Businesses in a Concentrated Market

Figure 7 Cross Ownership of Chinese Internet Companies, 2018



By 2018, the commercial internet market in China shaped up into a networked formation with few nodal points centered around Baidu, Alibaba, and Tencent. Winseck (2011)

explains: "network media industry… it is not convergence, per se, but a network of media tied together through strategies, capital investment, ownership, technologies, uses, alliances rights regimes, and so on. (p. 3)" Pinduoduo and iQiyi's business models exemplify such deep integration and coupling with existing internet and traditional media giants.

Pinduoduo's mobile strategy is built upon Tencent's mobile chat program WeChat. Through the social function on WeChat, users can form buyer groups and obtain discounted deals at a better price than individual sales. Thus, WeChat provides the entry point and assembles traffic for group buying for Pinduoduo. Tencent, at the same time, is also the major shareholder of Pinduoduo. As Pinduoduo stated in its S-1:

> "we collaborate with Tencent, one of our principal shareholders… with respect to… our mini-program within Weixin (WeChat), which serves as one of our access points to our platform, as well as services such as payment processing, advertising and cloud technology. (Pinduoduo, 2018)"

With WeChat's near-infrastructural status (Plantin & de Seta, 2019), Pinduoduo primarily conducts transactions on and through WeChat's social and mobile payment functions. This is also a strategic choice for Pinduoduo to tap the "unwired half" of China's internet population, whose first contact with the internet leapfrogged desktop computers to mobile phones. Pinduoduo's business is predominately mobile.

iQiyi, on the other hand, demonstrates the integration of online business with traditional news and media network through licensing and rights regime. The licensing requirements for online audio-visual content distribution tightened in 2016: local publishers must first apply for approval from the State Administration Press, Publication, Radio, Film and Television (SAPPRFT) for the distribution of content. In content distribution, the 2016 *Online Publishing Services Management Rules* advocates for the promotion of China's core socialist values. Wang and Lobato (2019) point out the major effect of the licensing rule is that each video platform must be structurally linked to a state-controlled television network,

which holds the licence for internet TV to provide much of its content. iQiyi formed a partnership with the state-owned media network and partakes in a national cultural and political project (Wang & Lobato, 2019). The collection and publication of news online is strictly prohibited, iQiyi then must rely on securing rights, such as copyright, rights to adapt original content into variegated cultural products. This business model further interlocks iQiyi tightly with traditional media networks.

As the commercial internet in China grows more oligopolistic, market regulation attracts much attention. On the one hand, the Chinese government is concerned about missing out on the opportunities to cash out on the lucrative marketization and profit distribution of internet companies. On the other hand, the government is closely watching anti-competitive behaviors between platforms, which might generate contentions or pose socially destabilizing effects. There is a sharp increase in lawsuits between companies as competition intensifies: NetEase bashed Momo, a company backed by Alibaba, on the day of its IPO (Jin, 2014). Baidu and ByteDance are suing each other for stealing search results and short videos, respectively, for the exact same amount, a 30-day public apology and 90 million RMB compensation (Zhao, 2019) and the anti-trust lawsuits between Qihoo vs. 360, ByteDance vs. Tencent (Yang, 2018). The *Anti-Monopoly Law* (Ministry of Commerce, 2008) promulgated by Ministry of Commerce stipulates if certain thresholds are triggered (revenue exceeding $400 million), business transactions such as M&A activities need to notify and get approval from the Ministry. Both Pinduoduo and iQiyi addressed such procedures and its associated uncertainties in their S-1, although it is reported that many Chinese internet companies are deploying measures to avoid triggering the thresholds by divesting the companies.

In the risk factors reporting of Pinduoduo and iQiyi's IPO prospectuses, the possibilities to return to Chinese securities markets and anti-monopoly regulations reflect the uncertainties of market regulation. Pinduoduo reports:

> "currently the Chinese central government is proposing new rules that would allow Chinese technology companies listed outside China to list on the mainland stock market through the creation of Chinese Depositary Receipts... there are uncertainties as to whether a pursuit of CDRs... (Pinduoduo, 2018)"

Plethora of Permits

Over-regulation of Chinese media, telecommunication and internet has frustrated foreign investors. Dozens of government ministries and official agencies may issue rules, creating considerable potential for duplication and confusion. For example, more than 50 permits are needed to operate a single website (Lin, 2007, pp. 101-102). As China's commercial internet grows rapidly, especially with mobile internet, regulations proceed apace. In 2014, pay-for-performance, or P4P services were not classified as a form of online advertising nor part of the services that need an ICP licence. However, the classification changed in 2016, putting P4P under the categories of online advertising. The labyrinthine compartmentalized licensing processes create confusion and overlaps between each type of services. iQiyi, for example, reports that the company is yet to obtain a permit for internet news information service (for publication of political news) or internet publishing service license (for online games, comics and online literature).

Figure 8 shows the operating licenses of iQiyi. The company has obtained operating license for twenty types of services ranging from advertising, electronics sales, health consultancy, financial information services, online content production and broadcast (excluding news, health-related educational materials), content distribution networks and data centers. Eight permits were subject to renewal upon expiry dates.

Figure 8 iQiyi Operating License

Conclusion

As the internet is increasingly integral to China's national physical infrastructure and the fabric of the citizens' everyday lives, it is ever more poignant a goal for the Chinese government to carefully recalibrate and balance the industrial and commercial growth of internet with the political project of maintaining Party legitimacy, ideology building, and stability maintenance. As current debate centers on the key questions of to what degree Chinese government regulates and censors the internet, this chapter suggests that government *inaction*, or lack of regulation, either delayed by the byzantine and conflicting regulatory structure, or simply through lags in carving out the actual enforcement measures following policy making, in many cases, created an *enabling* environment and an opening for capital to step in and afford internet companies the relative freedom to grow, profit, and consolidate.

Through the examination of ten leading Chinese internet companies' IPO prospectuses, this chapter delineates and reconstructs a historical metamorphosis of the institutional contexts (both domestic regulation and the dynamics of digital capitalism) under which leading Chinese internet companies capitalize over time. Tracing the IPO process from 2000s to 2018, the capitalization and financialization of Chinese internet companies are

simultaneously in sync with the dynamics of global capitalism, the boom-and-bust cycle, and the rise of financialized capitalism. This analysis shows that the internet in China is subsumed as process of capital accumulation and circulation with leading Chinese internet companies seeking foreign capital financing on overseas stock market, therefore instilling a strict financial discipline to company operations to meet the shareholder's value. The rise of financialization, which denotes the centrality of finance institutions in ownership and financial calculations and consideration as the perimeters of company management, are manifested in the ownership and operations of Chinese internet companies. Meanwhile, these aforementioned processes are always situated within the institutional context and limits of Chinese internet regulation and carry on national specificities that come to shape their unique business model, operating costs, organizational structure, and so on.

Specifically, there are four main takeaways. ***Firstly***, looking at the financialization processes, **publicly listed Chinese internet companies demonstrate converging characteristics with their Silicon Valley counterparts.** Bleak profit outlooks, some even operating at loss, and the constant search for viable business models are common among listed companies, and some claim a no-dividend policy[24] to their shareholders. Yet despite this, Chinese internet companies still score large IPOs, which indicate the financialized characteristics of the economy and the ascendance of speculative value. As Nick Srnicek (2016) notes in platform capitalism: what is sold to advertisers is therefore not the data themselves, but rather the *promise* that Google's software will adeptly match an advertiser with the correct users when needed (p. 57). Looking at corporate control, most publicly listed Chinese companies deploy a dual class share structure to secure strong owner control, unless the dual

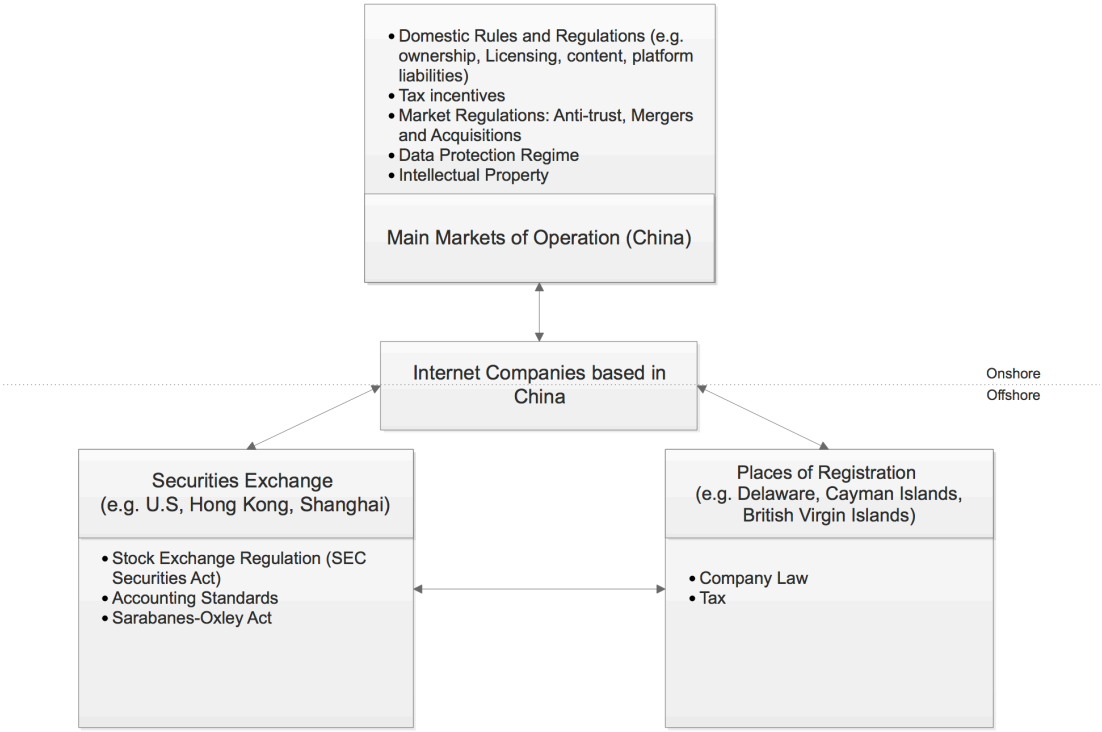
[24] For example, Pinduoduo states: "we currently intend to retain most, if not all, of our available funds and any future earnings after this offering to fund the development and growth of our business. As a result, we do not expect to pay any cash dividends in the foreseeable future."

class share structure is prohibited by the stock exchange. Hong Kong Stock Exchange did not allow the dual class share structure until 2018, and this is why Tencent adopted a single class share structure at time of its IPO. An extreme case was Sina, the company changed its single class share structure after the proxy fights with one of its shareholders, Aristeia Capital, that sought changes to merge Sina with Weibo to improve profitability (Wong, 2017). Now Sina's A class share has a staggering 10,000 vote per share and 56.8% of the A shares are owned by its CEO Charles Chao.

Secondly, even though many companies successfully raised funds overseas, **there are clearly differentiations in the size and scale of companies and different power distributions**. As Table 8 shows, the market capitalization of Baidu, Alibaba and Tencent (BAT) dwarfs the sum of the smaller companies. This speaks to BAT dominance in the domestic market. Through cross-ownership, BAT weaves a networked internet industry ecology in China. Newly emerged companies, such as Pinduoduo and iQiyi are parasitic on large, infrastructural-like platforms. This trend synchronizes with the rise of a handful of infrastructural-like platforms such as GAFAM[25] globally (Plantin, Lagoze, Edwards, & Sandvig, 2016; van Dijck & Poell, 2013; Hindman, 2018; Srnicek, 2016).

[25] GAFAM denotes Google, Apple, Facebook, Amazon and Microsoft

Figure 9 Governance of Publicly Traded Chinese Internet Companies



As internet companies in China seek to fund and finance their growth and expansion in global circuits of capital, they also subject themselves to various regulations, including but not limited to the set of rules for public listing on stock exchanges (SEC regulations, GAAP, stock exchanges' investigations into accounting firms) and laws and regulations in their place of registration (Cayman Islands and Delaware). The overlaps between different legal frameworks (as captured by Figure 9) also create leakages, spaces and openings.

Meanwhile, given the dependency on the U.S stock market as a critical means to access capital, Chinese internet companies in some cases are more responsive to foreign market regulations than domestic ones. For the example, the U.S leverages its structural power over conditions for entry to its financial market, and Alibaba has adopted United States Trade Representative's requirement to protect intellectual properties to an extent that exceeds the legal requirements in the Chinese law (Tusikov, 2019). Taking advantage of the lack of an

overarching master plan of internet governance domestically (Hong & Xu, 2019), globalizing internet companies in China not only chase after capital and investments but also source and shop for preferable policies and legal regimes worldwide. This also represents the process of negotiation undertaken by transnational capitalism as it enters China: this negotiation entails the development inside the nation states- through legislative acts, court rulings, executive orders and policy- of the mechanisms necessary for the reconstitution of certain components of national capital into global capital (Sassen, 2005).

Thirdly, as an IPO prospectus offers a condensed view of the development of commercially driven internet companies (Elmer, 2017), **structural changes in the business models of Chinese internet companies are sometimes direct answers to regulations, instead of mere responses to market signals**. Licensing, as well as other measures governing the internet creates institutional forces that shape the company's organization structures, business models and profitability. Meanwhile, the state carves out an enabling condition for the entry of foreign capital by allowing U.S.-based transnational corporations, including banks and investment firms to fund and underwrite the IPO. While the guideline for internet governance gradually evolves to a new outlook by combining administrative measures and the mobilization of law, the Chinese government still tolerates companies taking advantage of legal loopholes to bypass the restriction of foreign ownership. The Chinese state harnesses leading internet companies as the vehicle for accumulations as part of the nation's ICT-led development strategy. In 2001, the sixteen-word doctrine in regulating internet highlighted the theme of *practical* considerations of how to enforce regulations: hastening development, enforcing regulations, leveraging strength and circumventing disadvantages, and harnessing regulations for the nation's uses and needs (积极发展，加强管理，趋利避害，为我所用).

As China's internet governance is undergoing the transition from regulatory enforcement to establishing and consummating the "rule of law"[26], legislations mushroom over the years and expand in scope and scale. The rapid speed at which new regulations are put into place, or the ad hoc layering of new restrictions (Hong & Xu, 2019), creates discordance with subsequent enforcement standards and procedures, leaving companies uncertainties, freedom, and spaces for maneuvering. The problems of enforcement, however, are not new. As Yuezhi Zhao (2004) summarizes, the highly arbitrary and piecemeal responses to rising problems of media control are not always enforced; nevertheless, they represent the Party state's effort to make media control more acceptable by virtue of its predictability (p. 181). In fact, the commercial growth and capitalization of Chinese internet companies, as the IPO prospectuses show, hinges on the vacuum of regulatory compliances. The deployment of the VIE structure and unbounded market concentration often pose risks to equity protection for foreign investors (Culpan, 2019). The onerous and cumbersome certification/licensing process further erects barriers to entry for start-ups (Segal, 2013).

Fourthly, this analysis complements previous study on the ***discursive*** **and** ***performative*** **aspects of IPO prospectuses as hegemonic devices in advancing financial interests and setting the price for share offerings**. It also establishes the IPO as an important accounting device to legitimize substantial legal opacities and ambiguities of the very organizational structure (such as VIE) Chinese internet companies build on, the lack of equity rights protection for investors, and lack of regulatory compliances in conducting business in the evolving governance of the internet in China. Not only is China's internet *governance* a socio-

[26] Governing the internet according to the rule of law (依法治网) is part of China's internet sovereignty as defined by President Xi Jinping. This effort answers to the lack of legal protection of individual rights. However, it translates into an expansion and the strong hold of state power in safeguarding the internet in China.

legal formation shaped by the structural influence of global digital capitalism and a range of sequences and determinations born of Chinese particularity (Hong & Xu, 2019), the way Chinese internet companies is financialized and globalized into the capital market is also co-shaped by both state actors and capitalism. The IPO prospectuses, as an *interface*, crystalize the accounting of regulatory risks as economic ones at specific historical periods and in institutional contexts. IPO prospectuses offer insights into how regulation is experienced by Chinese internet companies as an element of corporate management, operation and forward-looking planning. It is here that the close interaction between economic and political forces prevails, co-shaping the internet in China, making them strange bedfellows in exploiting the technical system as instruments for consolidation of political control and capital accumulation. As global capital enters the Chinese internet industry, the state's active regulation (or lack thereof) is crucial in creating the institutional settings for the capital's entry. This illustrates Saskia Sassen's (2005) observation of the "global inside the national", whereby capital border crossing is not necessarily geographical border crossing but through the politico-economic system located inside the national state.

Chinese Internet Companies and Digital Capitalism

The question of value lies at the center of the capitalization of Chinese internet companies and how it is recognized by venture capital and stock market. Worldwide, tech companies are taking over traditional industries with skyrocketing market capitalization in the stock market, and in often cases market valuation dwarfs the company's actual earning. With little trading history, few assets and production of no profits or dividends, emerging internet companies cannot be valued by usual accounting measures (Davis, 2018).

As the internet is said to usher in a new economic model—even a new age of development of capitalism (e.g. platform capitalism and surveillance capitalism), economists

offer explanation by looking at balance sheets and investment (Bartov, Mohanram, & Seethamraju, 2002); Marxists political economists, on the other hand, turn to analyzing the production and commodification processes (Fuchs and Sevignani, 2013; Dantas, 2019); critical media scholars contest the labor-centric approach to value creation and suggest a financialized understanding of internet companies instead (Elmer, 2019; Davis, 2018). Value is not readily realized but instead speculated and derived from the ability to collect data and (the potential ability to) make inferences upon them (Arvidsson and Colleoni, 2012; Arvidsson 2016). The different analyses of value creation of the internet suggest that there is hardly a conspicuous business model and it is constantly evolving, which makes the *justification, speculation, and search* for value is as important as the actual realization of value (for example, the generation of profit).

Much of the discussions on value focus on the U.S-based companies in a liberal democratic marketplace, where state is a distant factor. However, in the case of China, where state presence is much more conspicuous, things are not so different. Even though risks of regulation and regulatory uncertainty impose liabilities on company operations and are systematically reported throughout historical IPO prospectus, it seems investors largely bank on the lack of enforceability by investing in the Chinese companies. The enforceability and operationalization of regulation in China is a consistent problem reported in academic literature. However, for capital investors, this seems to provide investment opportunities.

The fact that Chinese internet companies have scored large IPOs in stock market shows insufficient the assumption that free trade is conducive to free flow of information. As the analysis of the historical IPO prospectuses shows, China's tightening of internet control, especially in terms of access and content has not deterred the capital market's zest in investing in Chinese internet companies. Regulation is regarded, accounted and treated as a risk to

business operation and profit-making. China's case also shows a much more entangled role of the state as a risk factor in a company's valuation. In response to state intervention, companies need to devise models (such as VIE), operational structures (separation of businesses to avoid anti-monopoly investigations) and cost-cutting mechanisms (such as self-regulation and censorship) to work-around and bypass its effect on profitability.

Through a close reading of the prospectus, it shows the financialized nature of Chinese internet companies as they establish one holding company as the listed entities (in the VIE structure) and maximize returns between contractual subsidiary units, as shown in financial reporting. Companies are restructured and reorganized to functionally separate the units that are not allowed to receive foreign investment and those are legally permitted to do so (such as Sina, Sohu and Alibaba). Among the ten companies analyzed, advertising revenue is still the predominant business model. In other words, the revenue from advertising is cross-subsidizing the expansion and development of other types of services. In general, Chinese internet companies were barely breaking even at time of IPO, and there exists great divergence between the companies' stock values and their actual monetary losses.

Another key observation in the IPO prospectus is that many segments of businesses were quasi-legal or extralegal and yet to be recognized in formal regulations at times of trading. For example, Baidu's MP3 download service and pay for performance advertising sales, which later were outlawed by regulators, and most prominently, the VIE structure—the very organizational structure that enables Chinese internet companies to be traded on foreign stock exchange, to this day still exists in a grey legal area. The lack of regulatory enforcement and *inaction*, in other words, can be read as the concession that the Chinese government has made strategically to accommodate the demand for capital in burgeoning domestic businesses.

Overall, analyzing the historical changes in the IPO process shows that the internet does not bring freedom to China but more of "financialized capitalism with authoritarian characteristics". With regulatory inaction and lack in enforcement by the Chinese state, capital lands on a new market (since 2000s) and finds a new pole of growth. The capitalization process also brings to the fore an important force that shapes the development of Chinese internet—the United States and its structural power over global financial markets and stock exchanges, and its technological power as presented by U.S-based internet businesses. The next chapter examines the inevitable encounter as China opens up the internet sector to the entrance of a foreign competitor: Alphabet.

Chapter Five: Alphabet in China

China has opened up its domestic internet sector to foreign capital by allowing its internet companies to seek investment and capital overseas. At the same time, the opening of domestic market also inevitably invites the market entrance of foreign competitors. This chapter focuses on the case study of Alphabet. As the holding company of Google, Alphabet is not only a successful capitalist internet company but also is the very embodiment of U.S values and imperialism in the digital era, from the infrastructural level, to monopoly of online advertising, and the Googlization of public services (Jin, 2013; Vaidhyanathan, 2011; Winseck, 2017). Examining the political economy of Alphabet's development in China—the company that, ironically, does not exist in the Chinese market after it relocated servers to Hong Kong in 2010, this chapter shows that Alphabet does not simply withdraw from China but instead adjusts its position to remain in the booming Chinese internet industry.

This chapter takes stock of Alphabet's expansion in China from 2000 to 2019 and historicizes its development into three phases: as investors, as market participants, and as a strategic collaborator with Chinese internet companies. Looking at shifting corporate strategies, it shows that Alphabet eyes China and its vast data market and shares common commercial interests with giant Chinese internet companies under the driver of capital. However, Alphabet's expansion in China is enveloped by the clash over internet values envisioned by the U.S and China. The vested commercial and strategic interests of Alphabet in China pit the company against a coherent iteration of national interests, namely, the U.S freedom to connect agenda vs. China's internet sovereignty agenda. The highly dynamic relationships between Alphabet and the Chinese internet market, oscillating between cooperation and competition, epitomize how the interactions between state and capital give rise to both centripetal and centrifugal forces in the globalization of Chinese internet.

The significance of examining Alphabet's history in China is threefold: first, it shows how the Chinese market reconfigures and reacts to the entrance of the world's biggest internet company; secondly, it shows how Alphabet adopts shifting corporate strategies to penetrate the foreign market, including strategically leveraging the U.S-China national differences on internet governance; thirdly, in lieu of the ongoing U.S-China trade contestations, Alphabet's case serves as an exemplar of how China, the emerging tech power wrestles with the structural power of U.S in global finance and its hegemony over commercial internet development.

China and U.S View of the Internet: Differences and Fragmentation

The building of an extraterritorial network, such as the internet, always involves the participation of multiple stakeholders: from state actors, corporations, and technical experts to average users. The interconnectivity and universality of the internet was never mandated when it was first developed. Although technical experts have devoted efforts to ensure the interoperability and interconnectivity of the internet, the territorial-based logic of nation states, the private-sector-led internet governance framework, together with the transnational logic of capital all try to overlay geopolitical borders on the internet (DeNardis, 2016). While fragmentations on the internet may appear as problem to some (Drake, Cerf, & Kleinwächter, 2016; DeNardis, 2016), others see it as inevitable (Noam, 2013). The clash over values, national industrial policies that focus on protecting national markets and market players, as well as cybersecurity concerns and internet control are centrifugal forces that dismiss the ideal of a global internet (Noam, 2013).

China and the U.S represent two contrasting views of internet governance doctrines. China has been a firm advocate of a state-centric view of cyber sovereignty, which means the absolute, exclusive right of the state to control its domestic internet environment, and its

citizens' interaction with that environment (McKune & Ahmed, 2018, p. 3837). Under such a tenet, China has built a national-centric web at the infrastructural level, and in its day to day management and policing of online behaviors and content, reflects the thinking that the internet is a cultural resource whose reach is circumscribed by the state (Hu & Peters, 2019). The U.S, on the other hand, is an avid proponent of the internet freedom agenda (Powers & Jablonski, 2015; Schiller, 2014). Yet, the internet freedom agenda can only be achieved through the promotion of a particular conception of networked communication that depends on American companies, supports Western norms such as copyright, advertising-based consumerism, and promotes Western products (Powers & Jablonski, 2015, p. 6).

The ideological standoff is reified in both Chinese and U.S. official policy discourses (Clinton, 2010; State Council Information Office, 2010). For the U.S, official speeches, policy research and government reports lodge Chinese internet censorship and information control under two categories of concern: as threats to liberal democratic values, and as economic and trade issues. These two concerns, under the overarching free flow of information and free trade framework that prioritizes economics over political freedom to guarantee the internet as infrastructure for capital accumulation, are tantamount to threats for U.S national security, especially economic security (Schiller, 2014, p. 171; Powers & Jablonski, 2015). For example, the U.S delegation to the World Trade Organization raised China's regulation on virtual private networks (VPN) and data localization rules as issues of trade barriers and disruption to data security to the Council for Trade (Delegation of the United States, 2018).

U.S and China have a history of clashes of value with respect to the internet. The U.S.-China Economic and Security Review Commission has held three hearings on internet in China: the 2006 United States House Committee on International Relations on *The Internet in China: A Tool for Freedom or Suppression*; *China's Information Control Practices and the Implications*

for the United States in 2010 after Google's withdrawal from mainland China; and the 2017 hearing on *China's Information Controls, Global Media Influence and Cyber Warfare Strategy*. As China is quickly catching up and building its own technology autonomy (Zhao, 2010), U.S regulators have levelled concerns about the financial risk of investing in publicly listed Chinese internet companies, Chinese investment as a threat to U.S national security, China's poor records on intellectual property as threats to market competition and China's problematic use of anti-monopoly law targeting U.S companies in China (U.S. Chamber of Commerce, 2014). These concerns show the perceptions that internet controls not only violate human rights and freedom of expression but also pose economic and trade-related risk as China rises as a tech power.

China, on the other hand, has championed the cyber sovereignty agenda that first and foremost ensures that cyberspace is institutionalized and governed within the jurisdictions of the Chinese government and Chinese laws. The cyber sovereignty concept provides justification for government regulation and interventions for the purposes of maintaining political stability, national security and economic development. As detailed in Chapter 3, Chinese government also devises a series of national plans, industrial policies and policy objectives to secure and foster the growth of domestic ICT and telecommunication sectors and companies. The Chinese government takes on multiple roles, as regulator, investor, and buyer in building China into a cyber power (Chen, 2019). The Snowden Revelation provided an opportune moment for the Chinese policymakers to hasten indigenous technological development to safeguard national security, which led up to the creation of the central leading group on Cybersecurity and Informatization in 2012.

China is critical of U.S dominance over the internet and often portrays itself as a victim under the U.S hegemony over the internet. Captured by one commentary published on the Party's English news outlet *Global Times*:

> "The core of US competitiveness lies in American companies' technology competitiveness, which plays an important role in helping keep U.S. a leader in the world. The competitiveness of China also depends on its enterprises. The U.S. crackdown on Chinese high-tech companies results from the needs of U.S. capital. The U.S. capitalists won't give up a penny of profit and the internet market is the most profitable in the future. (Lu, 2019)"

As one of the world's largest internet companies based in the U.S., Alphabet (Google) has a tumultuous history with China—not the least complicated by the already culminating tensions on U.S-China geopolitics and competitions to claim the upper hand in the development of information and communication technology. Taking stock of the transitions of Alphabet's role in the Chinese market makes explicit the entangled interests between corporations that do not map perfectly onto the binary oppositions between China and U.S.

Retelling Alphabet's Story in China

Now one of the world's largest internet companies, Google was founded in 1998. The company went public in 2004. It was later restructured as a wholly owned subsidiary of the Alphabet corporation in 2015. The company is valued at 988 billion (as of January 2020). As Table 14 shows, Alphabet derives most of its revenue from online advertising. With many research and development efforts as well as investment in its flagship product AdWords, Alphabet monopolizes online advertising markets together with Facebook. As Table 15 shows, Alphabet developed into a global company, with international revenue contributing the majority of company's annual revenue since 2008. The Google segments, such as Google Search, Google Map, and Gmail generated the bulk of revenues. Alphabet's products have become defining in many parts of the world where scholars are concerned about its power, such as the Googlization of everything (Vaidhyanathan, 2011), its power as the infrastructural

platform that our daily lives are depend on (van Dijck, Poell, & de Waal, 2018; Moore & Tambini, 2018; Plantin, et al., 2016; Plantin, 2018), and as owner of telecommunication infrastructures such as undersea cable (Yeo, 2016; Winseck, 2019).

Table 15 Alphabet Revenue by Segment (in millions USD)

Year	Ad Revenues	Licensing & Other	Other Bets
2002	411	28.6	
2003	1420.7	45.3	
2004	3143.3	45.9	
2005	6065	73.6	
2006	10492.6	112.3	
2007	16412.6	181.4	
2008	21128.5	667.1	
2009	22889	762	
2010	28236	1085	
2011	36531	1374	
2012	43686	2353	
2013	51072	4435	12
2014	59624	6050	327
2015	67390	7151	448
2016	79383	10601	288
2017	95375	15003	477
2018	116318	19906	595

Source: Google and Alphabet's Annual Reports

Table 16 Alphabet Revenue by Geography

Year	United States	International
2002	78%	22%
2003	71%	29%
2004	66%	34%
2005	61%	39%
2006	57%	43%
2007	52%	48%
2008	49%	51%
2009	47%	53%
2010	48%	52%
2011	46%	54%
2012	46%	54%
2013	45%	55%
2014	45%	55%

2015	46%	54%
2016	47%	53%
2017	47%	53%
2018	46%	54%

Source: Google and Alphabet's Annual Reports

2000-2010: Branching Out and Diving In

Between 2000 and 2010, Google's position in China changed from an investor to an active market participant. Google first offered a Chinese-language version of its search engine in 2000. However, the sporadic blockages and interruptions of its search service become a problem for Google. For example, in 2002, Google search's domain name was hijacked by the Chinese government and its search traffic was redirected to Tianwang Search, a search engine operated by Peking University (Lemon, 2002). Some also found that the Chinese government routed Google's search traffic to Shanghai Hotline (www.online.sh.cn), a web service run by China Telecom (Kahn, 2002). In 2004, Google bought minority stakes in Baidu in a fundraising round led by venture capital fund Draper Fisher Jurvetson ePlanet Ventures (Delaney, 2004). In 2004, Baidu acquired the online web portal hao123.com and went for public listing on NASDAQ. Google sold the Baidu share two years later in 2006 and started to prepare for its entry into the Chinese market.

Google launched the Chinese search service in Google.cn in 2006 in China. Google's entry into the Chinese market generated vehement public debates and criticism in the U.S because the company accepted Chinese government's request for censorship as a *premise* of its entry. Internal and external pressures were mounting around Google's censorship activities in China. New York City's Comptroller, William Thompson Jr., called on Google and Yahoo! to resist demands for censorship and ensure that they do not engage in any "proactive censorship" (Gardiner, 2006). The New York City's pension fund owned about $276 million worth of Google stock (Gardiner, 2006). *Chicago Tribune* issued an open letter to Larry Page,

co-founder of Google, in reaction to the comments made by Eric Schmidt. Schmidt stated that he had no plans to lobby the Chinese government to loosen its handcuffs on internet searchers: "I think it's arrogant for us to walk into a country where we are just beginning operations and tell that country how to run itself" (Page, 2006).

The U.S House of Representatives hauled Google, Yahoo!, Cisco Systems, Microsoft to a hearing before the United States House Committee on International Relations on *The Internet in China: A Tool for Freedom or Suppression* (2006). Google's then-Vice President of Global Communications and Public Affairs, Elliot Schrage, acknowledged that Google ceded to government censorship. Schrage stated: "where there are only imperfect options, we think we have made a reasonable choice" (Goldenberg, 2006). He also revealed that without receiving a list of censored words, Google set up a computer inside China and programmed the computer to access websites outside China one after another to figure out what was deemed illegal. Google justified its China entry as a "decision stuck between a rock and a hard place", of either comprising the company's mission by failing users in China or censoring search results (Google Official Blog, 2006).

In 2006, Google's other services such as Google News and YouTube were not making headway in China due to censorship and occasional blocking and filtering. As a conscious choice, Google did not launch its Gmail and blog service to avoid the problems that Yahoo! and Microsoft had confronted in China. Both Yahoo! and Microsoft were under criticism for turning political dissenters' information over to the Chinese government (Thompson, 2006).

As a foreign internet company, regulations in China mandated Google to form joint ventures with Chinese internet companies in order to obtain business license to operate in China. Google has partnered with Chinese internet company Ganji.com and operated directly off of Ganji.com's license (Binder, 2018). In June 2007, Google received preliminary regulatory

approval by the Ministry of Information and Industry to establish internet content provider service in partnership with Ganji.com (Poon, 2007). Ganji.com and Google established the Beijing Guxiang Information Technology joint venture (Ye & Lai, 2010).

Table 17 Licensing Requirements for Foreign Internet Companies Operating in China

		Online Internet Cultural Activities and Online Publishing Services				
Sector	**Internet Search**	**Online Games**	**Mobile Apps**	**Mobile Games; Instant Messaging; Live Streaming; Internet Culture Activities**	**Online Publishing**	**Online Audio-Visual Services**
Foreign Shareholding Cap	50%	No restriction on game production; Prohibited on game operation	50%; No cap for app store operation registered in China Pilot Free Trade Zone	Prohibited	Prohibited	Prohibited
Licensing Requirement	VATS	VATS	VATS, ICP			
Licensing Agency	Central and Local MIIT	Central and Local MIIT, Ministry of Commerce	MIIT, CAC			
Other Regulatory Approval		Ministry of Commerce (game content), SAPPRFT (publication of games); CAC			SAPPRFT approval is needed if foreign entity co-operates a project with Chinese publisher	Joint venture is allowed for advertising, marketing, payment settlement, technical services and program production and sales

By 2004, the rise of domestic search engine Baidu challenged Google's dominance in China. To further establish market reach, Google formed synergies with many Chinese internet companies to compete with Baidu. In June 2007, Sina, the country's leading portal website, entered into a partnership agreement with Google to cooperate on search, advertising and branding (see Figure 10). Sina replaced its web page search powered by iAsk with Google's Adwords service (Sina, 2008). In exchange, Google obtained access to Sina's China news, which was filtered content (Watson, 2007). Google's competitor, Baidu, on the other

hand, teamed up with Microsoft to distribute paid-for-listings ads on Microsoft pages on MSN, Live and other partner websites (Shanghai Daily, 2006). Google also formed an alliance with national telecom carrier China Mobile to provide internet search services (ZDNet China, 2007). Google also invested in social network site Tianya.cn (Reuters, 2007). After Google launched its Chinese search service in 2006, it fiercely expanded by forming partnerships with Chinese online web portals and mobile telecommunication operators. Although with declining revenue over the years, by early 2007, Google, with 19% search revenue, was still a formidable competitor to Baidu (57% search revenue) (see Table 16).

Figure 10 Google Search Box on Sina Home Page

Google's relative decline and Baidu's rise in market dominance were due to shifting composition of Chinese internet user demographics and changing cultural preferences as the internet penetrated widely the top echelon of the society and reached a wider makeup of the population. In the early 2000s, music downloading was the niche of Chinese internet market and the driver for web search traffic. According to an internet user survey conducted by the Chinese Internet and Network Information Center (CNNIC), one of the most-used functions for search engines in China was to look for music. In 2006, 30.5% of internet users reported

they used search engine to download music and this number rose to 88% in 2010 (CNNIC, 2007, 2010). Even in 2013, music and video contents (60.1%) were still among the top reasons that drove search engine use, following closely after the search for news (60.8%) (CNNIC, 2013).

Google and its competitor Baidu were caught in the race to win the free music download service in order to fortify the search engine's market penetration. Baidu formed a partnership with Viacom's MTV and 56.com, a video sharing site in China (Xinhua, 2006). In 2008, Google struck a deal with China's Top100.cn to offer up to 1.1 million licensed songs in order to up its music download game with Baidu (Shanghai Daily, 2008). The Top100.cn and Google partnership allowed users to download copyrighted songs for free—first of its kind (Chao, 2010; Barboza, 2009). Google then brokered Top100.cn's ad sale and sold five million RMB ($732,000) in ads (Chao, 2010). In 2007, Google acquired a 4% stake in the Chinese counterpart of BitTorrent, Xunlei, for $5 million to allow the website to use Google's search functions (Barboza, 2007). The Google-Xunlei partnership also afforded Google a foothold in China's music download market.

In 2008, Google purchased 265.com, a portal website founded by Chinese internet entrepreneur Cai Wensheng. Chinese regulation bans foreign companies from owning a majority stake in a value-added telecommunication service. 265.com operates as a joint venture with Google. Even though the website is named "Google 265", the search queries entered on 265.com are directed to Baidu. 265.com operated as a proxy to collect and harvest data on Chinese internet users' search behaviors and was later used to curate a list of censored words for Google to launch its (failed) comeback to Chinese search market, the Dragonfly project (Gallagher, 2018).

Table 18 Market Share of Baidu and Google in Chinese Online Search Market

	2003	2004	2005	2006	2007	2008	2009	2010
Baidu	30.7%	46.5%	N/A	62.1%	63%	76.9%	72%	79%
Google	34.8%	34.5%	N/A	25.3%	19%	16.6%	23%	11.4%

Source: Xinhua, 2006; IDG News Service, 2009; Efrati & Chao, 2012; Soo, Dai, & Yang, 2018.

As domestic competition intensified, in 2009, domestic regulatory pressures were mounting on Google's search service. The company was under government scrutiny for spreading pornographic and vulgar contents online and the company received the punishment of suspending its ability to search foreign websites and provide a word-search function (Gov.cn, 2009). Google was also embattled in various lawsuits with regards to Google Books, where Mian Mian, a Shanghai novelist accused Google of scanning her novel *Acid Lover* and posting it on Google Books without notifying her or obtaining her permission. Later, China Written Works Copyright Society accused Google of scanning 18,000 books without authorization (Jia & Yu, 2009). Google issued an apology to author Mian Mian (Jacobs, 2010). Google's expansion into the Chinese market has received lukewarm success, as its market share for online search continued to decline as Baidu consolidated its position of market dominance.

2010: The Sudden Halt

> "So earlier today we stopped censoring our search services- Google Search, Google News, and Google Images- on Google.cn." –Google Public Policy Blog, 2010

Former U.S President Barack Obama's 2009 visit to China was the barometer that signaled Google's later pullout. During his visit, President Obama criticized China's internet censorship (Branigan, 2009). At the beginning of 2010, Google claimed that it had been the target of a highly sophisticated and coordinated hack attack against its corporate network (Drummond, 2010). Hackers had stolen intellectual property and sought access to the Gmail accounts of human rights activists. On Google's Official Blog, it initially indicated attempts to

"work with the Chinese government on the basis Google could operate an unfiltered search engine within the law, if at all" (Drummond, 2010). Two days later, things took a dramatic turn. Google's problem in China escalated into a bilateral diplomatic event, where the then-Secretary of State, Hillary Clinton stated in the *Remarks on Internet Freedom*: "increasingly, U.S companies are making the issue of internet and information freedom a greater consideration in their business decisions… the most recent situation involving Google has attracted a great deal of interest" (Clinton, 2010). Later, the White House spokesman, Bill Burton said, "all we are looking for from China are some answers" (Wong, 2010). China, on the other hand, was standing firm on its position, deflecting Google's allegation. The Foreign Ministry spokeswoman Jiang Yu commented: "China welcomes international Internet business developing services in China according to the law… Chinese law proscribed any form of hacking activity" (Buckley & Hornby, 2010).

Two months later in March 2010, Google announced that the cyberattacks originated from China and Google would stop censoring search results from China and rerouted search traffic to its uncensored Hong Kong site (Drummond, 2010). The company attributed its withdrawal decision to the limits on free speech and continued attacks and surveillance in China (Drummond, 2010). Google Search's withdrawal from mainland China was a watershed moment and a window of opportunity for the Chinese government to put out, for the first time in history, a concrete framework of "internet sovereignty" in the 2010 *Internet in China* white paper (The Information Office of the State Council, 2010). The concept of sovereignty rises to the fore in China's internet policymaking. Since that moment, the tensions between the two countries have been increasing (Negro, 2019, p. 80).

Google's Chinese joint venture and partnership ended abruptly after the exit of its search service, leaving shareholders in dismay (Tan & Tan, 2012) and retarding the rollout of

China Mobile's Android-based phones (Helft & Wines, 2010). Google's partnership with Top100.cn was also terminated when Google ended free music downloading and streaming services. Top100.cn lost the traffic diverted by Google (80% of the company's total traffic) and advertising revenue (Chao, 2010).

Google's withdrawal from China was heralded in Western media as heroic defiance to state censorship and "self-imposed China exile" (Singel & Kravets, 2010). Some remain critical however and regard Google's *raison d'etre* of leaving a $600 million market as rebuilding and recuperating its ethical capital lost when it first entered the Chinese market. Meanwhile, the Chinese government insisted that Google Search's exit was just a "commercial matter" (Zhang, 2010) and as "one pawn on the sand board of the U.S. internet strategy" (Guang, 2010), Google's Chinese users were empathetic and some paid tribute at Google's headquarters in Beijing by laying flowers and candles (Osnos, 2010). One web company, name after "Goojje"—the Chinese words for "older sister", launched as the Chinese knockoff of Google, which translates in "older brother". Google later sent a cease and desist letter to Goojje to stop copying Google's logo. Goojje kept the logo unchanged (Jia, 2010).

Existing literature examines Google Search's withdrawal from China from multiple perspectives. Some attribute Google's exit to China's cyberattack and espionage (Thomas, 2010). Other studies draw different conclusions and regard Google's China venture as a successful move towards freer flow of information, because censored information is better than no information (Kim & Douai, 2012). Scholars also explicate Google's unsuccessful venture in China from the cultural and social preferences standpoint. Lu (2011) contends that as Chinese internet population demographics gradually shifted from the "have-more" middle class to those who "have-less", which are younger, less educated, lower income users residing in less developed urban areas, Chinese internet users' preferences and brand loyalties

changed from U.S companies to Chinese ones, even though U.S web companies outranked them in terms of performance and quality. Chinese web services, on the other hand, provide locally-oriented and entertainment-focused services, which outcompete their U.S counterparts (Lu, 2011).

From a business perspective, scholars argue that Google's withdrawal is a result of the interplay between a multiplicity of ethical, cultural and political conflicts and the cyberattacks were a highly-mediatized event of Google showing its discontent with Chinese censorship requirements and the frustration and disappointment in its lackluster market performance in China (Tan & Tan, p. 476). Google's initial decision to halt business in China may have been based on pragmatism or business strategy, but when it realized the business environment was too challenging to navigate, it politicized the question, turning to vocal support from the U.S. State Department (Tan & Tan, 2012, p. 477). Google later also approached the United States Trade Representative[27] (USTR) to challenge China's internet controls as trade barriers under the rules of the World Trade Organization only to find out it was a futile effort (Gao, 2011).

Nonetheless, Google's moral undertone for its decision to leave China improved the company worldwide reputation after it openly stood out against a repressive government. The confrontational approach with the Chinese government and the adherence to the company's motto of "don't be evil" decorated Google with a noble retreat, so to speak. Even though its withdrawal was the consequence of mixed factors, such as its receding market share in China, it risked a tarnished reputation with continued operation and compliance with Chinese government's censorship requests as necessary conditions to access the Chinese market.

[27] See U.S Congressional-Executive Commission on China's 2010 Hearing on *Google and Internet Control in China: A Nexus Between Human Rights and Trade*?

Googles Search's retreat from China was also a media spectacle that mobilizes and amalgamates different voices, between China's rising middle class, western democratizing forces and global capitalist class. Changchang Wu (2014) points out the emergent discursive alignment in the event of Google's withdrawal. He argues the withdrawal of Google Search held the transnational discursive bloc together in an embryonic form between tacit collusion of vested interest groups and middle-class followers, making internal Chinese political incidents into transnational events and pushed China into the global democratization wave, therefore promoting "the dreams of capitalist liberal democracy and constitutionalism in the struggle for the future of China" (Wu, 2014, p.460). Looking at the narrative and discursive articulations of Google's exit in Chinese media discourse, Zhang (2013) noticed many contradictions and misaligned interests: the Chinese government deployed a rhetoric imbued with the strong pathos of the century of humiliation China suffered at the hands of imperialists and used the Google incident to reaffirm its guardianship of the Chinese nation–state (Zhang, 2013). After all, as Vaidhyanathan (2011) and Lee (2019) remind us: although Google is seen as a search company, it is not a free-speech engine: it is an advertising company.

However, scholarly studies and mass media were missing out on one important fact: Google Search is not the only one, albeit an important one, of the wide-arraying services that Google offers. These studies obscure one of Google's businesses with the *Google ecosystem*. Even though Google Search exited China, Google as a whole did not (as explained below). Furthermore, although Google Search's exit was widely touted as a company that embodied and upheld democratic values when facing off against an authoritarian government, its entry at the beginning and continued operation was premised on the acceptance of the Chinese government's *implicit* censorship request. Google testified that the Chinese government did

not issue a concrete list of censored words, but instead it developed a technical way to test which words were censored and emulated other company's censorship patterns. As Google made clear, the company abides by three missions in expanding its services in China: satisfy the interest of users, expanding access to information, and be responsive to local conditions (Google Official Blog, 2006).

Focusing solely on the moments of withdrawal only provides a fraction of the trajectory of Google's development and vested interests in the Chinese market. Vaidhyanathan (2018) warns against studying the political economy of the fast changing social media as if they are "…static, stable, powerful, and valuable. They never rise, fall, fail, or corrupt. There is no action, only interpretation" (p. 215). Indeed, with Google's head-on conflicts with the Chinese government, the company itself is also learning and adapting to the market realities as the Chinese government demarcates its sovereignty and institutionalized state control and amalgamate authorities. Micky Lee (2019) echoes Vaidhyanathan's idea that Alphabet, as a corporation, is not a stable entity (p. 12) and its ability as a corporation to overcome the limits of capitalism is crucial for its commercial success. The withdrawal of Google Search was not the end of the company's expedition in China, instead, it marked the beginning of a set of revised strategies, renewed goals and altered marked positioning as well as the commercial and strategic reorientation around data as the linchpin of the company's development.

Back at It, Again

> "The interesting thing is that Google never left China." –Eric Schmidt, 2015
>
> "Each Alphabet business can make its own decisions on which countries to operate in" –Sergey Brin, 2015
>
> "It turns out we'll be able to serve well over 99 percent of the queries… People don't understand fully, but you're always balancing a set of values… but we also follow the rule of law in every country" –Sundar Pichai, 2019

Google's operation did not come to a complete halt after Google Search left China and relocated servers in Hong Kong in 2010. Other segments of its businesses, such as advertising, data analytics, and mobile operating system continue operating in the country. Google Map continued to seek license to operate in the Chinese market (Chao, 2010). Moreover, Google's internet content provider license was renewed by the Chinese government in 2010 for the company's redirected search result to its Hong Kong site (Drummond, 2010). By 2015, after the company restructured under Alphabet, although its flagship product Google Search is no longer present on the Chinese market, Alphabet has made diversification attempts in the Chinese market through collaborations with leading domestic market players. These business partnerships open up multiple data streams from various forms of mobile internet uses and wearable technologies in China, stepping up Alphabet's ability to access, collect, and harness data from the Chinese market.

Advertising

China is one of the largest market for Google's advertising services. In 2012, Google launched the DoubleClick Ad Exchange service in China, the platform allows users to get real-time control over their web ads and provides a centralized exchange platform to purchase ads through real time auctioning (Millward, 2012). In 2013, Google search dropped the warning message shown to Chinese users when they search for politically sensitive phrases (Halliday, 2013). By 2019, Google's ad revenue in China grew more than 60% to more than $3 billion (Zhang & Osawa, 2019). To answer to the Chinese government's ban on unlicensed virtual private network providers, Google stopped distributing ads on two VPN review websites, VPNMentor and Top10VPN (Yang, 2019). The company changed its Ads Policy to disallow promotion of VPN service in China (Cimpanu, 2019).

Data and Analytics

Researchers have found that Google Analytics is still operating in China after 2010 and continues to transmit data across the Great Firewall (Repnikova & Libert, 2015). Google Analytics not only allows website operators to analyze visitor traffic and profiles but also provides Google a wealth of knowledge about its Chinese users. In 2019, the Chinese government asks transnational internet companies to form joint venture with local companies to operate data storage and cloud computing businesses (Liu, 2019). Google is in talks with one of the country's largest internet companies, Tencent and Inspur Group to offer its cloud services in mainland China (Reuters, 2018).

Artificial Intelligence and Machine Learning

In 2018, Google launched the Quick, Draw! Mobile app in collaboration with China's most popular mobile chat program WeChat (owned by Tencent), which has more than 1 billion monthly active users. This app enables Google to collect data from mainland Chinese WeChat users to train artificial intelligence and machine learning. Google later published 50 million drawings' data through open-source forum GitHub. Meanwhile, Google invested over $60 million in China-based consumer electronics manufacturer Mobvoi and provided Android Wear Chinese voice searches (Soo, 2015). Google also opened an artificial intelligence office in Beijing. The flagship product of Google's AI lab in Beijing, TensorFlow, is free, open-source software that has received over 2 million downloads in China and caused concern for the Pentagon officials for its role in "indirectly benefit(ing) the Chinese military" (Bergen, 2019).

Mobile

In 2017, Google Translate was unblocked and the company started to advertise its offering of Google Translate for Chinese smartphones (Horwitz, 2017). Google continues to

ramp up the Google Translate app by adding instant camera translation function in 2019. Google has launched two other mobile apps for the Chinese market. In collaborating with Xiaomi, China's leading mobile and consumer electronics manufacturer, Google launched the ARCore app, an augmented reality platform on Xiaomi's App Store. Files Go is a Google app to help users manage files and free up storage on mobile devices. Its Chinese version was launched in 2018 (van Mens, 2018).

Search

Despite Google's successful ventures into the Chinese market, the internet search market remains untapped after 2010. There have been many reports about the aborted partnership between NetEase and Google to relaunch Google Play store, and the Sogou and Google partnership, in which case Google uses algorithms to conduct a search and Sogou will screen the search results to comply with government censorship rules (Soo, 2017). In 2018, a whistleblower leaked Google's Dragonfly project. With the Dragonfly project, Google is building a prototype system that would tie Chinese users' Google searches records to their personal phone numbers, to comply with the real name registration requirement of the Chinese internet regulation. In 2018, Google appeared before the U.S House Judiciary Committee for several issues, among which is its expansion into China. During the hearing, its Chief Privacy Officer Keith Enright confirms the existence of Dragonfly project. Later, Google's CEO Sundar Pichai confirmed Google's plans for building a China-focused search engine. Especially given the company's history in 2010, this project received lots of backlash from its employees and public outcry, including petition letters and resignations from its employees, as well as an open letter by 14 human rights organizations (Human Rights Watch, 2018). Google's research and development of a revamped Chinese search engine relied on the data gathered through 265.com. 265.com is a Chinese-language web directory service that

Google invested in in 2008. The portal website is used as the archetypal honeypot to gauge user search results and compile the lists of censored words (Gallagher, 2018).

Alphabet's Android

Another important arm of Alphabet's businesses is its mobile operating system Android. Google purchased Android in 2005 and founded the Open Handset Alliance (OHA) to establish market dominance in mobile communications. The OHA is a consortium of 84 companies developing open standards for mobile devices. As the world's largest mobile communication market, Chinese telecommunication operators and device manufacturers are actively involved in OHA. China Mobile, China Telecommunications, China United Network Communications, Haier Telecom, Huawei Technologies, Lenovo, Oppo, and ZTE are all part of the alliance.

The mobile operating system market in China has been dominated by Android system with an 86.4% market share according to Ministry of Industry and Informatization's *Mobile Internet White Paper* in 2013 (Xinxi Shibao, 2013). With Android's market dominance in the Chinese market, Google's decision to merge with Motorola Mobility in 2012 triggered the anti-monopoly threshold under the Ministry of Commerce's regulation. The Chinese regulators issued approval and the Google-Motorola Mobility deal went through after clearance by U.S. and European Union as well (Letzing & Mozur, 2012).

Even though Google's Android was still in operation at time of Google Search's withdrawal in 2010, the political clash did impact the popularity of Google Play stores in the Chinese market. Meanwhile, Google Play's absence created more space for local players to build on top of the Android system (Li, 2017; Arthur, 2012; O'Regan & Li, 2019). As the prototype of an open source software movement, basic Android source code, the Android Open Source Project (AOSP) is made available without certification restrictions and is open

and available to anyone to download and modify. China's mobile device and electronics manufacturer Xiaomi is a successful example of a company building their own proprietary platforms on top of the AOSP.

Google's Android Compatibility Program (ACP) requires device original equipment manufacturers (OEMs) to comply with certain hardware specifications and contract terms. The ACP is centered around the Compatibility Definition Document, which addresses the requirement of Android's software and hardware and how the operating system should function. The ACP is mutually exclusive, meaning that if an OEM joins the program to launch a certified Android device, they also commit to not launching any device with a non-compatible version of Android. A host of Chinese device manufacturers, such as Huawei, Lenovo, ZTE, are enrolled in the Google-certified Android system, and are programmed with Google Application Programming Interfaces (API) that offer access to Google services, such as Gmail, Google Maps, and the Google Play marketplace (Pon, Seppälä, & Kenney, 2014, p. 982).

As the Android system dominates the mobile operating system, Google and China's Huawei—one of the world's largest handset manufacturers have formed various partnerships. Huawei produced Google's Nexus 6P smartphone in 2015. Google and Huawei co-developed a smart speaker powered by Google Assistant and the project was later scrapped due to the U.S Commerce Department's ban on Huawei. In May 2019, Google ended the provision of Android service to Huawei after the company was put on trade blacklist, according to U.S Commerce Department Secretary Wilbur Ross, to: "prevent American technology from being used by foreign owned entities in ways that potentially undermine US national security or foreign policy interests" (Shepardson & Freifeld, 2019). While Google Play and security protection from Google Play Protect will continue to function (the version of Android service under the AOSP), Huawei smartphones will lose access to other proprietary services such as

Google Play Store, Gmail and YouTube (services under Google's Mobile Service license) (Moon, 2019). The U.S Commerce Department later scaled back this restriction by issuing a 90-day reprieve. Ironically, citing the same reasons of national security, Google later argued to be exempted from the ban because Huawei's modified version of Android (HongMeng), could be more vulnerable to hacking risks (Stacey & Politi, 2019).

As data increasingly fuel the digital platform's growth and dominance, the ability to cajole large data flows is the central concern for the digital platform company because it not only concern the protection of personal information and consumer welfare, but because having more data means more input for artificial intelligence and machine learning analysis, which is critical for the company's development (van Dijck, Nieborg, & Poell, 2019). The value of data often does not lie in the collected information itself but instead depends on the knowledge that be extracted from it (Graef, 2018). Scale plays an important role in this process of machine learning (Graef, 2018). With China's vast internet market and large internet population, it is too big a (data) market to miss for Alphabet. Alphabet's small yet diversified attempts at accessing the Chinese market through forming partnerships with domestic companies and device manufacturers may not seem commercially successful, but it gives Alphabet access to data and metadata generated by the Chinese users. Google's long-standing investment in 265.com illustrates the importance of data fueling the research and development of Alphabet's new line of products, using data collected by a Chinese internet company about Chinese users search behaviors.

China's Worst Folly

As the U.S-China tension escalates in internet governance doctrines and in terms of market competition, Alphabet, together with other U.S digital platforms champion the binary, national-centric framing to tout and legitimize their businesses and dodge anti-trust

regulation and public scrutiny in the U.S. In this context, China is no longer viewed as the market that Alphabet is vying for but it is the fierce competitor that challenges and threatens Alphabet's market dominance and U.S national security.

Alphabet, together with other U.S digital platforms have been leveraging discursive power in shaping the companies' public perceptions and to bypass regulations (Gillespie, 2010). Google, back in 2006, emphasized its lack of market dominance to excuse and justify the harms of censorship compliance with the Chinese government in its hearing before the House Committee on International Relations. Google's former VP of Global Communication and Public Policy Elliot Schrage replied to Congressman Payne: "As powerful and as important as you think our three companies are… in China, we are not the dominant players in that market…" (Google Official Blog, 2006). Implying the miniscule level of harm due to its market position, Google downplayed its influence in abetting Chinese internet control and censorship. Facing increasing antitrust investigations in the United States and European Union, Google has argued that it lacks market power because "competition is one click away", meaning users have other means to reach competitors (Edelman, 2015). Google targeted the Microsoft-Baidu partnership as a threat to its market dominance, as Eric Schmidt (2011) put it a "tremendously competitive and dynamic space that Google operate", even though Baidu hardly generated any revenue from overseas market and Google has 90% of search market (Schuetz, 2019).

News media also tend to equate corporate interests with national interests and regard Alphabet as the embodiment of U.S values. For example, in a *Foreign Policy* article titled "Google is handing the Future of the Internet to China", the author criticizes Alphabet's re-entrance to China through the Dragonfly project, calling: "the signal sent by the world's largest internet company acquiescing to Chinese dictates it once eschewed will ratify and

legitimize Beijing's repressive rules" (Nossel, 2018). The obscuring between corporate interest and national interests not only download hopes and fears in Alphabet's corporate behavior as representative of the U.S government but also pins a national identity on to the global corporate giant. However, the antagonistic relationship does not prevail when we examine the mutual interests shared between Alphabet and the Chinese market.

In other areas such as digital payment and quantum computing, Google similarly made an enemy out of China. For Google, in order to beat China, Google has to be big. Google's engineering director Hartmus Neven states: "we are indeed most worried (about) an unknown competitor out of China to beat us in the race to (such a) machine because China as a society just has the ability to steer enormous resources in the directions that are deemed strategically important" (Radu, 2020). Moreover, the "if we don't, China will…" narrative scare tactics (Constine, 2019) often were used in fencing off U.S. regulatory efforts to break up Facebook's monopolies and in justifying their expansion into various industrial sectors (Rodriguez, 2019; Yu, 2019). For example, in the 2019 Hearing before the U.S. House of Representative Committee on Financial Services, former PayPal's President, Head of Facebook's cryptocurrency venture Libra, David Marcus, states that: "I believe that if America does not lead innovation in the digital currency and payments areas, others will. If we fail to act, we could soon see a digital currency controlled by others whose values are dramatically different" (Marcus, 2019). The draft legislation *Keep Big Tech Out of Finance Act* barred online platform services with a revenue of $25 billion from entering the financial services industry (Schroeder & Shakil, 2019). When questioned with the issue of Facebook becoming too big, Zuckerberg answered:

> "it the traditional sense, we're not big because we're so big in the United States… I think that the alternative, frankly, is going to be the Chinese companies… there are plenty of other companies out that are willing and able to take the place of the work that we're doing" (Swisher, 2018).

For U.S internet companies, emerging competition from Chinese counterparts presents politically opportune and powerful discursive instruments for Alphabet to justify the market power expansion and dominance. Here companies are strategically leveraging national interests as defensive. However, such views are overly simplistic and mask the underlying political and economic formations which are not clear cut along the national lines. It especially neglects the ongoing collaborations and alliances between these companies in other emerging markets.

China's Best Friends

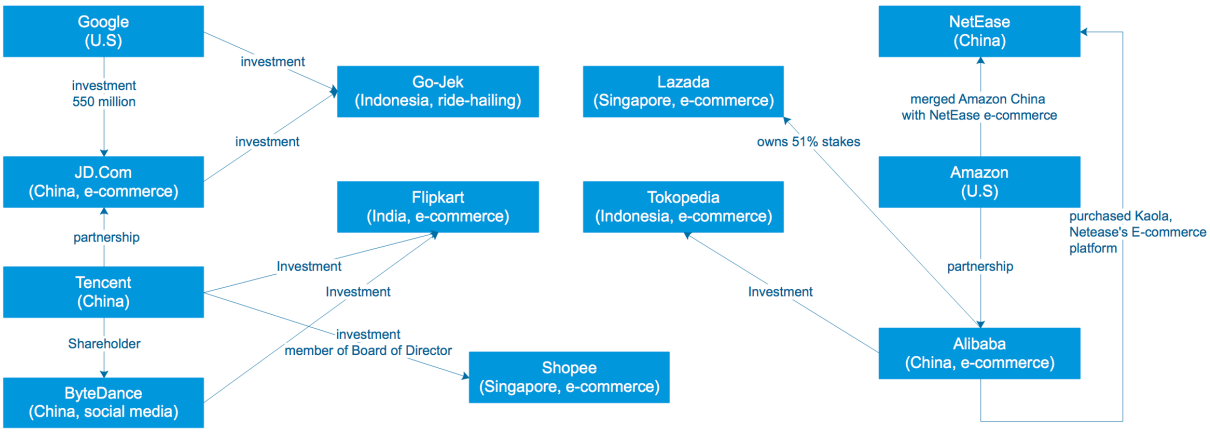
With the world's largest internet economies, U.S. and Chinese internet companies share the same goal of devouring competition and expanding their global dominance. While Chinese internet companies lag behind in depth and breadth of their global presence (Yin & Li, 2019) compared to their U.S counterparts such as Alphabet, they are increasingly taking on the role as investors to acquire, fund and buyout stakes from start-ups and established companies (Jia & Winseck, 2018; Tang, 2019). Acquisition of start-up companies has been Google's central strategy to increase market share and amass innovation, such as Google's acquisition of Keyhole (which later became Google Earth) in 2004, Android (2005), YouTube (2006) and DoubleClick (2007) (Lee M. , 2019). As Google restructured as a wholly owned subsidiary of Alphabet, there are three main investing arms nested under Alphabet: GV (formerly Google Ventures), CapitalG and Gradient Ventures. Together with Google, these three investing arms invested in 103 deals in 2017, making it the most prolific corporate investor. Matching Alphabet's shopping spree are the Chinese internet companies' rampant mergers and acquisitions. In 2017, Tencent Holdings invested in 72 deals, trailing as the close second (Rowley, 2018).

Together, U.S and Chinese units of capital co-invest and acquire many e-commerce businesses in emerging markets, especially in Southeast Asia. Google issued a multi-year project called e-Conomy SEA with Singapore sovereignty fund Temasek to explore the blooming Southeast Asia's fast-growing internet economy. The project eyes up four lucrative sectors: online travel, online media, ride hailing and e-commerce in the Southeast Asia region (Google Temasek, 2018). Under the auspices of the state's policy of "going out", Chinese investors and internet enterprises have also gradually expanded their reach overseas and some designated investment funds and venture capital fund. Alibaba established the Alibaba Capital Partners in 2008 and Tencent established its Tencent Industry Win-Win Fund in 2011 (Tang, 2019). Two axes of power between U.S-China internet companies emerge in the Southeast Asian e-commerce markets: Google-Tencent-JD.com and Amazon-Alibaba.

As Figure 11 indicates, through interlocking investments, shareholding and cross-appointment of boards of directors, Alphabet is partnering with Chinese internet companies to compete with Amazon in establishing a foothold in the Southeast Asian e-commerce market. These ties go deep to the level of infrastructural dependency. With Alibaba's Cloud computing services, Alibaba also hosts Tokopedia and Lazada services on the Alibaba Cloud. One of the board of directors for Tencent is cross-appointed to the board of the Singaporean e-commerce company Shopee. These strategic investments not only come with a goal to reap financial and economic returns, they also help feed the platform companies' thirst for data. As Graef (2018) notes digital businesses compete not only in the product markets for the specific services offered to users and advertisers but also in a broader market for data that can be deployed for improving the quality and relevance of these services. Data sit as the linchpin of competition among the growth and development of platform companies. This further brings home van Dijck's (2013) argument that: "competition and collaboration are two, perhaps

paradoxical, defining forces in the ecosystem of connective media" (2013, p. 43). Through investing in Chinese platform companies, Alphabet can utilize the experience and cultural proximity to the Southeast Asian markets to win over the lucrative emerging market and also to compete against its domestic rival Amazon.

Figure 11 Interlocking Relationship between U.S and Chinese Internet Companies in SE Asia



Moving Forward

Within the larger process of China's reinsertion into the world market system, the extraterritorial internet constitutes an emergent geopolitical flash point (Schiller, 2011). Throughout the last decade, the U.S.-China cyber relations experienced many ups and downs as China's reintegration into world market proceeds. The U.S-China Internet Forum was established in 2007 by Microsoft and Internet Society of China, an industry self-regulation organization. In 2015, U.S.-China signed the Cyber Agreement to halt hacking for commercial gain (Segal, 2017). In the joint press conference by President Obama and President Xi Jinping in 2015, Xi remarked: "the Cold War has long ended… China and the U.S. should make joint efforts to build a new model of major-country relations between two countries, and realize non-conflict, non-confrontation, mutual respect, and cooperation" (Office of the Press Secretary, 2015).

U.S.-China trade disputes continue to unfold and intensify in the tech sector. Since 2018, the U.S. has launched investigations and banned Chinese telecommunication device manufacturers ZTE and Huawei, for the reasons that Chinese tech companies endanger the national security and economic security of the United States. During the Multilateral Action on Sensitive Technologies Conference, the Assistant Secretary of the United States Bureau of International Security and Nonproliferation, Christopher Ashely Ford raises "the Huawei Challenge", calling Huawei, as well as many other internet companies in China the government's propaganda machine, and the "de facto tools of the Chinese Communist Party", that amount to serious national security threats and foreign policy problems (Ford, 2019). The rise of the "Huawei challenge" is the most recent episode of the U.S.-China contestations over critical control of communication resources.

With the *Foreign Investment Risk Review Modernization Act* (U.S. Department of the Treasury, 2018), the Committee on Foreign Investment in the U.S (CFIUS) rises as a powerful arbiter in deciding the fate of Chinese investors in U.S tech industry. Under the concern for cybersecurity and integrity of personal data, CFIUS has rejected Broadcom's acquisition of Qualcomm, forced Chinese investors to divest from PatientsLikeMe, a healthcare startup, HealthTell, and Grindr, the LGBTQ dating app. It also rejected Ant Financial's acquisition of MoneyGram; Canyon Bridge Capital Partners' acquisition of Lattice Semiconductor; and China Mobile's international telephone services application from the Federal Communications Committee (FCC). Globalizing Chinese companies are experiencing a steep learning curve with the U.S regulators as well. The Federal Trade Commission has levied the largest ever penalties for TikTok, a popular China-based social media mobile apps for $5.7 million, in violating privacy for young users in the U.S. China, on the other hand, imposes restriction on foreign entry in internet content industries (see Table 16). The *Cybersecurity Law*

and the data localization regulation erect barriers to ground foreign companies' data infrastructure and storage in China. Apple and Evernote and LinkedIn have all partnered with Chinese cloud computing services to store Chinese user data in China.

Some level criticism at how U.S. internet companies compromise content and corporate structure in order to enter the Chinese market, and how U.S. capital markets, investment banks and venture capitals are challenging U.S national interests of a free and open internet (Kokas, 2018a, 2018b). The conflict between state and capital is going to intensify as China rises as a formidable player, a vast market, and as avid innovator in the information and communication technology industry. As Google's Director of U.S. Public Policy, Alan Davidson remarks in the Congressional hearing on *Google and Internet Control in China: A Nexus Between Human Rights and Trade*, internet censorship is both a human rights issue and an economic one. Alphabet is a perfect example of how foreign companies are caught up and also ride on the shifting geopolitics between U.S and China to advance their own interests and market dominance. As Shawn Powers and Michael Jablonski (2010) argue, the real cyber war may not be over offensive capabilities or cybersecurity but instead over legitimating existing institutions and norms governing internet industries in order to assure their continued market dominance and profitability (p. 100). Mejias and Couldry (2019) and Chen (2019) note that a war for the social resources of the world has already being waged between the social quantification sectors of China and the U.S, employing a whole arsenal of quantification weapons such as artificial intelligence, facial recognition, and new e-commerce models, to cyberwarfare, chip manufacturing, and multinational agreements regulating intellectual property. As the internet offered the infrastructure for transnational capital, both home-based and foreign, state and corporations are bound to involved in dialectical interplays to advance their own distinct interests.

Conclusion

Reconstructing Alphabet's near two-decade operating history in China (2000-2019), this chapter unpacks the entanglement and contestations between the political and economic interests against the larger context of the Chinese and U.S internet governance doctrines. This chapter shows Alphabet's shifting role in the Chinese market: it was initially an investor in Chinese internet company Baidu with an aim to reap financial return; with the launch of Google Search in China, Google formally became an active market participant in the Chinese search markets and formulated partnerships with domestic companies to expand and compete with Baidu; after the U.S-China tensions over internet governance reached an apex in 2010, the company relocated its servers to Hong Kong while other business segments remained in operations in mobile internet, artificial intelligence and data analytics on the Chinese market. The evolving role of Alphabet in China is not only shaped by the power struggle at the national level between China and U.S but is also at behest of capital and corporate interests in expanding market power and reach worldwide.

This chapter also offers a rebuttal to the view of Google as a proxy of U.S. national interests. Such a view largely ignores the converging interests between Google and leading internet companies in China and their shared worldwide pursuit to turn the internet elsewhere into an instrument for capital accumulation. As Yeo (2016) summarizes, the understanding of Google in China exclusively as a power struggle between two nation states to control a new strategic information and communication infrastructure is inadequate to capture the ambiguous changing dynamics of U.S-led transnationalizing capitalism. A deeper dive into the intertwined political economy between Alphabet and the Chinese internet resonates with Winseck's (2019) critique on quickly pinning a national identity on corporate actors and viewing them as "tools of empire". Alphabet's attempts at returning to the Chinese

market through the Dragonfly project and continued operation and collaboration in fields of data, mobile internet and artificial intelligence show market expansion overcomes and overrides the political and ideological standoff among the two nations' long-held views and values towards internet governance (freedom to connect vs. internet sovereignty).

The highly dynamic relationship between Alphabet and China showcases how state and capital in some instances work together as well as against each other over the course of Alphabet's operating trajectories in China. Such dialectic dynamism draws closer cooperation and collaborations between leading Chinese and U.S internet companies as partners to cannibalize emerging markets for e-commerce and data in Southeast Asia as the vantage point for the next poles of growth. It also demonstrates the rocky globalization process as China opens up its highly national internet demarcated by stringent foreign investment rules, control, and licensing rules, to foreign competitors.

In balancing economic growth while maintain centralized control, the Chinese state retains substantial power in regulating the licensing, content provision, access to market and data storage and processing in Alphabet's entry into China. To harness the commercial value of the emerging Chinese internet as a market for services and product development as well as for data harvesting, a total withdrawal of Alphabet is hardly possible. As Alphabet and Chinese internet companies are driven by shareholder's values, they form collaborations to piggyback on each other's strongholds to expand market dominance in emerging markets. Alphabet's history in China shed lights on how geopolitics of the internet shape the company's course of development. In particular, as the ongoing U.S-China trade disputes increasingly put a spotlight on the high technology and ICT sectors, the relationship between state and companies is not always straightforward but rather negotiated given their own political and commercial interests.

Chapter 6: Towards a Tripartite Framework

The media and communication reform in China evolves around two central concerns: how to secure political control while maintaining economic and commercial growth? The privatization, liberalization, and marketization of media and communications sectors in China have been carefully monitored and supervised by an adaptive Chinese state both in terms of regulatory adjustment and in leveraging foreign capital to foster growth. In this context, the internet emerged and developed in China with the dual-advancement of a vibrant private sector and a flexible and controlling state, which opens up the sector to foreign capital and competitors while retaining control through licensing and other regulatory mechanisms. In other words, the internet in China benefits from the country's ongoing economic opening up and *globalization* undertakings and at the same time, constitutes a *globalizing* force.

Through the analysis of how the Chinese internet develops along a controlled, commercial and capitalized path, this thesis distills three discernable, interconnected, yet analytically-distinct forces in such processes: state, capital and internet companies. With each force having its own heterogeneous political and economic priorities and imperatives, the interactions between these actors are highly fluid and dynamic.

The Chinese state, on the one hand, represents the national interests to advance national development, hasten the country's technological capacities, and to maintain the Chinese Communist Party's rule. For state actors, the goal of securing national control over its internet development as technology, market, and ideological battleground is held paramount. This means exercising sovereignty over the internet to protect a strong national market, to have control over key technologies and ideologies, and project its power outward through exporting the Chinese model and norms of internet governance.

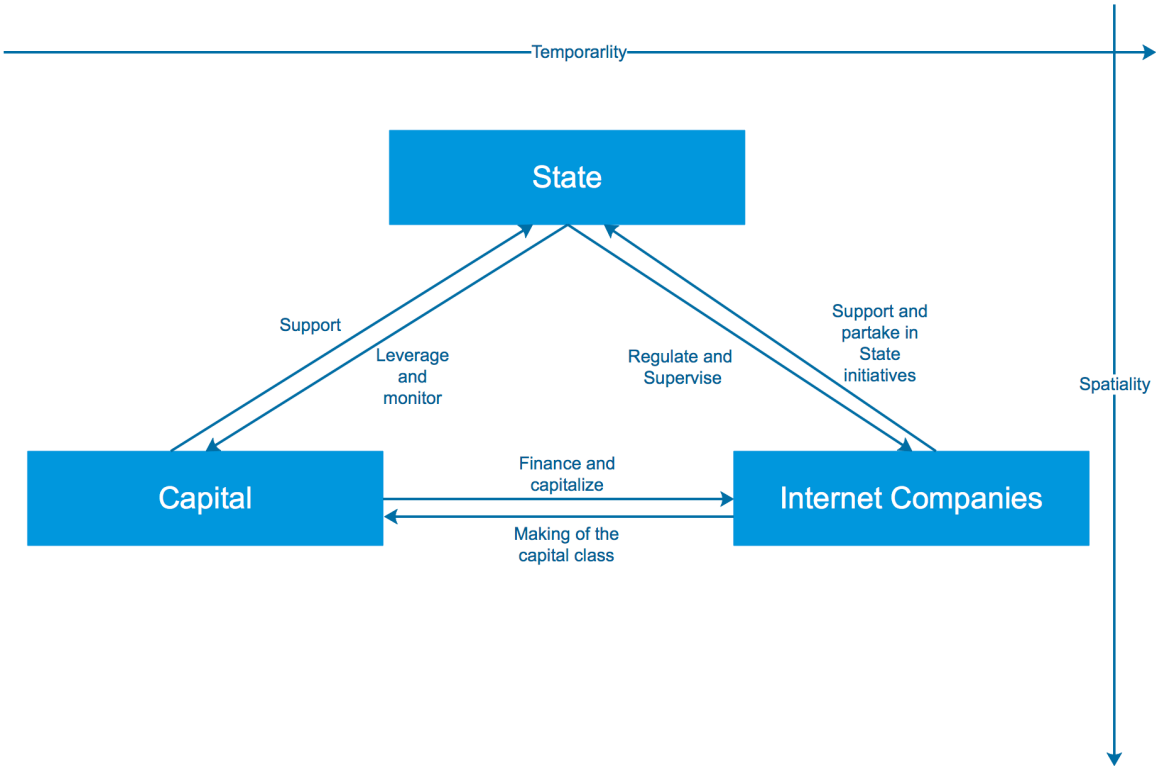
On the other hand, with China's fast growth in internet technology and online population, global capital quickly turns to capture this market of growth to reap financial returns. They provide critical financial supports that both internet companies and Chinese government needed to jump start and expedite the growth of commercial internet in China. Lastly, private internet companies in China strive to balance state-imposed regulations while answering to shareholders' demand for profit maximization. Together, these three forces determine the ways Chinese internet companies finance their growth and expansion over time, and set foreign internet companies' patterns of entry and terms of participation in the Chinese market, and give rise to the close state-business nexus of China's cyber power.

The three-way relationship between state, capital and internet companies is depicted in Figure 12. Added to the three-way interaction are the shifting temporal and spatial scales. Even though the Chinese internet has been embedded in the global network of finance and corporate elites since its initial take off, its relationship with capital varies over time. The most notable trend is the accentuation of financialization, which connotes the manners in which global financial system has become increasingly dominant across a range of socioeconomic spheres (Fitzgerald, 2012, p. 13). As financialized entities, Chinese internet companies increasingly turn to (venture capital) investment, and mergers and acquisitions to meet shareholder's demands. Together with Western internet companies (such as Alphabet examined in Chapter 5), they make up units of transnational capital that gobbles up competition in emerging market.

The globalization of the Chinese internet coalesces different institutional contexts, and spans across different national settings as publicly traded Chinese internet companies list on overseas stock markets and set up headquarters in offshore jurisdictions, which provide the companies more preferable legal frameworks. Therefore, the three-way interaction between

state, capital and internet companies in the globalization of Chinese internet must be examined in conjunction with the historically and geographically-specific contexts as they are highly nebulous, flexible and fluid.

Figure 12 Three-way Framework for China's Internet Globalization



State

Emerging from the U.S with its liberal, egalitarian and globalist appeal, the internet started to garner popularity in China around the time the country accelerated its economic opening up as it joined the World Trade Organization in early 2000s. Initially, the internet was heralded for forces of democratization and liberalization in the early social imaginaries and popular press discourse (Wu & Yun, 2018). However, over the past two decades, the Chinese government has shown great adaptability at improvising its technical and regulatory toolkits to not only ward off challenges to Party state legitimacy but also actively shape the internet, both in domestic regulation and in global governance arenas, according to its own

vision of cyber sovereignty. Meanwhile, the great *flexibility* and *adaptability* of the Chinese government also manifested through the successful buildup of a commercially viable internet industry in China. Not only is China among the world's largest markets, producers, exporters of ICT devices and equipment, but a slew of Chinese internet companies have scored commercial success outside the domestic market. This politically-contained, and economically vibrant formation of Chinese internet mandates us to take the state's role and adaptability in both political and economic sphere seriously.

The Chinese state remains as a powerful and insurmountable institutional force that shapes the contours of Chinese internet industry's globalization. It develops a framework that is tight on the control over content and licensing (Lee, 2003, pp. 11-12) yet lax on the side of market regulation, on issues such as the Variable Interests Entity ownership structure and admittance of foreign investment. The state's role can be summarized as a collaborator and facilitator for capital investors, which stands in sharp contrast with its strict attitudes and actions of internet control: on one hand, it encourages commercial growth and deployment of domestic internet companies through sets of national policies, investment rules and reform of domestic capital markets to attract, funnel, and invigorate the velocity and vitality of capital flows; on the other hand, it acts to secure its control through imposing strict liability regime, licensing rules, and measures such as data localization.

The rise of private homegrown internet companies provides new additions to the previously state-owned media group that was encouraged to go global. As shown in Chapter Three, this new league of "China's internet champions" are streamlined with the policy priorities of nation's global developmental projects and are set to represent China's soft power and tech power.

Historically speaking, the globalization of the Chinese internet industry largely follows the path of development of the country's ongoing media globalization. The Chinese state leverages capital in a practical way to fortify commercial media development. China's media internationalization started long before it was officially legitimized and written into law (Lin, 2007). Despite strict rules imposed on media ownership and co-production, global media companies struck a handful of deals with local media or local authorities and quietly got around the regulations (Lin, 2007, p. 106). Similarly, as the analysis of Alphabet's entry into China shows, the Chinese state retains substantial power in regulating the licensing, content provision and access to market for foreign internet companies.

Even though the state still matters, it is not omnipotent nor omnipresent. Much like the earlier bureaucratic turf war that provided short openings to early commercial deployment of the internet infrastructure, policy and regulatory vacuums and ambiguities created openings and windows of opportunities for domestic internet companies. As demonstrated in internet companies' initial public offering prospectuses, lags and shortcomings in measures to implement state-imposed regulations create loopholes for internet companies to bypass taxation, regulation and also pose risk for market valuation.

The globalization process of the Chinese internet highlights the shifting role of state from being a total intervener towards a collaborator to provide stability and favourable conditions for capital investors (Leander, 2001; Flew, Iosifidis, & Steemers, 2016). In so doing, the Chinese state also engages itself on global levels by being an advocate for a multilateral and global internet order (Hong & Goodnight, 2019), as epitomized by state policies such as the going out policy and the One Belt One Road Initiative to bring about an inclusive globalization. These policies and initiatives align with the geopolitical interests of the Chinese state to establish and expand its digital power and to explore and resuscitate the slowing

domestic economic development by assisting domestic internet companies to compete and succeed overseas.

Capital

The internet offers a new infrastructure for the transnational capital accumulation process, both home-based and/or foreign capital (Schiller, 2011). The relationship between capital and the Chinese internet is two-fold: one the one hand, transnational capital has transformed the Chinese internet into a platform for accumulation while on the other hand, the financialization of Chinese internet companies also gives rise to a newly-constituted power bloc, composed of capital units owned and operated by Chinese internet giants to expand overseas.

As the very foray into which capital seeks its expansion and accumulates its growth (Schiller, 2011; Foster & McChesney, 2011), this dissertation shows that Chinese internet companies have been closely enwrapped and interlocked in the global finance networks and evolved with the ebbs and flows of global capital market dynamics, from the dot-com bubbles, to 2008 economic crisis to the ongoing boom and bust cycle. Chinese internet companies rely on foreign investment banks to package, promote, and underwrite their stock offerings. They also draw on global financial elites and management resources to serve on companies' boards of directors, offering crucial insights and expertise for company operations and financing.

As the social imagination of the Chinese internet gravitates towards a neoliberal ethos, promoted both by the Chinese government's "mass entrepreneurship" policy (Keane & Chen, 2019), widely circulated tales of financial and techno heroes (Wu & Yun, 2018), and saturation of consumerism, branded in highly gendered and nationalistic flavors (Meng & Huang, 2017), increasing numbers of internet companies seek stock listings. Access to capital markets, on the other hand, is necessitated by Chinese internet companies' fast market expansion through

merger and acquisition strategies both in domestic and overseas markets. To this end, the U.S. structural power over financial markets (such as stock markets, investment banks and venture capital funds) still reign over Chinese internet companies (Tusikov, 2019). Moreover, with a fast growing internet population, especially mobile internet, Chinese internet companies are an attractive site and pivot for transnational capital accumulation. This is clearly demonstrated by the high market capitalization of Chinese internet companies, financialized characteristics of the company's ownership structure, and the overlapping of institutional investors in both Chinese and U.S. giant internet and tech companies as depicted by Table 19.

Table 19 Institutional Investors in Chinese vs. U.S Internet and Tech Companies

Institutional Investor	**Investment in Chinese Internet Companies**	**Investment in GAFAM**
SoftBank	Alibaba	
Orbis Investment	NetEase, Sohu	
Baillie Gifford	Baidu, Tencent, Alibaba	Facebook, Microsoft, Alphabet, Amazon
Price T. Rowe Price	Baidu, Sina	Facebook, Microsoft, Alphabet, Amazon
Schroder Investment Management	Sina	Facebook, Microsoft
BlackRock	Sina, Alibaba, Tencent, Baidu	Facebook, Microsoft, Alphabet, Apple, Amazon
Macquarie Group	Sohu	Facebook
Orbis Allan Gray	Sohu	
Renaissance Technology	Sohu	Facebook,
JPMorgan Chase	Tencent	Facebook, Microsoft, Alphabet,
Hillhouse Capital	iQiyi, Alibaba, JD, Sohu	Facebook, Apple, Amazon
Sequoia Funds	Pinduoduo, JD, Sina, iQiyi, Alibaba	Alphabet, Facebook, Amazon
Lazard Asset Management	Baidu	Facebook, Microsoft, Alphabet, Amazon, Apple
Vanguard Group	Alibaba, Baidu	Apple, Microsoft, Alphabet, Amazon, Facebook
State Street	Baidu	Apple, Microsoft, Amazon, Alphabet

Source: Baillie Gifford, BlackRock, Hillhouse Capital, Sequoia, CNN, NASDAQ

As capital accumulation takes place on an increasingly transnational level, it knows no national identities. It is this accumulative motive that drives Chinese internet companies to work with dominant U.S internet companies to form partnerships to harvest growth in

emerging internet markets, as Chapter Five demonstrates. The capitalistic characteristics of Chinese internet companies position them as both collaborators and competitors with U.S counterparts, therefore complicating the national identities of these companies, as they can no longer pinpoint a clear association between national origins and corporate behaviors (Winseck, 2017). Not only are Chinese and U.S internet companies owned by similar group of institutional investors, as Lee (2019) notes, these institutional investors also own each other. For example, T. Rowe Price is owned by Vanguard, BlackRock and State Street, and Blackrock is owned by Vanguard and State Street. This complex and deeply interlocking relationship not only manifests the rise of the finance hegemony, which institutionalizes its power through ownership, reinforcement of alliance and fusion with the managing elites (Duménil & Lévy, 2004) but also showcases the deep integration and interconnectedness between Chinese and U.S internet companies and global financial networks.

As digital capitalism integrates information and communication into the "beating pulse of capitalism" (Schiller, 2014), Chinese internet companies are not only seekers and receivers of foreign capital investment. As they generate profit and positive cash flow, Chinese internet companies increasingly deploy investment as a key strategy for revenue growth. This further deepens the financialization of the digital economy in China. The leading companies, such as Baidu, Alibaba and Tencent, NetEase, and Sina all set up their venture capital units to invest in overseas start-up ventures. Chinese internet companies have proactively shaped the global internet industry through investment (Tang, 2019). From the initial recipient of foreign investment, as Chinese internet companies grow in scope and scale, they have also become exporters of capital—and from a financial point of view, merger and acquisition is a less costly option for China to establish market dominance in a short span of time.

Internet Companies

The internet industry in China distinguishes itself from other media and communications sectors because instead of state-owned enterprises, a handful of domestic private companies played a leading role in the development of the commercial internet. The largest and commercially successful internet companies in China are neither owned nor operated by the state. As a result, the study of internet companies in China offers unique vantage points to dissect the digital configuration and institutionalization of state-capital dynamics in the globalization of the Chinese internet.

Looking at the political economy of private Chinese internet companies, this dissertation shows that the domestic regulations, censorships, and exertion of various forms of state control do not deter the commercial prospectuses and market valuations of Chinese internet companies. For example, Chapter Three examines key questions of who owns, finances, and operates the leading internet companies in China and reveals the emerging power structure/bloc in charting the course of commercial internet development in China. It reveals that the capitalization process of the Chinese internet industry is in the hands of global financial and media giants. Chapter Four looks at how companies account for and prospect regulatory risks during stock listing, and it shows that even with the ambiguous and uncertain domestic regulatory environment, the capital market still recognizes and realizes values and prospects in Chinese internet companies.

In addition, the analysis of the political economy of publicly traded Chinese internet companies overtime showcases that Chinese internet companies are agentic actors in shaping where and how globalization takes place. First and foremost, as publicly traded companies, Chinese internet companies operate in a market and are driven by profit-seeking motives. They seek to establish market power and dominance not only through market competition,

mergers and acquisitions, but also through partaking in the state's policy making process. In order to survive the Chinese market, internet companies must obey the bottom line and fulfill the necessary conditions to abide by the state's content censorship requests and structure their operations strictly according to the state's onerous licensing requirements.

On the other hand, Chinese internet companies also contribute to the state policy agenda, especially seen in the proposition of the "Internet plus" plan, Mass Entrepreneurship, and Belt and Road Initiatives, as discussed in Chapter Four. These policies, first proposed by leading internet companies such as Tencent and Alibaba, were later appropriated by the state and entered official policy discourse. The Chinese government's pursuit of soft and hard power worldwide collides with the spatial-fix of Chinese internet's objectives. The spatial-fix logic is the innate dynamics and expansionist tendencies of capital accumulation to resolve its inner crisis tendencies (Harvey, 2001). The symbiotic relationship is clearly demonstrated in domestic internet companies' CEOs sporting high-level state visits and partaking in the country's internet diplomacy, such as the launch of Baidu's Brazilian search engine Busca during Xi Jinping's state visit to Brazil, and Malaysian Prime Minister Mahathir's visit to Alibaba headquarters during his official visit to China (CGTN, 2018).

Meanwhile, the interests of Chinese internet companies do not always align with the Party state's. Legal vacuums and regulatory loopholes in many cases, provide windows of opportunity for private internet companies to reroute investment and bypass national restrictions on inward and outward foreign direct investment. Secondly, as China is yet to fully embrace capitalism, the state clamped down on private Chinese internet companies' full-blown commercial corporate behaviors, which flood the web with popular content and celebrity gossip. Despite strict state control, domestic Chinese internet companies manage to raise foreign capital cross-border and shop for preferable stock listing destinations. For

example, as detailed in Chapter Four, Sina and Sohu's audacious move to accept foreign investment and list their stocks when the state regulator banned foreign investment in internet content provider businesses.

Moreover, the capitalist characteristics of Chinese internet companies exhibit the increasingly transnational nature of capitalist accumulation process. They formed joint ventures and collaborations with U.S internet companies, albeit the disagreements on internet regulation norms held at the national level. Viewed in this light, as Dan Schiller (2011) points out, while China and the United States will clash over various aspects of the volatile political economy of networks, Chinese and U.S. capital will converge on a shared policy goal to enable transborder data flows among and within giant corporations (p. 102). An examination of the political economy of Chinese internet companies highlights the dynamic state-capital interactions in the globalization of Chinese internet companies, the close ties and embeddedness forged with global finance and elite networks, alliances and contestations with existing global market player Alphabet, and evolving relationships with the Chinese government. In this regard, internet companies in China epitomize the formation of a globalizing force and units of capital seeking geographical expansion and restructuring to resolve its accumulation crisis as domestic internet market consolidates. Some further suggest that Chinese internet elites are now members of the global capitalist class (Yin & Li, 2019).

In sum, internet companies not only shoulder state policy objectives and their execution, they also participate and shape national policy agendas. Chinese internet companies need to balance their own goals of profit maximization and market power consolidation with the state's imposed objectives to obtain control and foster commercial development and deployment of the internet in the overall national economy. Therefore, they are both "insiders and outsiders": they are outsiders because they benefit by identifying with a

western liberal ethos of individual success, but at the same time they are insiders because they are required to espouse a collectivist national agenda that calls for mass innovation, in which the revitalisation of the nation is first and foremost (Keane & Chen, 2019, p. 744).

Major Findings of This Dissertation

As Curtin (2015) writes, state-capital dynamics in China's media development are not simply (inter)national, they are truly global, multidimensional, intersecting, conflictual and systemic. They demand attention to national institutions, international relations, and thus require the investigation of agents, forces, and locations beneath and between the nation-state. This dissertation focuses on the controlled, commercial development of the internet in China that organized across historical contexts and geographic regions. It shows that the Chinese internet started off harnessing the global flow of finance and management human capital. It is also globalizing at the behest of the capitalized and financialized Chinese internet companies.

This dissertation challenges the top-down power relationship between Chinese state and internet businesses and argues that the Chinese internet companies, although not fully autonomous from the state, operate according to their own capitalistic logics that on occasion, run counter to state objectives and China's national interests. As an agentic factor, private Chinese internet companies shape the terms and contours of how globalization of the Chinese internet proceeds. The Chinese political context and the integration of foreign capital also shape companies' development trajectories, strategies and organization structures.

This dissertation foregrounds the censorship and control elements of the Chinese internet in order to bring to the fore the interplay between the state-capital-internet companies to examine the globalization of the Chinese internet. The tripartite framework addresses different forces at play with their own priorities and preferences. This framework

takes into consideration many of the moving parts. Each actor is in flux, which means the relationship is not predetermined but highly dynamic and fluid, and depends on the historical context. Led by active domestic private companies, a vested state, and financed by volatile transnational capital, the Chinese internet is both global and globalizing. It is global under the auspices of state policy and tolerance of foreign capital investment and an active private commercial sector that is rooted in and routed through transnational networks of global finance and human capital. It is globalizing as the capitalistic Chinese internet companies and the Chinese state share the goal to expand and project economic and political power overseas. The alignment of interests between actors among these three forces create cooperation, conflicts and contestations that transcend a state-centric or company-centric view of the Chinese internet.

Bibliography

Abbate, J. (1999). *Inventing the Internet.* Cambridge: MIT Press.

Abbate, J. (2017). What and Where is the Internet? (Re)defining Internet Histories. *Internet Histories: Digital Technology, Culture and Society, 1*(1-2), 8-14.

Ahmed, S., & Weber, S. (2018). China's Long Game in Techno-nationalism. *First Monday, 22*(5).

Alibaba. (2019). 2019 Annual Report.

Alibaba Group. (n.d.). *Corporat Governance*. Retrieved from Alibaba Group: https://www.alibabagroup.com/en/ir/governance_9

Almiron, N. (2013). Board Compensations in the Media Industry: Global Elite Networks and Financialization. *The Political Economy of Communication, 1*(2), 28-43.

Arsenault, A. (2017). The Datafication of Media: Big Data and the Media Industries. *International Journal of Media & Cultural Politcs, 13*(1&2), 7-24.

Arsenault, A., & Castells, M. (2008). The Structure and Dynamics of Global Multi-Media Business Networks. *International Journal of Communication*, 707-748.

Arsène, S. (2012). The Impact of China on Global Internet Governance in an Era of Privatized Control. *Chinese Internet Research Conference.* Los Angeles.

Arsène, S. (2016). Global Internet Governance in Chinese Academic Literature: Rebalancing a Hegemonic World Order? *China Perspectives, 2*, 25-35.

Arthur, C. (2012). *Digital Wars: Apple, Google, Microsoft and the Battle For the Internet.* Kogan Page.

Arvidsson, A. (2016). Facebook and Finance: On the Social Logic of the Derivative. *Theory, Culture & Society, 33*(6), 3-23.

Arvidsson, A., & Colleoni, E. (2012). Value in Informational Capitalism on the Internet. *The Information Society, 28*(3), 135-150.

Associated Press. (2005, August 6). *Baidu Shares More than Quadruple in Debut*. Retrieved from China Daily: http://www.chinadaily.com.cn/english/doc/2005-08/06/content_466861.htm

Austin, G. (2014). *Cyber Policy in China.* Cambridge & Malden: Polity Press.

Babe, R. (1995). *Communication and the Transformation of Economics.* Thousand Oaks: Sage.

Baidu. (2017). *Robin Li*. Retrieved December 1, 2017, from Baidu Board of Directors: http://ir.baidu.com/phoenix.zhtml?c=188488&p=irol-govBoardBio&ID=143589

Balding, C. (2018, April 11). *China is Nationalizing Its Tech Sector*. Retrieved from Bloomberg: https://www.bloomberg.com/opinion/articles/2018-04-12/china-is-nationalizing-its-tech-sector

Barboza, D. (2006, September 17). *The Rise of Baidu*. Retrieved from The New York Times: https://www.nytimes.com/2006/09/17/business/yourmoney/17baidu.html

Barboza, D. (2007, Janurary 5). *Google Acquires Stake in Chinese Web Site*. Retrieved from The New York Times: https://www.nytimes.com/2007/01/05/technology/06googlecnd.html

Barboza, D. (2009, March 30). *Google Offers Links to Free Music Downloads in China*. Retrieved from The New York Times: https://www.nytimes.com/2009/03/31/technology/companies/31music.html

Barboza, D. (2014, September 6). *The Jack Ma Way*. Retrieved from New York Times: https://www.nytimes.com/2014/09/07/business/international/at-alibaba-the-founder-is-squarely-in-charge.html

Barbrook, R., & Cameron, A. (1996). The Californian Ideology. *Science as Culture, 6*(1), 44-72.

Bartov, E., Mohanram, P., & Seethamraju, C. (2002). Valuation of Internet Stocks: An IPO Perspective. *Journal of Accounting Research, 40*(2), 321-346.

Barwise, P., & Watkins, L. (2018). The Evolution of Digital Dominance: How and Why We Got to GAFA. In M. Moore, & T. Damian (Eds.), *Digital dominance: the power of Google, Amazon, Facebook, and Apple* (pp. 21-49). Oxford: Oxford University Press.

Batjargal, B. (2007). Internet Entreprenuership: Social Capital, Human Capital, and Performance of Internet Ventures in China. *Research Policy, 36*, 605-618.

BBC. (2019, August 26). *谷歌推特脸书封号背后：中共官媒"讲好中国故事"的不菲代价*. Retrieved from BBC Chinese: https://www.bbc.com/zhongwen/simp/world-49429531

Benney, J. (2014). The Aesthetics of Chinese Microblogging: State and Market Control of Weibo. *Asiascape: Digital Asia, 1*(3), 169-200.

Bergen, M. (2019, March 21). *Google Requests Meeting With U.S. General Amid China AI Debate*. Retrieved from Bloomberg: https://www.bloomberg.com/news/articles/2019-03-21/google-requests-meeting-with-u-s-general-amid-china-ai-debate

Binder, M. (2018, August 9). *Google Never Really Left China: A Look at the Chinese Website Google's been Quietly Running*. Retrieved from Mashable: https://mashable.com/article/google-265-com-china/

Bolsover, G., & Howard, P. (2018). Chinese Computational Propaganda: Automation, Algorithms and the Manipulation of Information about Chinese Politics on Twitter and Weibo. *Information, Communication & Society*.

Boyd-Barrett, O. (Ed.). (2016). *Communications Media, Globalization and Empire.* Bloomington: Indiana University Press.

Branigan, T. (2009, November 16). *Barack Obama Criticises Internet Censorship At Meeting in China*. Retrieved from The Guardian: https://www.theguardian.com/world/2009/nov/16/barack-obama-criticises-internet-censorship-china

Buckley, C., & Hornby, L. (2010, January 14). *China Defends Censorship after Google Threat*. Retrieved from Reuters: https://www.reuters.com/article/us-china-usa-google/china-defends-censorship-after-google-threat-idUSTRE60C1TR20100114?type=technologyNews

Budnitsky, S., & Jia, L. (2018). Branding Internet Sovereignty: Digital Media and the Chinese-Russian Cyberalliance. *European Journal of Cultural Studies, 21*(5), 594-613.

CACS. (n.d.). *Report on China Internet Development 2017.*

Casanova, L., Cornelius, P. K., & Dutta, S. (2018). *Financing Entrepreneurship and Innovation in Emerging Markets.* Academic Press.

Casey, R. (2014, July 11). *Casey to SEC: Protect U.S. Investors in Chinese IPOs; Transactions Could Leave U.S. Investors with Few Safeguards If They Invest in Shell Corporations*. Retrieved December 5, 2017, from Bob Casey: https://www.casey.senate.gov/newsroom/releases/casey-to-sec-protect-us-investors-in-chinese-ipos-transactions-could-leave-us-investors-with-few-safeguards-if-they-invest-in-shell-corporations

CGTN. (2018, August 20). *Xi Jinping Vows to Promote China-Malaysia Cooperation With Belt and Road*. Retrieved from China Global Television Network: https://news.cgtn.com/news/3d3d414d34496a4e79457a6333566d54/share_p.html

CGTN. (2019, January 29). *BT Becomes First Foreign Telecoms Firm to Secure Chinese License*. Retrieved from China Daily: http://www.chinadaily.com.cn/a/201901/29/WS5c4fbdfca3106c65c34e70b2.html

Chan, J. M. (1994). Media Internationalization in China: Processes and Tensions. *Journal of Communication, 44*(3), 70-88.

Chao, L. (2010, June 10). *Google Seeks Beijing License*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB10001424052748703627704575298463739407860

Chao, L. (2010, January 19). *Google's China Music Partner Faces Unsure Fate*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB10001424052748704541004575011683006036028

Chao, L. (2010, January 19). *What Google Exit May Mean for Music Service*. Retrieved from The Wall Street Journal: https://blogs.wsj.com/chinarealtime/2010/01/19/what-google-exit-may-mean-for-music-service/

Chao, L. (2011, December 21). *Baidu No Longer 'Notorious'*. Retrieved from The Wall Street Journal: https://blogs.wsj.com/chinarealtime/2011/12/21/baidu-no-longer-notorious/

Chen, C. (2019, Janurary 16). *Tencent Plugs Holes, and Boosts Profits, with 163 New Investments*. Retrieved from South China Morning Post: https://www.scmp.com/tech/big-tech/article/2182193/tencent-plugs-holes-and-boosts-profits-163-new-investments

Chen, C., & Deng, I. (2018, May 7). *Has Tencent Lost Its Creative Mojo? Essay Sparks Heated Online Debate in China*. Retrieved from South China Morning Post: https://www.scmp.com/tech/tech-leaders-and-founders/article/2144973/has-tencent-lost-its-creative-mojo-essay-sparks

Chen, J. Y. (2018). China's Platform Economies: The Boss's Old and New Clothes. *Made in China: A Quarterly on Chinese Labour, Civil Society, and Rights*(3), 54-57.

Chen, J. Y. (2020). The Mirage and Politics of Particiaption in China's Platform Economy. *Javnost - The Public, 27*(2), 154-170.

Chen, J. Y., & Qiu, J. L. (2019). Digital Utility: Datafication, Regulation, Labor, and Didi's Platformization of Urban Transport in China. *Chinese Journal of Communication*.

Chen, W. (2019, September). Now I Know My ABCs: U.S.-China Policy on AI, Big Data, and Cloud Computing. *Asia Pacific Issues: Analaysis from the East-West Center, 140*.

Cheung, A. (2006). The Business of Governance: China's Legislation on Content Regulation in Cyberspace. *International Law and Politics, 38*(1).

China.org. (2017, May 15). *Kejibu Huoju Zhongxin Fabu Quanguo Shuangchuang Fuhua Zaiti Ditu*. Retrieved Feburary 20, 2019, from Xinhuanet: http://www.xinhuanet.com/itown/2017-05/15/c_136284755.htm

China.org.cn. (n.d.). *State Plans*. Retrieved from China.org.cn: http://www.china.org.cn/english/features/38303.htm

Cho, Y. (2019, July 22). *China's New Tech-Focused Exchange Falls Short of Promosies*. Retrieved from Nikkei Asian Review: https://asia.nikkei.com/Business/China-tech/China-s-new-tech-focused-exchange-falls-short-of-promises

Chu, Y.-w., & So, A. Y. (2010). State Neoliberalism: The Chinese Road to Capitalism. In Y.-w. Chu (Ed.), *Chinese Capitalisms: Historical Emergence and Political Implications.* Basingstoke: Palgrave Macmillan.

Cimpanu, C. (2019, March 20). *Google Bans VPN Ads in China*. Retrieved from ZDNet: https://www.zdnet.com/article/google-bans-vpn-ads-in-china/

Clinton, H. (2010, January 21). *Remarks on Internet Freedom*. Retrieved from U.S Department of State: https://2009-2017.state.gov/secretary/20092013clinton/rm/2010/01/135519.htm

CNN Money. (2000, May 11). *Chinese Web IPOs on Hold*. Retrieved from CNN Money: https://money.cnn.com/2000/05/11/deals/ipo/

CNNIC. (2018). *Statistical Report on Internet Development in China.* Beijing: China Internet Network Information Center.

CNNIC. (2019). *The 43rd Statistical Report on Internet Development in China.* Beijing: China Internet Network Information Center.

CNR. (2014, December 31). *Ma Yun de Xin Jihua: Alibaba Yaozuo Zhongguo de Guojia Qiye*. Retrieved from China National Radio: http://china.cnr.cn/xwwgf/20141231/t20141231_517280085.shtml

Cohn, S., & Miao, Y. (2018). The Dragon and the Eagle: Reforming China's Securities IPO Laws in the U.S Model, Pros and Cons. *Washing University Global Studies Law Review, 17*, 327-363.

Committee on International Relations House of Representatives. (2006, Feburary 15). Internet in China: A Tool for Freedom or Suppression? *Joint Hearing before the Subcommittee on Africa, Global Human Rights and International Operations*. Washington DC: U.S. Government Printing Office.

Connolly, M. (2007, Janurary 17). *EMI-Baidu Deal Seeks to End Copyright Piracy*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB116899323715678219

Constine, J. (2019, July 17). *Facebook's Regulation Dodge: Let Us, or China Will*. Retrieved from TechCrunch: https://techcrunch.com/2019/07/17/facebook-or-china/

Corrigan, T. (2018). Making Implicit Methods Explicit: Trade Press Analysis in the Political Economy of Communications. *International Journal of Communication, 12*, 2751-2772.

CPC Central Committe & State Council. (2009). 2009-2020 General Plan for Building Major Media's Capacity for International Communication.

CPC Central Committee. (2014, Janurary 16). *Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform*. Retrieved from China.org.cn: http://www.china.org.cn/china/third_plenary_session/2014-01/16/content_31212602.htm

Crandall, J., Crete-Nishihata, M., Knockel, J., McKune, S., Senft, A., Tseng, D., & Wiseman, G. (2013). Chat Program Censorship and Surveillance in China: Tracking TOM-Skype and Sina UC. *First Monday, 18*(7).

Creemers, R. (2017). Cyber China: Upgrading Propaganda, Public Opinion Work and Social Management for the Twenty-First Century. *Journal of Contemporary China*, 85-100.

Creemers, R. (2018). *China's Social Credit System: An Evolving Practice of Control*. Retrieved from SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3175792

Creemers, R. (2018). Disrupting the Chinese State: New Actors and New Factos. *Asiascape: Digital Asia, 5*, 169-197.

Culpan, T. (2019, July 22). *Wanna Bet $1.3 Trillion on Chinese Regulators?* Retrieved from The Washington Post: https://www.washingtonpost.com/business/wanna-bet-13trillion-on-chinese-regulators/2019/07/21/6240c2c0-ac0b-11e9-94ii-a608f9d0c2d3_story.html?utm_term=.e84814c1bbbf

Curtin, M. (2015). Conditions of Capital: Global Media in Local Contexts. In *Internationalizing "International Communication"* (pp. 109-133). University of Michigan Press.

Curtin, M. (2017). Between State and Capital: Asia's Media Revolution in the Age of Neoliberal Globalization. *International Journal of Communication, 11*, 1378-1396.

Cutchin, J. (2019, July 22). *How U.S Video Game Companies are Building Tools for China's Surveillance State*. Retrieved from Los Angeles Times: https://www.latimes.com/business/story/2019-07-21/american-game-developers-china-surveillance

Cyberspace Administration of China and China Securities Regulatory Commission. (2018, April 13). *关于印发《关于推动资本市场服务网络强国建设的指导意见》的通知*. Retrieved from Cyberspace Administration of China: http://www.cac.gov.cn/2018-04/13/c_1122676837.htm

Dai, S., & Yu, X. (2018, March 4). *China's Overseas-listed Tech Giants in Top Talks for Trading Homecoming*. Retrieved from South China Morning Post: https://www.scmp.com/news/china/policies-politics/article/2135572/chinas-overseas-listed-tech-giants-top-talks-trading

Dai, X. (2000). Chinese Politics of the Internet: Control and Anti-Control. *Cambridge Review of International Affairs, 13*(2), 181-194.

Daily, C., Certo, T., & Dalton, D. (2005). Investment Bankers and IPO Pricing: Does Prospectus Information Matter? *Journal of Business Venturing, 20*, 93-111.

Damm, J., & Thomas, S. (2006). Introduction: Chinese Cyberspaces: Technological Changes and Political Effects. In J. Damm, & S. Thomas (Eds.), *Chinese Cyberspaces: Technological Changes and Political Effects* (pp. 1-10). Abingdon: Routledge.

Dantas, M. (2019). The Financial Logic of Internet Platforms: The Turnover Time of Money at the Limit of Zero. *tripleC, 17*(1), 132-158.

Davis, A. (2011). Mediation, Financialization, and the Global Financial Crisis: An Inverted Political Economy Perspective. In D. Winseck, & D. Y. Jin (Eds.), *The Political Economies of Media: The Transformation of the Global Media Industries* (pp. 241-254). London: Bloomsbury.

Davis, A. (2018). Defining Speculative Value in the Age of Financialized Capitalism. *The Sociological Review, 66*(1), 3-19.

de Graaff, N. (2020). China Inc. goes Global. Transnational and National Networks of China's Globalizing Business Elite. *Review of International Political Economy, 27*(2), 208-233.

De Wet, D. (2015, April). Tencent Holdings Limited: An IPO Case Study. University of Cape Town.

Dean, J. (2000, June 1). *China Issues 'Trial' Online Ad Licenses in First Step Toward Regulating Sector*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB959813468751335604

Deibert, R., & Rohozinski, R. (2011). Access Contested: Toward the Fourth Phase of Cyberspace Controls. In *Access Contested: Security, Resistance, and Identity in Asian Cyberspace* (pp. 3-20). Cambridge: MIT Press.

Deibert, R., Palfrey, J., Rohozinski, R., & Zittrain, J. (Eds.). (2008). *Access Denied: The Practice and Policy of Internet Filtering.* Cambridge: MIT Press.

Deibert, R., Palfrey, J., Rohozinski, R., & Zittrain, J. (Eds.). (2010). *Access Controlled: Policies and Practices of Internet Filtering and Surveillance.* Cambridge: MIT Press.

Deibert, R., Palfrey, J., Rohozinski, R., & Zittrain, J. (Eds.). (2011). *Access Contested: Security, Resistance, and Identity in Asian Cyberspace.* Cambridge: MIT Press.

Delaney, K. (2004, June 15). *Google Acquires Stake in Baidu.com*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB108726053438937121

Delegation of the United States. (2018). *Communication From the United States: Measures Adopted and Under Development by China Relating to Its Cybersecurity Law.* World Trade Organization.

DeNardis, L. (2016). *One Internet: An Evidentiary Basis for Policy Making on Internet Universality and Fragmentation.* Global Communication on Internet Governance. Chatham House.

Deng, I. (2018, October 24). *Tencent Pushes Back on Report that Its Investments Have Slowed in Second Half, Citing 30 Ongoing Projects*. Retrieved from South China Morning Post: https://www.scmp.com/tech/big-tech/article/2169946/tencent-pushes-back-report-its-investments-have-slowed-second-half

DeWoskin, K. (2001). The WTO and the Telecommunications Sector in China. *China Quarterly*, 630-654.

Dong, F. (2012). Controlling the Internet in China: The Real Story. *Convergence: The International Journal of Research into New Media Technologies, 18*(4), 403-425.

Dong, X., & Jayakar, K. (2013). The Baidu Music Settlement: A Turning Point for Copyright Reform in China? *Journal of Information Policy*, 77-103.

Drake, W., Cerf, V., & Kleinwächter, W. (2016). *Internet Fragmentation: An Overview.* Future of the Internet Initiative White Paper, World Economic Forum.

Dror, Y. (2015). 'We Are Not Here For The Money': Founders' Manifestos. *New Media & Society, 17*(4), 540-555.

Drummond, D. (2010, January 12). *A New Approach to China*. Retrieved from Google Public Policy Blog: https://publicpolicy.googleblog.com/2010/01/new-approach-to-china.html

Drummond, D. (2010, June 28). *An Update on China*. Retrieved from Google Official Blog: https://googleblog.blogspot.com/2010/06/update-on-china.html

Duménil, G., & Lévy, D. (2004). *Capital Resurgent: Roots of the Neoliberal Revolution.* Cambridge: Harvard University Press.

Eaton, S. (2011). China's State Capitalist Turn: Political Economy of the Adavancing State. University of Toronto.

Eaton, S. (2015). *The Advance of the State in Contemporary China.* Cambridge University Press.

Edelman, B. (2015). Does Google Leverage Market Power Through Tying and Bundling? *Journal of Competition Law & Economics, 11*(2), 365-400.

Efrati, A., & Chao, L. (2012, January 12). *Google Softens Tone on China*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB10001424052970203436904577155003097277514

Elmer, G. (2013). IPO 2.0: The Panopticon Goes Public. *MediaTropes eJournal, IV*(1), 1-16.

Elmer, G. (2017). Precorporation: or What Financialisation Can Tell Us About the Histories of the Internet. *Internet Histories, 1*(1-2), 90-96.

Elmer, G. (2019). Prospecting Facebook: the Limits of the Economy of Attention. *Media, Culture & Society, 41*(3), 332-346.

Esarey, A. (2015). Winning Hearts and Minds? Cadres as Microbloggers in China. *Journal of Current Chinese Affairs, 44*(2), 69-103.

Facebook Business. (2018). *Facebook Guanfang de Renke Dailishang*. Retrieved from Facebook Business: https://reachtheworldonfacebook.com/reseller/

Fan, F. X. (2000). *Foreign Investment in China's Internet Business: Forbidden, Forgiven, Forced Open?* Washington D.C: Center for Strategic and International Studies.

Fang, K., & Repnikova, M. (2017). Demystifying “Little Pink”: The Creation and Evolution of a Gendered Label for Nationalistic Activists in China. *New Media & Society*, 1-24.

Feigenbaum, E. (1999). Who's Behind China's High-Technology "Revolution"?: How Bomb Makers Remade Beijing's Priorities, Policies, and Institutions. *International Security, 24*(1), 95-126.

Feigenbaum, E. (2017, August 12). *The Deep Roots and Long Branches of Chinese Technonationalism* . Retrieved from Marco Polo: https://macropolo.org/deep-roots-long-branches-chinese-technonationalism/

Fitzgerald, S. (2012). *Corporations and Cultural Industries: Time Warner, Bertelsmann, and News Corporation.* Lanham, MD: Lexington Books.

Fitzgerald, S., & Winseck, D. (2018). Media Economics: Missed Opportunities, Mischaracterizations. The Political Economy of Communication, 6(1), 83-97.

Flew, T. (2018). The New International Division of Cultural Labor, Global Media Studies, and the Cultural Rise of China. In M. Keane, B. Yecies, & T. Flew (Eds.), *Willing Collaborators: Foreign Partners in Chinese Media* (pp. 1-14). London: Rowman and Littlefield.

Flew, T., Iosifidis, P., & Steemers, J. (2016). Global Media and National Policies: The Return of the State. In T. Flew, P. Iosifidis, & J. Steemers (Eds.), *Global Media and National Policies: the Return of the State* (pp. 1-16). Basingstoke: Palgrave Macmillian.

Ford, C. A. (2019, September 11). *Huawei and its Siblings, the Chinese Tech Giants: National Security and Foreign Policy Implications*. Retrieved from U.S. Department of State: https://www.state.gov/huawei-and-its-siblings-the-chinese-tech-giants-national-security-and-foreign-policy-implications/

Foster, J., & McChesney, R. (2011). The Internet's Unholy Marriage to Capitalism. *Monthly Review*, 1-30.

Fu, K.-w., Chan, C.-h., & Chau, M. (2013). Assessing Censorship on Microblogs in China: Discriminatory Keyword Analysis and the Real-Name Registration Policy. *IEEE Internet Comupting, 17*(3), 42-50.

Fuchs, C. (2016). Baidu, Weibo and Renren: the Global Political Economy of Social Media in China. *Asian Journal of Communication, 26*(1), 14-41.

Fuchs, C., & Sevignani, S. (2013). What is Digital Labour? What is Digital Work? What's Their Difference? And Why Do These Questions Matter for Understanding Social Media? *TripleC, 11*(2), 237-293.

Gallagher, R. (2018, December 17). *Google's Secret China Project "Effectively Ended" After Internal Confrontation*. Retrieved from The Intercept: https://theintercept.com/2018/12/17/google-china-censored-search-engine-2/

Gallagher, R. (2018, August 8). *Inside Google's Effort to Develop a Censored Search Engine in China*. Retrieved from The Intercept: https://theintercept.com/2018/08/08/google-censorship-china-blacklist/

Gan, N. (2018, November 7). *China Reasserts its Right to Manage the Internet Its Own Way*. Retrieved from South China Morning Post: https://www.scmp.com/news/china/politics/article/2172045/chinas-top-leaders-absent-internet-conference-draws-less

Gao, H. (2011). Google's China Problem: A Case Study on Trade, Technology and Human Rights under the GATS. *Asian Journal of WTO and International Health Law and Policy, 6*(1), 137-169.

Gardiner, J. (2006, December 14). *Thompson Targets Google, Yahoo Over China Policy*. Retrieved from New York Sun: https://www.nysun.com/new-york/thompson-targets-google-yahoo-over-china-policy/45150

Garnham, N. (1979). Contribution to a Political Economy of Mass-Communication. *Media, Culture and Society, 1*, 123-146.

Garnham, N. (1995). Political Economy and Cultural Studies: Reconciliation or Divorce? *Critical Studies in Mass Communication, 12*, 62-71.

Gerlitz, C., & Helmond, A. (2013). The Like Economy: Social Buttons and the Data-Intensive Web. *New Media & Society, 15*(8), 1348-1365.

Gewirtz, J. (2019). The Futurists of Beijing: Alvin Toffler, Zhao Ziyang, and China's "New Technological Revolution," 1979–1991. *The Journal of Asian Studies, 78*(1), 115-140.

Gillespie, T. (2010). The Politics of 'Platforms'. *New Media & Society, 12*(3), 347-364.

Gleicher, N. (2019, August 19). *Removing Coordinated Inauthentic Behavior From China*. Retrieved from Facebook Newsroom: https://newsroom.fb.com/news/2019/08/removing-cib-china/

Goggin, G., & McLelland, M. (2009). The Internationalization of the Internet and Its Implications for Media Studies. In D. K. Thussu (Ed.), *Internationalizing Media Studies* (pp. 294-307). Abingdon: Routledge.

Gold, L. (2011, March). *Alum's Chinese Internet Company Attracts Some 50 Million Viewers Daily*. Retrieved December 1, 2017, from MIT Alumni Association: https://alum.mit.edu/news-views/alumni-profiles/alumni-profiles-archive/charles-zhang

Goldenberg, S. (2006, Feburary 16). *Congress Accuses Google of Collusion*. Retrieved from The Guardian: https://www.theguardian.com/technology/2006/feb/16/news.newmedia

Google Cloud. (n.d.). *Tencent Africa: Moving From Messaging App to Connectvity Platform*. Retrieved from Google Cloud: https://cloud.google.com/customers/tencent-africa/

Google Official Blog. (2006, Feburary 15). *Testimony: The Internet in China*. Retrieved from Google Official Blog: https://googleblog.blogspot.com/2006/02/testimony-internet-in-china.html

Google Temasek. (2018). *e-Conomy SEA 2018: Soustheast Asia's Internet Economy Hit an Inflection Point.*

GOV.cn. (2006, March 15). *更好地实施"走出去"战略*. Retrieved from The Central People's Government of the People's Republic of China: http://www.gov.cn/node_11140/2006-03/15/content_227686.htm

Gov.cn. (2009, June 18). *Google China bei qianze chuanbo yinhui seqing he disu xinxi*. Retrieved from The Central People's Government of the People's Republic of China: http://www.gov.cn/jrzg/2009-06/18/content_1344125.htm

Graef, I. (2018). When Data Envolves into Market Power- Data COncentration and Data Abuse Under Competition Law. In M. Moore, & D. Tambini (Eds.), *Digital Dominance: The Power of Google, Amazon, Facebook and Apple* (pp. 71-97). Oxford University Press.

Greenberg, J. (2015, November 4). *Facebook Says It Has Advertisers in China Despite Ban*. Retrieved from Wired: https://www.wired.com/2015/11/facebook-says-it-has-advertisers-in-china-despite-ban/

Greenleaf, G., & Livingston, S. (2017). China's Personal Information Standard: The Long March to a Privacy Law. *150 Privacy Laws & Business International Report*.

Gruin, J. (2019). Financializing Authoritarian Capitalism: Chinese Fintech and the Institutional Foundations of Algorithmic Governance. *Finance and Society, 5*(2), 84-104.

Gu, J. (2018). From Divergence to Convergence: Institutionalization of Copyright and the Decline of Online Video Piracy in China. *International Communication Gazette, 80*(1), 60-86.

Guang, W. (2010, January 23). *Google Incident and U.S. Internet Strategy*. Retrieved from China Daily: http://www.chinadaily.com.cn/cndy/2010-01/23/content_9365524.htm

Guthrie, D. (1998). The Declining Significance of Guanxi in China's Economic Transition. The China Quarterly, 154, 254-282.

Guo, L. (2014). Chinese-Style VIEs: Continuing to Sneak Under Smog? . *Cornell International Law Journal, 47*, 569-606.

GWToday. (2014, December 3). *China's Head of Cyberspace Discusses How to Build Mutual Trust with U.S.* Retrieved from GWToday: https://gwtoday.gwu.edu/china's-head-cyberspace-discusses-how-build-mutual-trust-us

Halliday, J. (2013, January 7). *Google's Dropped Anti-Censorship Warning Marks Quiet Defeat in China*. Retrieved from The Guardian: https://www.theguardian.com/technology/2013/jan/04/google-defeat-china-censorship-battle

Han, D. (2017). Paid Posting in Chinese Cyberspace: Commodification and Regulation. *Television & New Media*.

Hardy, J. (2010). The Contribution of Critical Political Economy. In *Media and Society* (5th Edition ed., pp. 186-209). London: Bloomsbury Academic.

Harjani, A. (2014, April 22). *Weibo Chairman: We Priced Our IPO Too Low*. Retrieved from CNBC: https://www.cnbc.com/2014/04/21/weibo-chairman-we-priced-our-ipo-too-low.html

Harvey, D. (2001). Globalization and the Spatial Fix. *Geographische Revue, 2*(3), 23-31.

Harwit, E. (2008). *China's Telecommunication Revolution.* Oxford: Oxford University Press.

Harwit, E., & Clark, D. (2001). Shaping the Internet in China: Evolution of Political Control over Network Infrastructure and Content. *Asian Survey, 41*(3), 377-408.

Harwit, E., & Clark, D. (2006). Government Policy and Political Control Over China's Internet. In J. Damm, & S. Thomas (Eds.), *Chinese Cyberspaces: Technological Changes and Political Effects* (pp. 11-37). Abingdon: Routledge.

Hassid, J. (2015). China's Responsiveness to Internet Opinion: A Double-Edged Sword. *Journal of Current Chinese Affairs, 44*(2), 39-68.

Haucap, J., & Heimeshoff, U. (2013). *Google, Facebook, Amazon, eBay: Is the Internet Driving Competition or Market Monopolization?* Düsseldorf Institute for Competition Economics. Düsseldorf: Heinrich-Heine-Universität Düsseldorf.

He, L., & Wei, R. (2019, January 23). *Shanghai's Hotly Anticipated Tech Board Vital to China's Global Financial Ambitions, Says Top Official*. Retrieved from South China Morning Post: https://www.scmp.com/business/companies/article/2183223/shanghais-hotly-anticipated-tech-board-vital-chinas-global

He, Z. (1997). A History of Telecommunications in China: Development and Policy Implications. In P. S. Lee (Ed.), *Telecommunications and Development in China* (pp. 55-89). Cresskill: Hampton Press.

Helft, M., & Wines, M. (2010, March 23). *Google Faces Fallout as China Reacts to Site Shift*. Retrieved from The New York Times: https://www.nytimes.com/2010/03/24/technology/24google.html

Helmond, A., Nieborg, D., & van der Vlist, F. (2019). Facebook's Evolution: Development of a Platform-as-Infrastructure. *Internet Histories, 3*(2), 123-146.

Herold, D. K. (2011). Introduction: noise, spectacle, politics: carnival in Chinese cyberspace. In D. K. Herold, & P. Marolt (Eds.), *Online Society in China: Creating, Celebrating, and Instrumentalising the Online Carnival* (pp. 1-20). London: Routledge.

Hesmondhalgh, D. (2010). Media Industry Studies, Media Production Studies. In J. Curran (Ed.), *Media and Society* (pp. 145-163). Bloomsbury.

Hindman, M. (2018). *The Internet Trap: How the Digital Economy Builds Monopolies and Undermines Democracy.* Oxford: Princeton University Press.

Ho, L. W. (2010). *Gay and lesbian subculture in urban China.* London: Routledge.

Ho, V., & Fung, A. (2016). Cultural Policy, Chinese National Identity and Globalisation. In T. Flew, P. Iosifidis, & J. Steemers (Eds.), *Global Media and National Policies: The Return of the State* (pp. 106-121). Basingstoke: Palgrave Macmillan.

Hong, Y. (2013). Repurposing Telecoms for Capital in China: System Development and Inequality. *Asian Survey, 53*(2), 319-347.

Hong, Y. (2014). Between Corporate Development and Public Service: the Cultural System Reform in the Chinese Media Sector. *Media, Culture & Society, 36*(5), 610-627.

Hong, Y. (2017). Pivot to Internet Plus: Molding China's Digital Economy for Economic Restructuring? *International Journal of Communication, 11*, 1486-1509.

Hong, Y. (2017). *Networking China: the Digital Transformation of the Chinese Economy.* Urbana: University of Illinois Press.

Hong, Y. (2017). Reading the 13th Five-Year Plan: Reflections on China's ICT Policy. *International Journal of Communication, 11*, 1755-1774.

Hong, Y., & Goodnight, T. (2019). How to Think about Cyber Sovereignty: the Case of China. *Chinese Journal of Communication*.

Hong, Y., & Harwit, E. (2020). China's Globalizing Internet: History, Power, and Governance. *Chinese Journal of Communication*.

Hong, Y., & Xu, J. (2019). Toward Fragmented Platform Governance in China: Through the Lens of Alibaba and the Legal-Judicial System. *International Journal of Communication, 13*, 1-21.

Horwitz, J. (2017, October 16). *Google is Hoping a Chinese-American Rapper Can Help it Break Back Into China*. Retrieved from Quartz: https://qz.com/1103178/google-is-hoping-hip-hop-and-chinese-american-rapper-mc-jin-can-hep-it-break-back-into-china/

Hsueh, R. (2015). Nations or Sectors in the Age of Globalization: China's Policy Toward Foreign Direct Investment in Telecommunications. *Review of Policy Research, 32*(6), 627-648.

Hu, H. (2007). The Political Economy of Governing ISPs in China: Perspectives of Net Neutrality and Vertical Integration. *The China Quarterly, 207*, 523-540.

Hu, K. (2018, September 11). *Jack Ma's Departure Spurs Debate Over Alibaba's Governance Structure*. Retrieved from Yahoo Finance: https://ca.finance.yahoo.com/news/jack-mas-departure-spurs-debate-alibabas-governance-structure-145137075.html

Hu, Y., & Peters, B. (2019). A Conversation on Network Histories. In P. Bory, G. Negro, & G. Balbi (Eds.), *Computer Network Histories: Hidden Streams From the Internet Past* (Vol. 21, pp. 115-124). Zürich: CHRONOS.

Hu, Z. (2003). The Post-WTO Restructuring of the Chinese Media Industries and the Consequences of Capitalisation. *The Public, 10*(4), 19-36.

Hu, Z. (2007). The Chinese Model and Paradigm of Media Studies. *Global Media and Communication, 3*(3), 335-339.

Hu, Z., & Ji, D. (2012). Ambiguities in Communicating With the World: the "Going-out" Policy of China's Media and Its Multilayered Contexts. *Chinese Journal of Communication, 5*(1), 32-37.

Hu, Z., Ji, D., & Gong, Y. (2018). From the Outside In: CCTV Going Global In a New World Communication Order. In *China's Media Go Global* (Thussu, Daya Kishan; de Burgh, Hugo; Shi, Anbin ed., pp. 67-78). Abingdon: Routledge.

Huang, C. (2007). Trace the Stones in Crossing the River: Media Structural Changes in Post-WTO China. *The International Communication Gazette, 69*(5), 413-430.

Huang, R., & Sun, X. (2012). Weibo Network, Information Diffusion and Implications for Collective Action in China. *Information, Communication & Society, 17*(1), 86-104.

Hughes, C. (2004). Controlling the Internet Architecture. In F. Mengin (Ed.), *Cyber China: Reshaping National Indetities in the Age of Information* (pp. 71-90). New York: Palgrave MacMillan.

Human Rights Watch. (2018, August 28). *Open Letter to Google on Reported Plans to Launch a Censored Search Engine in China*. Retrieved from Human Rights Watch: https://www.hrw.org/news/2018/08/28/open-letter-google-reported-plans-launch-censored-search-engine-china

Hung, C.-F. (2011). The Politics of Electronic Social Capital and Public Sphere in Chinese Lala Community: Implications for Civil Society. *International Journal of China Studies, 2*(2), 369-288.

IDG News Service. (2009, March 6). *Google Share of China Search Market Inches Up in 2008*. Retrieved from PCWorld: https://www.pcworld.com/article/160818/article.html

Internet Society of China. (2002, March 26). *Public Pledge of Self-Regulation and Professional Ethics for China Internet Industry*. Retrieved from Internet Society of China: http://www.isc.org.cn/english/Specails/Self-regulation/listinfo-15321.html

Isaac, M. (2016, November 22). *Facebook Said to Create Censorship Tool to Get Back Into China*. Retrieved from The New York Times: https://www.nytimes.com/2016/11/22/technology/facebook-censorship-tool-china.html?module=inline

Jacobs, A. (2010, January 11). *Google Apologizes to Chinese Authors*. Retrieved from The New York Times: https://www.nytimes.com/2010/01/12/technology/companies/12google.html

Jenkins, H. (2004). The Cultural Logic of Media Convergence. International Journal of Cultural Studies, 7(1), 33-43.

Jia, C., & Yu, X. (2009, December 16). *Writer Sues Google For Copyright Infringement*. Retrieved from China Daily: http://www.chinadaily.com.cn/china/2009-12/16/content_9184029.htm

Jia, K., & Kenney, M. (2016). *Mobile Internet Business Models in China: Vertical Hierarchies, Horizontal Conglomerates, or Business Groups?* Berkeley Roundtable on The International Economy. University of California Berkeley.

Jia, L. (2018). Going Public and Going Global: Chinese Internet Companies and Global Finance Networks. *Westminster Papers in Communication and Culture*, 13(1), 17-36.

Jia, L. (2019). What Public and Whose Opinion? A Study of Chinese Online Public Opinion Analysis. *Communication and Public, 4*(1), 21-34.

Jia, L., & Winseck, D. (2018). The Political Economy of Chinese Internet Companies: Financialization, Concentration, and Capitalization. *International Communication Gazette, 80*(1), 30-59.

Jia, L., & Zhou, T. (2017). The 'Making' of an Online Celebrity: A Case Study of Chinese Rural Gay Couple An Wei and Wu Yebin. In M. Kent, K. Ellis, & J. Xu (Eds.), *Chinese Social Media: Social, Cultural, and Political Implications* (pp. 42-58). New York: Routledge.

Jia, Y. (2010, Feburary 10). *Goojje 'Will Not Change'*. Retrieved from China Daily: http://www.chinadaily.com.cn/china/2010-02/10/content_9453554.htm

Jiang, M. (2010). Authoritarian Deliberation on Chinese Internet. *The Electronic Journal of Communication, 20*(3&4).

Jiang, M. (2012). Internet Companies in China: Dancing between the Party Line and the Bottom Line. *Asie. Visions*(47).

Jiang, M. (2016). *The Coevolution of the Internet, (Un)Civil Society, and Authoritarianism in China.* (J. deLisle, A. Goldstein, & G. Yang, Eds.) Philadelphia: University of Pennsylvania Press.

Jiang, M., & Fu, K.-W. (2018). Chinese Social Media and Big Data: Big Data, Big Brother, Big Profit? *Policy and Internet, 10*(4), 372-392.

Jiang, S., & Roantree, A. M. (2018, August 15). *Tencent Shares Hit by Profit Drop, Freeze on New Game Approvals in China*. Retrieved from Reuters: https://www.reuters.com/article/us-tencent-stocks/tencent-shares-hit-by-profit-drop-freeze-on-new-game-approvals-in-china-idUSKBN1L1043

Jin, D. Y. (2013). The Construction of Platform Imperialism in the Globalization Era. *tripleC: Communication, Capitalism & Critique, 11*(1), 145-172.

Jin, W. (2014, December 12). *Momo's Founder Bashed Ahead of US IPO filing*. Retrieved from China.org.cn: http://www.china.org.cn/wap/2014-12/12/content_34303803.htm

Jun, X. (2019, January 29). *BT's Telecom License in China Shows Nation's Resovle to Open Up Further: Analysts*. Retrieved from Global Times: http://www.globaltimes.cn/content/1137477.shtml

Kahn, J. (2002, September 12). *China Toughens Obstacles to Internet Searches*. Retrieved from The New York Times: https://www.nytimes.com/2002/09/12/world/china-toughens-obstacles-to-internet-searches.html

Kan, M. (2012, September 21). *Google Yanks Free Music Service in China*. Retrieved from PCWorld From IDG: https://www.pcworld.com/article/2010313/google-yanks-free-music-service-in-china.html

Keane, M., & Chen, Y. (2019). Entreprenuerial Solutionsim, Characteristic Cultural Industries and the Chinese Dream. *International Journal of Cultural Policy, 25*(6), 743-755.

Keane, M., & Wu, H. (2018). Lofty Ambitions, New Territories, and Turf Battles: China's Platforms "Go Out". *Media Industries, 5*(1), 51-68.

Khan, L. (2017). Amazon's Antitrust Paradox. *The Yale Law Journal, 126*(3), 701-805.

Kim, S. W., & Douai, A. (2012). Google vs. China's "Great Firewall": Ethical Implications For Free Speech and Sovereignty. *Technology in Society, 34*, 174-181.

King, G., Pan, J., & Roberts, M. (2013). How Censorship in China Allows Government Criticism but Silences Collective Expression. *American Political Science Review, 107*(2), 1-18.

King, G., Pan, J., & Roberts, M. (2017). How the Chinese Government Fabricates Social Media Posts for Strategic Distraction, Not Engaged Argument. *American Political Science Review, 111*(3), 484-501.

Knockel, J., Ruan, L., Crete-Nishihata, M., & Deibert, R. (2018, August 14). *(Can't) Picture This: an Analysis of Image FIltering on WeChat Moments*. Retrieved from The Citizen Lab: https://citizenlab.ca/2018/08/cant-picture-this-an-analysis-of-image-filtering-on-wechat-moments/

Kokas, A. (2018). Chilling Netflix: Financialization, and the Influence of the Chinese Market on the American Entertainment Industry. *Information, Communication & Society*.

Kokas, A. (2018). Platform Patrol: China, the United States, and the Global Battle for Data Security. *The Journal of Asian Studies, 77*(4), 923-933.

Krippner, G. (2005). The Financialization of the American Economy. *Socio-Economic Review, 3*, 173-208.

LaForgia, M., & Dance, G. (2018, June 5). *Facebook Gave Data Access to Chinese Firm Flagged by U.S. Intelligence*. Retrieved from The New York Times: https://www.nytimes.com/2018/06/05/technology/facebook-device-partnerships-china.html

Lapavitsas, C. (2013). The Financialization of Capitalism: "Profiting Without Producing". *City, 17*(6), 792-805.

Lapavitsas, C., & Mendieta-Muñoz, I. (2016). The Profits of Financialization. *Monthly Review, 68*(3).

Larsen, B. (2019, November 18). *Drafting China's National AI Team for Governance*. Retrieved from New America: https://www.newamerica.org/cybersecurity-initiative/digichina/blog/drafting-chinas-national-ai-team-governance/

Leander, A. (2001). Dependency Today-Finance, Firms, Mafias and the State: a Review of Susan Strange's Work From a Developing Country Perspective. *Third World Quarterly, 22*(1), 115-128.

Lee, C.-C. (2003). The Global and the National of the Chinese Media: Discourses, Market, Technology and Ideology. In *Chinese Media, Global Contexts* (pp. 1-32). London: RoutledgeCurzon.

Lee, J.-A. (2017). *Hacking into China's Cybersecurity Law.* The Chinese University of Hong Kong.

Lee, J.-A., & Liu, C.-Y. (2012). Forbidden City Enclosed by the Great Firewall: The Law and Power of Internet Filtering in China. *Minnesota Journal of Law, Science & Technology, 13*(1), 125-151.

Lee, M. (2013). Information and Finance Capital. *Information, Communication & Society, 16*(7), 1139-1156.

Lee, M. (2014). What Can Political Economists Learn From Economic Sociologists? A Case Study of NASDAQ. *Communication, Culture & Critique, 7*, 246-263.

Lee, M. (2019). *Alphabet: the Becoming of Google.* New York: Routledge.

Lei, Y.-W. (2011). The Political Consequences of the Rise of the Internet: Political Beliefs and Practices of Chinese Netizens. *Political Communication, 28*(3).

Lemon, S. (2002, September 10). *China Hijacks Google's Domain Name*. Retrieved from Computerworld: https://www.computerworld.com/article/2576873/china-hijacks-google-s-domain-name.html

Leong, S. (2018). Prophets of Mass Innovation: The Gospel According to BAT. *Media Industries, 5*(1), 69-87.

Letzing, J., & Mozur, P. (2012, May 20). *China Clears Google to Buy Motorola Mobility*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB10001424052702303360504577414280414923956

Levina, M., & Hasinoff, A. A. (2016). The Silicon Valley Ethos: Tech Industry Products, Discourses, and Practices. *Television & New Media, 18*(6), 1-7.

Li, C. (2011, June 1). *Toward A New World Media Order: We Need a Mechansim to Coordinate the Global Communications Industry, Something Like a 'Media U.N'*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB10001424052748704816604576335563624853594

Li, H. (2016). Chinese Culture 'Going Out': An Overview of Government Policies and an Analysis of Challenges and Opportunities for International Collaboration. In M. Keane (Ed.), *Handbook of Cultural and Creative Industries in China* (pp. 129-42). Cheltenham: Edward Elgar.

Li, J. (2019, October 23). *The "SoftBank of China" has Invested in More Unicorns than SoftBank*. Retrieved from Quartz: https://qz.com/1733132/chinas-tencent-has-invested-in-more-unicorns-than-softbank/

Li, J. Y. (2005). *Investing in China: The Emerging Venture Capital Industry.* London: GMB Publishing.

Li, L. N. (2017). Rethinking the Chinese Internet: Social History, Cultural Forms, and Industrial Formation. *Television & New Media, 18*(5), 393-409.

Li, X. (2019, June 18). Changing Employment Relations and Labour Agency in the Tech Industry. *Made in China Journal*.

Liao, R. (2019, July 16). *Snap Turns to Search Giant Baidu to Court Chinese Advertisers*. Retrieved from TechCrunch: https://techcrunch.com/2019/07/16/snap-baidu-partnership/

Lin, J. (2007). Regulating globalization: Domestic Response to International Investment in China's Media Market. In O. Boyd-Barrett (Ed.), *Communications Media, Globalization, and Empire*. Indiana University Press.

Lin, L., & Chin, J. (2017, November 30). *China's Tech Giants Have a Second Job: Helping Beijing Spy on Its People*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/chinas-tech-giants-have-a-second-job-helping-the-government-see-everything-1512056284

Lin, L.-W., & Milhaupt, C. (2013). We Are the (National) Champions: Understanding the Mechanisms of State Capitalism in China. *Stanford Law Review, 65*, 697- 759.

Lin, T. Z., & Tian, X. (2018). Audience Design and Context Discrepancy: How Online Debates Lead to Opinion Polarization. *Symbolic Interaction*.

Lin, Y.-H., & Mehaffy, T. (2016). Open Sesame: The Myth of Alibaba's Extreme Corporate Governance and Control. *Brooklyn Journal of Corporate, Financial & Commercial Law, 10*(2), 437-472.

Liu, M. (2018). The New Chinese Foreign Investment Law and Its Implication on Foreign Investors. *Northwestern Journal of International Law & Business, 38*(2), 285-306.

Liu, Y. (2012). The Rise of China and Global Internet Governance. *China Media Research, 8*(2), 46-55.

Lorenzetti, L. (2014, September 17). *Alibaba's IPO has made Masayoshi Son Japan's Richest Man*. Retrieved December 1, 2017, from Fortune: http://fortune.com/2014/09/17/alibabas-ipo-has-made-masayoshi-son-japans-richest-man/

Lu, J. (2011). American Internet Companies' Predicament in China: Google, EBay, and MSN Messenger. *javnost-the public, 18*(1), 75-92.

Lu, M. (2019, September 8). *How Can China Cope With US Technological Decoupling?* Retrieved from Global Times: http://www.globaltimes.cn/content/1163976.shtml

Lucas, L. (2018, November 21). *Investments Fuel a Third of Profits at Tencent and Alibaba*. Retrieved from Financial Times: https://www.ft.com/content/0b4c978c-ec94-11e8-89c8-d36339d835c0

Lucas, L. (2018, August 21). *Tencent's ties with its holdings run deep*. Retrieved from Financial Times: https://www.ft.com/content/87208854-a500-11e8-926a-7342fe5e173f

Lugg, A. (2013). Mantous and Alpacas as Weapons of the Weak: Chinese Spoof Video and Self-Expression Online. *First Monday, 18*(7).

Ma, D. (n.d.). *Torchbearer: Igniting Innovation in China's Tech Clusters*. Retrieved from Marco Polo: https://macropolo.org/china-torch-program-innovation/?fbclid=IwAR09DoEFqOoNPB5S_jGO1UXTR3jkHCwdbmj1SEgrlZFqrQPxmK8kjNWPGhY

Ma, W., & Abkowitz, A. (2018, July 9). *For China, Tech Giant Tencent is Both a National Champions and a Threat*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/why-china-is-keeping-a-close-eye-on-tech-giant-tencent-1531047602

MacKinnon, R. (2012). *Consent of the Networked: The Worldwide Struggle for Internet Freedom.* Basic Books.

Mai, J. (2017, December 3). *Xi Jinping Renews 'Cyber Sovereignty' Call at China's Top Meeting of Internet Minds*. Retrieved from South China Morning Post: https://www.scmp.com/news/china/policies-politics/article/2122683/xi-jinping-renews-cyber-sovereignty-call-chinas-top

Man, Y. (2015). Policy Above Law: VIE and Foreign Investment Regulation in China. *Peking University Transnational Law Review, 3*(1), 215- 222.

Marcus, D. (2019, July 17). *Hearing Before the United States House of Representatives Committe on Financial Services: Testimony of David Marcus.* Retrieved from United States House Committe on Financial Services: https://financialservices.house.gov/uploadedfiles/hhrg-116-ba00-wstate-marcusd-20190717.pdf

Martin, R. (2002). *Financialization of Daily Life.* Philadelphia: Temple University Press.

Martina, M. (2017, August 24). *In China, the Party's Push for Influence Inside Foreign Firms Stirs Fears*. Retrieved from Reuters: https://www.reuters.com/article/us-china-congress-companies/exclusive-in-china-the-partys-push-for-influence-inside-foreign-firms-stirs-fears-idUSKCN1B40JU

McChesney, R. (2013). *Digital Disconnect: How Capitalism is Turning the Internet Away from Democracy.* New Press.

McDonald, J. (2001, October 22). *AOL Signs Landmark Deal With China*. Retrieved from Washington Post: http://www.washingtonpost.com/wp-srv/aponline/20011022/aponline124610_000.htm

McDonald, T. (2016). *Social Media in Rural China.* London: UCLPress.

McKune, S., & Ahmed, S. (2018). The Contestation and Shaping of Cyber Norms Through China's Internet Sovereignty Agenda. *International Journal of Communication, 12*, 3835-3855.

McLelland, M., Yu, H., & Goggin, G. (2017). Alternative Histories of Social Media in Japan and China. In J. Burgess, A. Marwick, & T. Poell (Eds.), *The Sage Handbook of Social Media.* SAGE Publications.

Mejias, U., & Couldry, N. (2019). Datafication. *Internet Policy Review, 8*(4).

Meng, B. (2010). Moving Beyond Democratization: A Thought Piece on the China Internet Research Agenda. International Journal of Communication, 4, 501-508.

Meng, B. (2011). From Steamed Bun to Grass Mud Horse: E Gao as alternative political discourse on the Chinese Internet. *Global Media and Communication, 7*(1), 33-51.

Meng, B., & Huang, Y. (2017). Patriarchal Capitalism with Chinese Characteristics: Gendered Discourse of 'Double Eleven' Shopping Festival. *Culltural Studies, 31*(5), 659-684.

Meng, B., & Rantanen, T. (2015). A Change of Lens: A Call to Compare the Media in China and Russia. *Critical Studies in Media and Communication, 32*(1), 1-15.

Miao, W., & Lei, W. (2016). Policy Review: The Cyberspace Administration of China. *Global Media and Communication, 12*(3), 337-340.

Miège, B. (2011). Principal Ongoing Mutations of Cultural and Informational Industries. In D. Winseck, & D. Y. Jin (Eds.), *The Political Economies of Media: The Transformation of the Global Media Industries* (pp. 51-65). London: Bloomsbury Academic.

Milhaupt, C., & Zheng, W. (2015). Beyond Ownership: State Capitalism and the Chinese Firm. *The Georgetwon Law Journal, 103*, 665-722.

Millward, S. (2012, April 11). *Google Rolls Out Its Real-Time DoubleClick Ad Exchange in China*. Retrieved from TechinAsia: https://www.techinasia.com/google-doubleclick-ad-network-china-launch

Millward, S. (2013, July 24). *Sina Weibo Targets New Users Outside China, Now Lets You Sign Up Via Facebook*. Retrieved from TechinAsia: https://www.techinasia.com/sina-weibo-facebook-login

Ministry of Commerce. (2008, August 3). *Anti-monopoly Law of the People's Republic of China*. Retrieved from Ministry of Commerce People's Republic of China: http://english.mofcom.gov.cn/article/policyrelease/Businessregulations/201303/20130300045909.shtml

Ministry of Commerce of People's Republic of China. (2013). *2012 Statistical Bulletin of China's Outward Foreign Direct Investment.*

Ministry of Commerce of People's Republic of China. (2014). *2013 Statistical Bulletin of China's Outward Foreign Direct Investment.*

Ministry of Commerce of People's Republic of China. (2015). *2014 Statistical Bulletin of China's Outward Foreign Direct Investment.*

Ministry of Commerce of People's Republic of China. (2016). *2015 Statistical Bulletin of China's Outward Foreign Direct Investment.*

Ministry of Commerce of People's Republic of China. (2017). *2016 Statistical Bulletin of China's Outward Foreign Direct Investment.*

Ministry of Commerce of People's Republic of China. (2018). *2017 Statistical Bulletin of China's Outward Foreign Direct Investment.*

Moon, A. (2019, May 19). *Exclusive: Google Suspends Some Business With Huawei After Trump Blacklist*. Retrieved from Reuters: https://www.reuters.com/article/us-huawei-tech-alphabet-exclusive/exclusive-google-suspends-some-business-with-huawei-after-trump-blacklist-source-idUSKCN1SP0NB

Moore, M., & Tambini, D. (Eds.). (2018). *Digital Dominance: The Power of Google, Amazon, Facebook and Apple.* New York: Oxford University Press.

Mosco, V. (2004). *The Digital Sublime: Myth, Power, and Cyberspace.* Cambridge: MIT Press.

Mosco, V. (2009). *The Political Economy of Communication (Second Edition).* London: Sage Publishing.

MOST. (2004, September 30). *China Science and Technology Newsletter No. 380*. Retrieved from Ministry of Science and Technology of the People's Republic of China: http://www.most.gov.cn/eng/newsletters/2004/200411/t20041130_17780.htm

Mozur, P. (2018, July 25). *China Said to Quickly Withdraw Approval for New Facebook Venture*. Retrieved from The New York Times:

https://www.nytimes.com/2018/07/25/business/facebook-china.html?_ga=2.177940261.1689999047.1569473057-1734298156.1499702040
Mozur, P., & Qiqing, L. (2019, Feburary 7). *How Facebook's Tiny China Sales Floor Helps Generate Big Ad Money*. Retrieved from The New York Times: https://www.nytimes.com/2019/02/07/technology/facebook-china-internet.html
Mueller, M., & Tan, Z. (1997). *China in the Information Age: Telecommunications and the Dilemmas of Reform.* Washington: Praeger.
Mueller, M., & Tan, Z. (1997). *China in the Information Age: Telecommunications and the Dilemmas of Reform.* DC: The Center of Strategic and International STudies.
Murdock, G. (1978). Blindspots about Western Marxism: A Reply to Dallas Smythe. *Canadian Journal of Political and Social Theory, 2*(2), 109-120.
Murdock, G. (1982). Large Corporations and the Control of the Communications Industries. In M. Gurevitch, T. Bennett, J. Curran, & J. Woollacott (Eds.), *Culture, Society and the Media* (pp. 114-147). London: Routledge.
Murdock, G., & Golding, P. (1973). For a Political Economy of Mass Communications. *Socialist Register, 10*, 205-234.
Murdock, G., & Golding, P. (2009). Digital Possibilities, Market Realities: The Contradictions of Communications Convergence. *Socialist Register, 38*, 111-129.
Nam, S. (2018). Cognitive Capitalism, Free Labor, and Financial Communication: A Critical Discourse Analysis of Social Media IPO Registration Statements. *Information, Communication & Society*.
National Development and Reform Commission, Ministry of Commerce. (2017). 《外商投资产业指导目录（2017 年修订）》.
National Development and Reform Commission, Ministry of Commerce. (2019). 《外商投资准入特别管理措施(负面清单)(2019 年版)》.
Negro, G. (2019). A history of Chinese global Internet governance and its relations with ITU and ICANN. *Chinese Journal of Communication*.
Negro, G. (2019). From the Internet in China to the Chinese Internet. In G. Balbi, J. Fei, & G. Richeri (Eds.), *China and Global Media Landscape: Remapping and Remapped* (pp. 73-96). Newcastle upon Tyne: Cambridge Scholars Publishing.
Netease. (2000, September 18). *Forbes Global: Special Advertising section - Greatest China's Hot Dot.Coms*. Retrieved December 1, 2017, from Press Coverage: http://corp.163.com/news_eng/001030/001030_323.html
Netease. (2001, October 24). *Class Action Complaint Filed Against NetEase.com and Other Parties*. Retrieved December 1, 2017, from News Release: http://ir.netease.com/phoenix.zhtml?c=122303&p=irol-newsArticle&ID=1652874
NetEase. (2003, July 4). *NetEase.com Enters into Agreement With Affiliates of The News Corporation Limited for Purchase of Shares and Other Transactions*. Retrieved November 29, 2017, from NetEase News Release: http://ir.netease.com/phoenix.zhtml?c=122303&p=irol-newsArticle&ID=1652888

Neuwirth, R. (2019). China and the "Cultural and Trade" Debate: a Holistic Approach. *International Journal of Cultural Policy, 25*(5), 629-647.

Ng, J. (2013). *Blocked on Weibo: What Gets Suppressed on China's Version of Twitter (and Why).* New York: The New Press.

Ng, J. (2014). Going Global. *World Policy Journal, Fall*.

Nieborg, D., & Helmond, A. (2019). The Political Economy of Facebook's Platformization in the Mobile Ecosystem: Facebook Messenger as a Platform Instance. *Media, Culture & Society, 41*(2), 196-218.

Ning, L. (2009). China's Leadership in the World ICT Industry: A Successful Story of Its "Attracting-in" and "Walking-out" Strategy for the Development of High-Tech Industries? *Pacific Affairs, 82*(1), 67-91.

Noam, E. (2013). Towards the Federated Internet. *InterMEDIA, 41*(4), 10-13.

Nolan, P. (2014). *Chinese Firms, Global Firms: Industrial Policy in the Age of Globalization.* Abingdon: Routledge.

Nossel, S. (2018, September 10). *Google is Handing the Future of the Internet to China*. Retrieved from Foreign Policy: https://foreignpolicy.com/2018/09/10/google-is-handing-the-future-of-the-internet-to-china/

Nye, J. (1990, Autumn). Soft Power. Foreign Policy, 80, pp. 153-171.

O Fathaigh, R., Van Hoboken, J., & Van Eijk, N. (2018). Mobile Privacy and Business-to-Platform Dependencies: An Analysis of SEC Disclosures. *Journal of Business and Technology Law, 14*(1), 49-106.

O'Connor, J. (2014, August 23). *The Battle for Soft Power: America's Digital Cold War With China*. Retrieved from Huffpost: https://www.huffpost.com/entry/america-china-digital-war_b_5523110

Office of the Press Secretary. (2015, September 25). *Remarks by President Obama and President Xi of the People's Republic of China in Joint Press Conference*. Retrieved from The White House: https://obamawhitehouse.archives.gov/the-press-office/2015/09/25/remarks-president-obama-and-president-xi-peoples-republic-china-joint

O'Regan, T., & Li, L. (2019). Recalibrating China in a Time of Platforms. In A. Athique, & E. Baulch (Eds.), *Digital Transactions in Asia: Economic, Informational, and Social Exchanges.* New York: Routledge.

O'Reilly, T. (2019, Feburary 5). *The Fundamental Problem with Silicon Valley's Favorite Growth Strategy*. Retrieved from Quartz: https://qz.com/1540608/the-problem-with-silicon-valleys-obsession-with-blitzscaling-growth/

Osnos, E. (2010, January 14). *China and Google: "Illegal Flower Tribute"*. Retrieved from The New Yorker: https://www.newyorker.com/news/evan-osnos/china-and-google-illegal-flower-tribute

Page, C. (2006, April 16). *Google Caves to China's Censors*. Retrieved from Chicago Tribune: https://www.chicagotribune.com/news/ct-xpm-2006-04-16-0604160321-story.html

Pan, F., & Brooker, D. (2014). Going Global? Examining the Geography of Chinese Firms' Overseas Listings on International Stock Exchanges. *Geoforum, 52*, 1-11.

Pan, F., Zhao, S., & Wójcik, D. (2016). The Rise of Venture Capital Centres in China: A Spatial and Network Analysis. *Geoforum, 75*, 148-158.

Pan, J. (2017). How Market Dynamics of Domestic and Foreign Social Media Firms Shape Strategies of Internet Censorship. *Problems of Post-Communism, 3*(4), 167-188.

Pan, J. (2019). How the Market for Social Media Shapes Strategies of Internet Censorship. In M. Delli Carpini (Ed.), *Digital Media and Democratic Futures* (pp. 196-230). Philadelphia: University of Pennsylvania Press.

Paul, K. (2019, June 7). *Exclusive: Facebook Suspends App Pre-installs on Huawei Phones*. Retrieved from Reuters: https://www.reuters.com/article/us-huawei-tech-usa-facebook-exclusive/exclusive-facebook-suspends-app-pre-installs-on-huawei-phones-idUSKCN1T80D7

Perez, B. (2016, April 7). *BAT-Baidu, Alibaba and Tencent-Lead Charge in China Mergers and Show No Sign of Slowing Down*. Retrieved from South Morning China Post: http://www.scmp.com/business/companies/ article/1934083/bat-baidu-alibaba-and-tencent-lead-charge-china-mergers-and-show

Perez, C. (2002). *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages.* Cheltenham: Edward Elgar.

Perez, C. (2009). The Double Bubble at the Turn of the Century: Technological Roots and Structural Implications. *Cambridge Journal of Economics, 33*, 779-805.

Petry, J. (2020). Financialization with Chinese Characteristics? Exchanges, Control and Capital Markets in Authoritarian Capitalism. *Economy and Society, 49*(2), 213-238.

Picard, R. (2011). *The Economics and Financing of Media Companies* (2n Edition ed.). New York: Fordham University Press.

Plantin, J.-C. (2018). Google Maps as Cartographic Infrastructure: From Participatory Mapmaking to Database Maintenance. *International Journal of Communication, 12*, 489-506.

Plantin, J.-C., & de Seta, G. (2019). WeChat as Infrastructure: the Techno-nationalist Shaping of Chinese Digital Platforms. *Chinese Journal of Communication*.

Plantin, J.-C., Lagoze, C., Edwards, P., & Sandvig, C. (2016). Infrastructure Studies Meet Platform Studies in the Age of Google and Facebook. *New Media & Society, 20*(1), 293-310.

Pon, B., Seppälä, T., & Kenney, M. (2014). Android and the Demise of Operating System-based Power: Firm Strategy and Platform Control in the Post-PC World. *Telecommunications Policy, 38*, 979-991.

Poon, T. (2007, June 20). *Google Clears Hurdle on China Web Content*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB118224648064540324

Postelnicu, A., & Nuttall, C. (2005, August 5). *Baidu Shares Skyrocket in Market Debut*. Retrieved from Financial Times: https://www.ft.com/content/2fc3c1f0-05c9-11da-883e-00000e2511c8

Powers, S., & Jablonski, M. (2015). *The Real Cyber War: the Political Economy of Internet Freedom.* University of Illinois Press.

Powers, S., & Jablonski, M. (2015). *The Real Cyber War: the Political Economy of Internet Freedom.* Urbana: University of Illinois Press.

Qiu, J. L. (2003). The Internet in China: Data and Issues. *Annenberg Research Seminar on International Communication.*

Qiu, J. L., & Bu, W. (2013). China ICT Studies: A Review of the Field, 1989-2012. *The China Review, 13*(2), 123-152.

Rabinovitch, S. (2012, April 20). *People's Daily Website IPO Raises $219m*. Retrieved Janurary 30, 2018, from Financial Times: https://www.ft.com/content/9f927c42-8ace-11e1-912d-00144feab49a

Radu, S. (2020, Janurary 31). *New Warnings Over China's Efforts in Quantum Computing*. Retrieved from U.S.News: https://www.usnews.com/news/best-countries/articles/2020-01-31/google-quantum-chief-warns-china-can-quickly-develop-supercomputers

Rauchfleisch, A., & Schäfer, M. (2015). Multiple public spheres of Weibo: a typology of forms and potentials of online public spheres in China. *Information, Communication & Society, 18*(2), 139-155.

Repnikova, M., & Libert, T. (2015, September 21). *Google is Returning to China? It Never Really Left*. Retrieved from The Guardian: https://www.theguardian.com/technology/2015/sep/21/google-is-returning-to-china-it-never-really-left

Reuters. (2007, August 20). *Google Reveals Stake in Chinese Social Web Tianya*. Retrieved from Reuters: https://www.reuters.com/article/us-google-china-tianya/google-reveals-stake-in-chinese-social-web-tianya-idUSSHA23163320070820?feedType=RSS&feedName=internetNews

Reuters. (2017, August 11). *Facebook OKs Local Firm's Launch of Moments-like App in China*. Retrieved from Reuters: https://www.reuters.com/article/us-facebook-china-colorful-balloons-idUSKBN1AR28T

Reuters. (2018, August 3). *Google in Talks with Tencent, Others For Cloud Services in China*. Retrieved from Reuters: https://www.reuters.com/article/us-alphabet-cloud-tencent/google-in-talks-with-tencent-others-for-cloud-services-in-china-bbg-idUSKBN1KO2K3

Robertson, R. (2015). Beyond the Discourse of Globalization. *Glocalism: Journal of Culture, Politics and Innovation, 2015*(1).

Rodriguez, S. (2019, May 17). *Facebook's Sheryl Sandberg: Chinese Tech Companies are Also Powerful, and Will Not Be Broken Up*. Retrieved from CNBC: https://www.cnbc.com/2019/05/17/facebooks-sheryl-sandberg-cnbc-interview.html

Rosier, K. (2014). *The Risks of China's Internet Companies on U.S. Stock Exchanges.* Staff Report, U.S.-China Economic and Security Review Commission.

Rowley, J. (2018, Feburary 17). *A Peek Inside Alphabet's Investing Universe*. Retrieved from TechCrunch: https://techcrunch.com/2018/02/17/a-peek-inside-alphabets-investing-universe/

Ruan, L., Knockel, J., Ng, J., & Crete-Nishihata, M. (2016). *One App, Two Systems: How WeChat Uses One Censorship Policy in China and Another Internationally.* Citizen Lab Research Brief No. 84.

Sacks, S. (2018, March 9). *China's Emerging Data Privacy System and GDPR*. Retrieved from Center for Strategic & International Studies: https://www.csis.org/analysis/chinas-emerging-data-privacy-system-and-gdpr

Sassen, S. (2005). When National Territory is Home to the Global: Old Borders to Novel Borderings. *New Political Economy, 10*(4), 523-541.

Schiller, D. (2000). Digital Capitalism: Networking the Global Market System. Cambridge: MIT Press.

Schiller, D. (2005). Poles of Market Growth?: Open Questions about China, Information and the World Economy. *Global Media and Communication, 1*(1), 79-103.

Schiller, D. (2011). Geopolitical-economic Conflict and Network Infrastructures. *Chinese Journal of Communication, 4*(1), 90-107.

Schiller, D. (2014). *Digital Depression: Information Technology and Economic Crisis.* Champaign: University of Illinois Press.

Schiller, D. (2020). Power Under Pressure: Digital Capitalism in Crisis. In R. Nichols, & G. Martinez (Eds.), *Political Economy of Media Industries: Global Transformation and Challenges* (pp. 226-243). New York: Routledge.

Schiller, H. (1969). *Mass Communications and American Empire.* New York: Augustus M. Kelley Publishers.

Schlæger, J., & Jiang, M. (2014). Official Microblogging and Social Management by Local Governments in China. *China Information, 28*(2), 189-213.

Schmidt, E. (2011, September 21). Testimony of Eric Schmidt, Executive Chairman, Google Inc. Before the Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights.

Schneider, F. (2015). China's 'Info-Web': How Beijing Governs Online Political Communication about Japan. *New Media & Society, 18*(11), 2664-2684.

Schroeder, P., & Shakil, I. (2019, July 14). *U.S. proposes barring big tech companies from offering financial services, digital currencies*. Retrieved from Reuters: https://www.reuters.com/article/us-usa-cryptocurrency-bill/u-s-proposes-barring-big-tech-companies-from-offering-financial-services-digital-currencies-idUSKCN1U90NL

Schuetz, M. (2019, June 8). *Here's a Guide to the U.S. Antitrust Case Against Big Tech Companies*. Retrieved from Bloomberg: https://www.bloomberg.com/news/articles/2019-06-08/a-guide-to-the-us-antitrust-case-against-fb-amzn-aapl-googl

Segal, A. (2013, September 26). *Can China Protect Itself From NSA Spying?* Retrieved from The Atlantic: https://www.theatlantic.com/china/archive/2013/09/can-china-protect-itself-from-nsa-spying/280022/

Segal, A. (2017, November 17). *An Update on U.S.-China Cybersecurity Relations*. Retrieved from Council on Foreign Relations: https://www.cfr.org/blog/update-us-china-cybersecurity-relations

Shanghai Daily. (2006, December 15). *Microsoft Widens Net With Baidu Search Engine Alliance*. Retrieved from China Daily: http://www.chinadaily.com.cn/bizchina/2006-12/15/content_759843.htm

Shanghai Daily. (2008, August 7). *Google in Tune With Free Music Downloads*. Retrieved from China Daily: http://www.chinadaily.com.cn/china/2008-08/07/content_6912849.htm

Sheff, D. (1999, December 1). *Click Dynasty*. Retrieved December 1, 2017, from Wired: https://www.wired.com/1999/12/sinanet/

Shen, H. (2016). China and Global Internet Governance: Toward an Alternative Analytical Framework. *Chinese Journal of Communication, 9*(3), 304-324.

Shen, H. (2017). Across the Great (Fire) Wall: China and the Global Internet. Urbana, Illinois, United States of America.

Shen, H. (2018). Building a Digital Silk Road? Situating the Internet in China's Belt and Road Initiative. *International Journal of Communication*, 2683-2701.

Shen, W. (2012). Deconstructing the Myth of Alipay Drama- Repoliticizing Foriegn Investment in the Telecommunications Sector in China. *Telecommunications Policy, 36*, 929-942.

Shepardson, D., & Freifeld, K. (2019, May 15). *China's Huawei, 70 Affiliates Placed on U.S Trade Blacklist*. Retrieved from Reuters: https://www.reuters.com/article/us-usa-china-huaweitech/chinas-huawei-70-affiliates-placed-on-us-trade-blacklist-idUSKCN1SL2W4

Shi, A. (2018). China's Role in Remapping Global Communication. In D. K. Thussu, H. de Burgh, & A. Shi (Eds.), *China's Media Go Global* (pp. 34-51). Abingdon: Routledge.

Shi, A. (2018). China's Role in Remapping Global Communication. In *China's Media Go Global* (pp. 34-51). Abingdon: Routledge.

Shu, J., & Cao, H. (n.d.). *Sina IPO: Jingnei ICP Zhongcheng Huabing*. Retrieved from People's Daily: http://www.people.com.cn/electric/200324/z1010.html

Sina. (2000, March 9). *Wu Jichuan cheng Woguo Jiangzai Sanyuedi Chutai ISP Guanli Banfa*. Retrieved from Sina: http://tech.sina.com.cn/news/internet-china/2000-03-09/19445.shtml

Sina. (2008). *Annual Report 2007.* Sina.

Singel, R., & Kravets, D. (2010, January 15). *Only Google Could Leave China*. Retrieved from https://www.wired.com/2010/01/google-china-engagement/

Sloan, A. (1999, July 13). *Based in Cayman and Traded on Nasdaq: Stock of China.com Raises Many Red Flags*. Retrieved December 1, 2017, from The Washington Post: https://www.washingtonpost.com/archive/business/1999/07/13/based-in-cayman-and-traded-on-nasdaq-stock-of-chinacom-raises-many-red-flags/da5b75c9-2380-434a-a1c7-c97d500809a2/?utm_term=.bc1b65d1fefb

Smythe, D. (1977). Communication: Blindspot of Western Marxism. *Canadian Journal of Political and Social Theory, 1*(3).

Smythe, D. (1981). *Dependency Road: Communications, Capitalism, Consciousness, and Canada.* Norwood, New Jersey: Ablex Publishing Corporation.

Smythe, D. (1994). After Bicycles, What? In D. Smythe, & T. Guback (Ed.), *Counterclockwise: Perspectives on Communication* (pp. 230-44). Boulder: Westview Press.

So, S., & Westland, C. (2009). *Red Wired: China's Internet Reovlution.* Marshall Cavendish Limited.

Sohu. (2000). *IPO Prospectus.* Sohu.

Solon, O., & Siddiqui, S. (2017, September 3). *Forget Wall Street - Silicon Valley is the New Political Power in Washington*. Retrieved from The Guardian: https://www.theguardian.com/technology/2017/sep/03/silicon-valley-politics-lobbying-washington

Soo, Z. (2015, October 31). *Google Co-Founder Brin Says Some Alphabet Business Units May Soon Return to China*. Retrieved from South China Morning Post: https://www.scmp.com/tech/enterprises/article/1874373/google-co-founder-brin-says-some-alphabet-business-units-may-soon

Soo, Z. (2017, Feburary 7). *NetEase May Help Google to Launch App Store, Return to China*. Retrieved from South China Morning Post: https://www.scmp.com/tech/article/2068815/netease-may-help-google-launch-app-store-return-china

Soo, Z. (2018, May 21). *China's Largest Tech Companies have Spent Billions on Investments, But Are They Smart Shoppers?* Retrieved from South China Morning Post: https://www.scmp.com/tech/china-tech/article/2146500/chinas-largest-tech-companies-have-spent-billions-investments-are

Soo, Z., Dai, S., & Yang, Y. (2018, August 3). *Google Could Give Baidu a Serious Run for Its Money in China*. Retrieved from South China Morning Post: https://www.scmp.com/tech/china-tech/article/2158050/google-could-give-baidu-serious-run-its-money-china

South China Morning Post. (2007, June 25). *Kingsoft Seeks to Raise US$100m in HK IPO*. Retrieved from China Daily: http://www.chinadaily.com.cn/bizchina/2007-06/25/content_901522.htm

Spreeuwenberg, K., & Poell, T. (2012). Android and the Political Economy of the Mobile Internet: A Renewal of Open Source Critique. *First Monday, 17*(7).

Srnicek, N. (2016). *Platform Capitalism.* Cambridge: Polity.

Stacey, K., & Politi, J. (2019, June 6). *Google Warns of US National Security Risks from Huawei Ban*. Retrieved from Financial Times: https://www.ft.com/content/3bbb6fec-88c5-11e9-a028-86cea8523dc2

State Council. (1993, August 3). 国务院批转邮电部关于进一步加强电信业务市场管理意见的通知 State Council Approves MPT Proposal Regarding Further Strengthening Regulation of the Telecommunications Market.

State Council. (2019, December 31). 中华人民共和国外商投资法实施条例.

State Council Information Office. (2010). *The Internet in China.* Beijing: Information Office of the State Council of the People's Republic of China.

Stempel, J. (2019, April 29). *Alibaba Pays $250 mln to Settle Lawsuit Over Pre-IPO Counterfeiting Warning*. Retrieved from Reuters: https://www.reuters.com/article/alibaba-

settlement/alibaba-pays-250-mln-to-settle-lawsuit-over-pre-ipo-counterfeiting-warning-idUSL1N22B0F1

Sum, N.-L. (2003). (Re-)Imagining 'Greater China': Silicon Valley and the Strategy of Siliconization. In C. Hughes, & G. Wacker (Eds.), *China and the Internet: Politics of the Digital Leap Forward* (pp. 102-126). London: RoutledgeCurzon.

Sun, P. (2019). Your Order, Their Labor: An Exploration of Algorithms and Laboring on Food Delivery Platforms in China. *Chinese Journal of Communication, 12*(3), 308-323.

Sun, W. (2015). Slow Boat from China: Public Discourses Behind the 'Going Global' Media Policy. *International Journal of Cultural Policy, 21*(4), 400-418.

Sun, Y., & Grimes, S. (2018). *China and the Global Value Chain: Globalization and the Information and Communication Technology Sector.* Abingdon: Routledge.

Sutherland, D. (2003). *China's Large Enterprises and the Challenge of Late Industrialisation.* London: RoutledgeCurzon.

Swisher, K. (2018, October 8). *Zuckerberg: The Recode Interview*. Retrieved from Recode: https://www.vox.com/2018/7/18/17575156/mark-zuckerberg-interview-facebook-recode-kara-swisher

Tai, Z. (2006). *The Internet in China: Cyberspace and Civil Society.* New York: Routledge.

Tan, J., & Tan, A. (2012). Business Under Threat, Technology Under Attack, Ethics Under Fire: The Experience of Google in China. *Journal of Business Ethics, 110*(4), 469-479.

Taneja, H., & Wu, A. X. (2014). Does the Great Firewall Really Isolate the Chinese? Integrating Access Blockage With Cultural Factors to Explain Web User Behavior. *The Information Society, 30*(5), 297-309.

Tang, M. (2019). From “Bringing-in” to “Going-out”: Transnationalizing China’s Internet Capital Through State Policies. *Chinese Journal of Communication*.

Tao, L. (2017, May 18). *WeChat Allows Content Sharing with Banned Facebook, Twitter*. Retrieved from South China Morning Post: https://www.scmp.com/tech/china-tech/article/2094816/wechat-allows-content-sharing-banned-facebook-twitter

Teara, G. (2019, May 29). *The Crunchbase Unicorn Leaderboard is Back, Now With a Record Herd of 452 Unicorns*. Retrieved from TechCrunch: https://techcrunch.com/2019/05/29/the-crunchbase-unicorn-leaderboard-is-back-now-with-a-record-herd-of-452-unicorns/

Teer-Tomaselli, R., Tomaselli, K., & Dludla, M. (2019). Peripheral Capital Goes Global: Naspers, Globalisation and Global Media Contraflow. *Media, Culture & Society*.

Tencent. (2019). 2018 Annual Report.

The Guardian. (2003, March 27). *$200m China Internet Venture Put on Hold*. Retrieved from The Guardian: https://www.theguardian.com/technology/2003/mar/27/business.china

The Information Office of the State Council. (2010, June 8). *White Paper on the Internet in China*. Retrieved from China Daily: https://www.chinadaily.com.cn/china/2010-06/08/content_9950198.htm

Thomas, T. (2010). Google Confronts China's "Three Warfares". *Parameters*, 101-113. Foreign Military Studies Office.

Thompson, C. (2006, April 23). *Google's China Problem (and China's Google Problem)*. Retrieved from The New York Times: https://www.nytimes.com/2006/04/23/magazine/23google.html

Today Commercial News. (2016, July 30). *Jie Chuan Chu Hai: Renmin Ribao Tuozhan Jianada Faxing*. Retrieved from Today Commercial News: http://www.todaycommercialnews.com/canada/15614

Tong, J., & Zuo, L. (2014). Weibo communication and government legitimacy in China: a Computer-assisted Analysis of Weibo Messages on Two 'Mass Incidents'. *Information, Communication & Society, 17*(1), 66-85.

Torch High Technology Industry Development Center. (2013, December 22). Retrieved Feburary 20, 2019, from Huoju Jihua Xiangmu Zongti Gaikuang: http://www.chinatorch.gov.cn/hjjh/gaikuang/201312/b9f2949636604ad1895e27659id3f32c.shtml

Tsui, L. (2007). An Inadequate Metaphor: the Great Firewall and Chinese Internet Censorship. *Global Dialogue, 9*(1-2).

Tuo, Y. (2008, June 16). *Battling Baidu*. Retrieved from China Daily: http://www.chinadaily.com.cn/bizchina/2008-06/16/content_6764395.htm

Tusikov, N. (2019). How US-Made Rules Shape Internet Governance in China. *Internet Policy Review, 8*(2).

U.S Securities and Exchange Commission. (2013, October 1). Retrieved from The Laws that Govern the Securities Industry: https://www.sec.gov/answers/about-lawsshtml.html#secact1933

U.S. Chamber of Commerce. (2014). Competing Interests in China's Competition Law Enfrocement: China's Anti-Monopoly Law Application and the Role of Industrial Policy.

U.S. Department of the Treasury. (2018). *Summary of the Foreign Investment Risk Review Modernization Act of 2018*. Retrieved from U.S. Department of The Treasury: https://www.treasury.gov/resource-center/international/Documents/Summary-of-FIRRMA.pdf

Vaidhyanathan, S. (2011). *The Googlization of Everything: and Why We Should Worry.* Berkeley: University of California Press.

Vaidhyanathan, S. (2018). The Incomplete Political Economy of Social Media. In *The Sage Handbook of Social Media* (pp. 213-229). SAGE Publications.

van Dijck, J. (2013). *The Culture of Connectivity.* Oxford: Oxford University Press.

van Dijck, J., & Poell, T. (2013). Understanding Social Media Logic. *Media and Communication, 1*(1), 2-14.

van Dijck, J., Nieborg, D., & Poell, T. (2019). Reframing Platform Power. *Internet Policy Review, 8*(2).

van Dijck, J., Poell, T., & de Waal, M. (2018). *The Platform Society: Public Values in a Connective World.* New York: Oxford University Press.

van Mens, J. (2018, May 31). *Google China Blog*. Retrieved from Google: https://china.googleblog.com/2018/05/google.html

Vara, V. (2013, October 7). *Twitter and the Evolution of the S-1*. Retrieved from The New Yorker: https://www.newyorker.com/business/currency/twitter-and-the-evolution-of-the-s-1

Varathan, P. (2018, May 16). *China, Where Facebook is Banned, Could Make $5 Billion For the Company This Year*. Retrieved from Quartz: https://qz.com/1279700/china-is-facebooks-second-largest-ad-spender-after-the-us/

Vila Seoane, M. F. (2019). Alibaba's Discourse for the Digital Silk Road: the Electronic World Trade Platform and 'Inclusive Globalization'. *Chinese Journal of Communication*.

Wacker, G. (2003). The Internet and Censorship in China. In C. Hughes, & G. Wacker (Eds.), *China and the Internet: Politics of the Digital Leap Forward.* Abingdon: Routledge.

Wang, J. (2017). "Stir-Frying" Internet Finance: Financialization and the Institutional Role of Financial News in China. *International Journal of Communication, 11*, 581-602.

Wang, J., & Doan, M. A. (2018). The Ant Empired: Fintech Media and Corporate Convergence Within and Beyond Alibaba. *The Political Economy of Communication, 6*(2), 25-37.

Wang, W. Y., & Lobato, R. (2019). Chinese Video Streaming Services in the Context of Global Platform Studies. *Chinese Journal of Communication*.

Watson, F. (2007, June 7). *Google Partners With Chinese Portal Sina*. Retrieved from Search Engine Watch: https://www.searchenginewatch.com/sew/news/2056112/google-partners-with-chinese-portal-sina

Weber, I., & Jia, L. (2003, March). Handing Over China's Internet to the Corporations. *International Institute for Asia Studies Newsletter, 33*, p. 9.

Weber, I., & Jia, L. (2007). Internet and Self-regulation in China: the Cultural Logic of Controlled Commodification. *Media, Culture & Society, 29*(5), 772-789.

Wen, T. (2014). You Can't Sell Your Firm and Own It Too: Disallowing Dual-Class Stock Companies From Listing On The Securities Exchanges. *University of Pennsylvania Law Review, 162*(6), 1495-1516.

Winseck, D. (2000). The Bias of Transnational Communications: the WTO, Wired Cities and Limited Democracy. *the Public, 7*(4), 17-36.

Winseck, D. (2011). Financialization and the 'Crisis of the Media': The Rise and Fall of (Some) Media Conglomerates in Canada. In D. Winseck, Jin, & D. Yong (Eds.), *The Political Economies of Media: The Transformation of the Global Media Industries* (pp. 142-166). London: Bloomsbury Academic.

Winseck, D. (2011). The Political Economies of Media and the Transformation of the Global Media Industries. In *The Political Economies of Media* (pp. 3-48). Bloomsbury Academic.

Winseck, D. (2017). The Geopolitical Economy of the Global Internet Infrastructure. *Journal of Information Policy, 7*, 228-267.

Winseck, D. (2019). Internet Infrastructure and the Persistent Myth of U.S. Hegemony. In *Haggart, Blayne; Henne, Kathryn; Tusikov, Natasha* (pp. 93-120). Cham, Switzerland: Palgrave Macmillan.

Winseck, D., & Pike, R. (2007). *Communication and Empire: Media, Markets, and Globalization.* Durham: Duke University Press.

Wonacott, P. (2001, June 12). *AOL Time Warner and Legend Unveil Web Venture for the Chinese Market*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/SB992254416137890383

Wong, C. H., & Dou, E. (2017, October 29). *Foreign Companies in China Get a New Partner: The Communist Party*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/foreign-companies-in-china-get-a-new-partner-the-communist-party-1509297523

Wong, E. (2010, January 22). *China Rebuffs Clinton on Internet Warning*. Retrieved from The New York Times: https://www.nytimes.com/2010/01/23/world/asia/23diplo.html

Wong, J. (2016, May 22). *Facebook Tweaks Algorithm, Tripping Cheetah Mobile*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/facebook-tweaks-algorithm-tripping-cheetah-mobile-1463738919

Wong, J. (2017, November 9). *Sina Shows Its Disregard for Shareholders*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/sina-shows-its-disregard-for-shareholders-1510206717

Woo, S. (2019, Novemeber 26). *Alibaba Shares Enjoy a Strong Start in Hong Kong*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/a-strong-open-sesame-for-alibaba-in-hong-kong-11574746859

Wright, J. (2014). Regional Variation in Chinese Internet Filtering. *Information, Communication & Society, 17*(1), 121-141.

Wu, A. X. (2012). Hail the Independent Thinker: The Emergence of Public Debate Culture on the Chinese Internet. *International Journal of Communication, 6*, 2220-2244.

Wu, A. X. (2014). Ideological Polarization Over a China-as-Superpower Mind-set: An Exploratory Charting of Belief Systems Among Chinese Internet Users, 2008–2011. *International Journal of Communication, 8*, 2650-2679.

Wu, C. (2014). Inside-Out and Outside-In: the Making of a Transnational Discoursive Alliance in the Struggle for the Future of China. *International Journal of Communication, 8*, 445-465.

Wu, J., & Yun, G. (2018). From Modernization to Neoliberalism? How IT Opinion Leaders Imagine the Information Society. *The International Communication Gazette, 80*(1), 7-29.

Wójcik, D., & Burger, C. (2010). Listing BRICs: Stock Issuers from Brazil, Russia, India, and China in New York, London, and Luxembourg. *Economic Geography, 86*(3), 275-296.

Wójcik, D., & Camilleri, J. (2015). 'Capitalist tools in socialist hands'? China Mobile in Global FInancial Networks. *Transations, 40*(4), 464-478.

Xia, B. (2018). Capital Accumulation and Work in China's Internet Content Industry: Struggling in the Bubble. *The Economic and Labor Relations Review, 29*(4), 501-520.

Xia, B., & Fuchs, C. (2016). *The Financialisation of Digital Capitalism in China.* Westminster Institute for Advanced Studies.

Xin, X. (2017). Financialisation of news in China in the age of the Internet: the case of Xinhuanet. *Media, Culture & Society*.

Xinhua. (2004, December 20). *Beijing Media Prices IPO*. Retrieved from China Daily: http://www.chinadaily.com.cn/english/doc/2004-12/20/content_401759.htm

Xinhua. (2006, December 1). *Everybody Turns to Search Engines*. Retrieved from China Daily: http://www.chinadaily.com.cn/bizchina/2006-12/01/content_748324.htm

Xinhua. (2006, December 18). *Google, Baidu Eye Online Video Business*. Retrieved from China Daily: http://www.chinadaily.com.cn/bizchina/2006-12/18/content_761781_2.htm

Xinhua. (2016, April 11). *Chinese Enterprises Enter 'Go Global' Era 4.0*. Retrieved from The State Council of The People's Republic of China: http://english.gov.cn/news/top_news/2016/04/11/content_281475325205328.htm

Xinhua. (2019, November 27). *Alibaba Makes Robust 'Homecoming' Listing in Hong Kong*. Retrieved from China.org.cn: http://www.china.org.cn/business/2019-11/27/content_75450775.htm

Xinhuanet. (2015, July 29). *Chinese Premier Encourages Sci-Tech Breakthroughs*. Retrieved from Xinhuanet: http://www.xinhuanet.com/english/bilingual/2015-07/29/c_134459066.htm

XinhuaNet. (2018, September 23). *China to Upgrade Mass Entrepreneurship and Innovation*. Retrieved from XinhuaNet: http://www.xinhuanet.com/english/2018-09/06/c_137450275.htm

Xinxi Shibao. (2013, March 5). *MII Unsatisfied with Domestic Mobile OS: Heavy Reliance on Android*. Retrieved from Tencent Technology: https://tech.qq.com/a/20130305/000140.htm

Xu, D., Tang, S., & Guttman, D. (2019). China's Campaign-style Internet Finance Governance: Causes, Effects, and Lessons Learned for New Information-based Approaches to Governance. *Computer Law & Security Review, 35*, 3-14.

Yang, F., & Mueller, M. (2014). Internet Governance in China: a Content Analysis. *Chinese Journal of Communication, 7*(4), 446-465.

Yang, G. (2012). A Chinese Internet? History, Practice, and Globalization. *Chinese Journal of Communication, 5*(1), 49-54.

Yang, G. (2014). The Return of Ideology and the Future of Chinese Internet Policy. *Critical Studies in Media Communication, 31*(2), 109-113.

Yang, G., & Calhoun, C. (2007). Media, Civil Society, and the Rise of a Green Public Sphere in China. *China Information, XXI*(2), 211-236.

Yang, G., & Jiang, M. (2015). The Networked Practice of Online Political Satire in China: Between Ritual and Resistance. *Communication Gazette, 77*(3), 215-231.

Yang, G., & Wu, S. (2017). Remembering Disappeared Websites in China: Passion, Community, and Youth. *New Media & Society*, 1-18.

Yang, X. S. (2018). Soft Power and the Strategic Context for China's 'Media Going Global' Policy. In D. K. Thussu, H. de Burgh, & A. Shi (Eds.), *China's Media Go Global* (pp. 79-100). Abingdon: Routledge.

Yang, Y. (2018, June 1). *Bytedance and Tencent Legal Battle Escalates*. Retrieved from Financial Times: https://www.ft.com/content/13f5ceb2-5f18-11e8-9334-2218e7146b04

Yang, Y. (2019, March 31). *Google Blocks China Adverts for Sites that Help Bypass Censorship*. Retrieved from Financial Times: https://www.ft.com/content/1091cf20-5209-11e9-b401-8d9ef1626294

Ye, P., & Albornoz, L. (2018). Chinese Media 'Going Out' in Spansih Speaking Countries: The Case of CGTN-Español. *Westminster Papers in Communication and Culture, 13*(1), 81-97.
Ye, T., & Lai, Y. (2010, April 5). *Questions Follow Google Exit*. Retrieved from China Daily.
Yeh, A. (2006, June 23). *Google Disposes of Baidu Stake*. Retrieved from Financial Times: https://www.ft.com/content/6756285a-026d-11db-a141-0000779e2340
Yeo, S. (2016). Geopolitics of Search: Google vs. China? *Media, Culture & Society, 38*(4), 591-605.
Yeung, H. W.-C., & Liu, W. (2008). Globalizing China: The Rise of Mainland Firms in the Global Economy. *Eurasian Geography and Economics, 49*(1), 57-86.
Yin, Q., & Li, X. (2019). Exploring the Roles of Government Involvement and Institutional Environments in the Internationalization of Chinese Internet Companies. *Chinese Journal of Communication*.
Yu, H. (2019, January 21). *Google and Facebook: the Real Reason They Should be Broken Up is China*. Retrieved from The Conversation: https://theconversation.com/google-and-facebook-the-real-reason-they-should-be-broken-up-is-china-110108
Yuan, L. (2017, October 11). *Beijing Pushes for a Direct Hand in China's Big Tech FIrms*. Retrieved from The Wall Street Journal: https://www.wsj.com/articles/beijing-pushes-for-a-direct-hand-in-chinas-big-tech-firms-1507758314
ZDNet China. (2007, January 5). *Google Xieshou China Mobile Jinjun Zhongguo Shouji Sousuo ShiChang*. Retrieved from Sina: http://tech.sina.com.cn/i/2007-01-05/10211320716.shtml
Zeng, J., Stevens, T., & Chen, Y. (2017). China's Solution to Global Cyber Governance: Unpacking the Domestic Discourse of "Internet Sovereignty". *Politics & Policy, 45*(3), 432-464.
Zhang, D. (2018). The Concept of 'Community of Common Destiny' in China's Diplomacy: Meaning, Motives and Implications. *Asia & the Pacific Policy Studies, 5*(2), 196-207.
Zhang, E., & Jia, D. (2019, April 3). *China's New Tech Board Gets First Dual-Class Applicant*. Retrieved from Caixin: https://www.caixinglobal.com/2019-04-03/chinas-new-tech-board-gets-first-dual-class-applicant-101400331.html
Zhang, H. (2010, January 25). *Remarks Harmful to Sino-U.S Ties*. Retrieved from China Daily: http://www.chinadaily.com.cn/world/2010-01/25/content_9370457.htm
Zhang, J. (2008). China's Dynamic Industrial Sector: The Internet Industry. *Eurasian Geography and Economics, 5*, 549-568.
Zhang, J. (2019, January 27). *China Created a Unicorn Every 3.8 Days in 2018*. Retrieved from South China Morning Post: https://www.scmp.com/tech/start-ups/article/2183717/china-created-unicorn-every-38-days-2018
Zhang, L. (2013). The Google-China Dispute: The Chinese National Narrative and Rhetorical Legitimation of the Chinese Communist Party. *Rhetoric Review, 32*(4), 455-472.
Zhang, L. (2020). When Platform Capitalism Meets Petty Capitalism in China: Alibaba and an Integrated Approach to Platformization. *International Journal of Communication, 14*, 114-134.
Zhang, L. (2020). When Platform Capitalism Meets Petty Capitalism in China: Alibaba and an Integrated Approach to Platformization. *International Journal of Communication, 14*, 114-134.

Zhang, L., & Zhang, W. (2018). The Impact of Monetization on the Public Functions of Weibo. *Global Media and China, 3*(3), 195-212.

Zhang, Y., & Osawa, J. (2019, Feburary 27). *Google's Ad Sales From China Are Booming*. Retrieved from The Information: https://www.theinformation.com/articles/googles-ad-sales-from-china-are-booming

Zhao, R. (2019, April 26). *Baidu and ByteDance Launch Tit-for-Tat Lawsuit War*. Retrieved from Caixin Global: https://www.caixinglobal.com/2019-04-26/baidu-and-bytedance-launch-tit-for-tat-lawsuit-war-101409051.html

Zhao, Y. (1998). *Media, Market and Democracy in China: Between the Party Line and the Bottom Line.* Urbana and Chicago: University of Illinois Press.

Zhao, Y. (2000). Caught in the Web: the Public Interest and Battle for Control of China's Information Superhighway. *info, 2*(1), 41-66.

Zhao, Y. (2003). 'Enter the World': Neo-Liberal Globalization, the Dream for a Strong Nation, and Chinese Press Disourses on the WTO. In C.-C. Lee (Ed.), *Chinese Media, Global Contexts* (pp. 32-56). London: RoutledgeCurzon.

Zhao, Y. (2003). Transnational Capital, the Chinese State, and China's Communication Industries in a Fractured Society. *the public, 4*, 53-74.

Zhao, Y. (2004). The State, the Market, and Media in China. In P. Thomas, & Z. Nain (Eds.), *Who Owns the Media: Global Trends and Local Resistance* (pp. 179-212). Penang: Southbound Press and Zed Books.

Zhao, Y. (2007). Neoliberal Strategies, Socialist Legacies: Communication and State Transformation in China. In P. Chakravartty, & Y. Zhao (Eds.), *Global Communications: Toward a Transcultural Political Economy* (pp. 23-50). Maryland: Rowman & Littlefield.

Zhao, Y. (2010). China's Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies, and Uncertainties. *Chinese Journal of Communication, 3*(3), 266-289.

Zhao, Y. (2014). Communication, Crisis, and Global Power Shifts: An Introduction. *International Journal of Communication, 8*, 275-300.

Zhao, Y. (2014). The Life and Times of "Chimerica": Global Press Discourses on U.S.–China Economic Integration, Financial Crisis, and Power Shifts. *International Journal of Communication, 8*, 419-444.

Zhao, Y., & Schiller, D. (2001). Dances with Wolves? China's Integration into Digital Capitalism. *Info, 3*(2), 137-151.

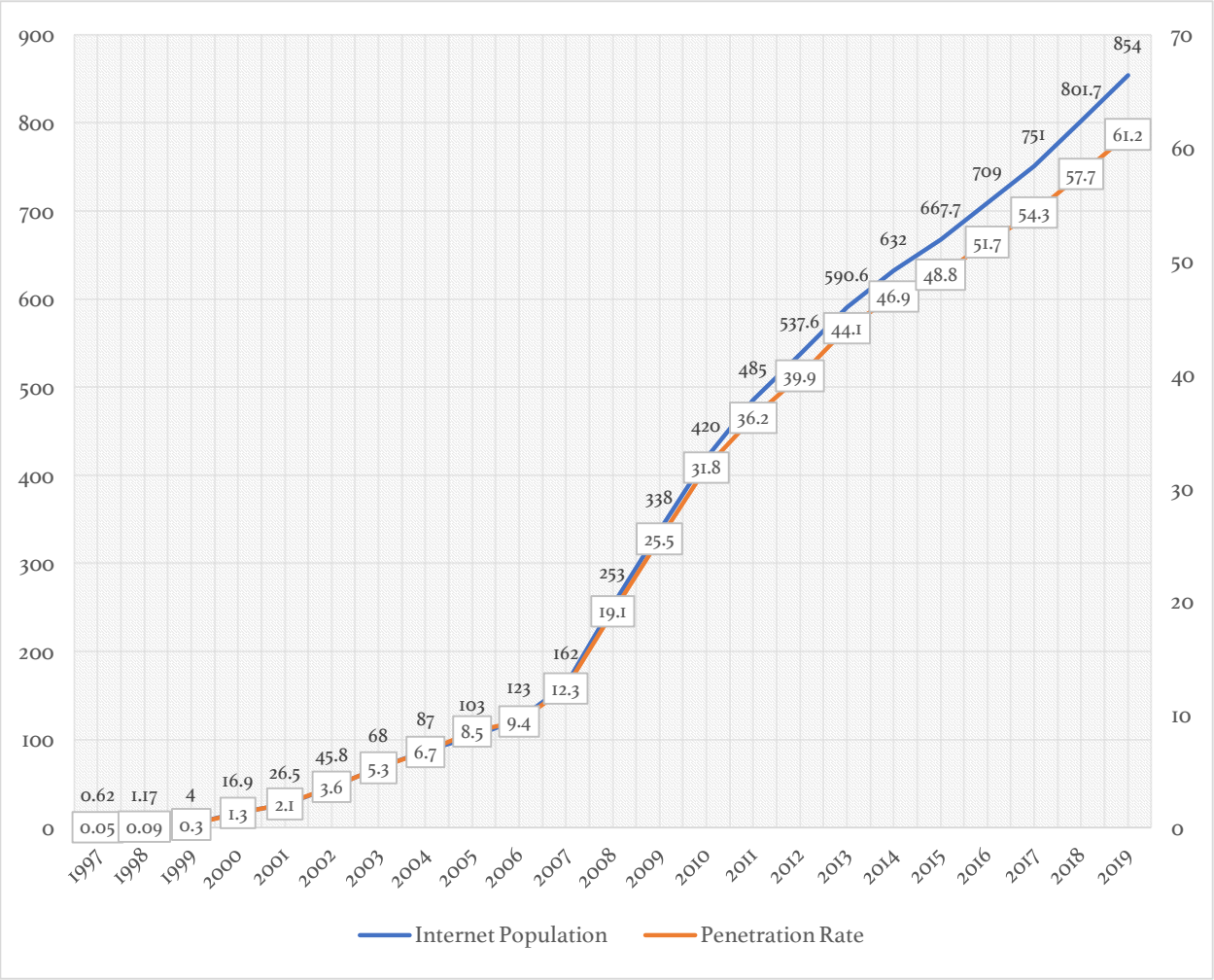
Zheng, S. (2019, August 21). *How China is Spending Big to Push Its Official Message Through Facebook and Twitter*. Retrieved from South China Morning Post: https://www.scmp.com/news/china/diplomacy/article/3023782/how-china-spending-big-push-its-official-message-through

Zhong, R., Mozur, P., & Zhao, I. (2018, April 12). *Horns Honk, and Censors in China Get a Headache*. Retrieved from The New York Times: https://www.nytimes.com/2018/04/12/business/china-bytedance-duanzi-censor.html?_ga=2.12156535.2139378403.1552684723-1734298156.1499702040

Zittrain, J., & Edelman, B. (2003). Internet Filtering in China. *IEEE Internet Computing, 7*(2), 70-77.

Appendices

Appendix A Internet Population Growth in China (1997-2019)



Appendix B Chinese Internet Regulations

Type of Document	Date	Title	Government Agency
Laws	2000-12-28	Decision of the Standing Committee of the National People's Congress on Preserving Computer Network Security	Standing Committee of the National People's Congress
	2012-12-28	Decision of the Standing Committee of the National People's Congress on Strengthening Information Protection on Networks	Standing Committee of the National People's Congress
	2004-08-28	Law of the People's Republic of China on Electronic Signature	Standing Committee of the National People's Congress
	2018-09-01	E-Commerce Law of the People's Republic of China	Standing Committee of the National People's Congress
	2016-11-07	Cybersecurity Law of the People's Republic of China	Standing Committee of the National People's Congress
Administrative Laws	2014-08-28	Notice of the State Council on Changing the Cyberspace Administration of China with the Content Management of Information on the Internet	State Council
	2013-02-08	Regulation on the Protection of the Right to Communicate Works to the Public over Information Network	State Council
	2002-08-04	Regulation on the Administration of Business Sites of Internet Access Services	State Council
	2013-01-30	Regulation on Computers Software Protection	State Council
	2016-02-06	Provisions on the Administration of Foreign-funded Telecommunications Enterprises	State Council
	2000-09-30	Administrative Measures for Internet Information Services	State Council
	2000-09-20	Regulation on Telecommunication of the People's Republic of China	State Council
	1997-12-30	Measures for Security Protection Administration of the International Networking of Computer Information Networks	Ministry of Public Security
	1996-02-01	Provisional Regulations of the People's Republic of China on the Management of International Networking of Computer Information Networks	State Council
	1994-02-18	Regulations of the People's Republic of China for Safety Protection of Computer Information Systems	State Council
Department Rules	2008-01-31	Administrative Provisions on Internet Audio-Visual Program Service	State Broadcasting, Film & TV Administration Ministry of Information Industry
	2004-07-06	Measures for the Administration of the Publication of Audio-Visual Program through the Internet or Other Information Network	State Broadcasting, Film & TV Administration
	2003-01-05	Interim Provisions on the Administration of Internet Culture	Ministry of Culture
	2012-03-15	Several Provisions on Regulating the Market Order of Internet Information Services	Ministry of Industry & Information Technology

	2013-09-01	Provisions on Protecting the Personal Information of Telecommunications and Internet Users	Ministry of Industry & Information Technology
	2009-01-06	Provisions on Administration of Provisions of Financial Information Services in China by Foreign Institutions	State Council Information Office Ministry of Commerce State Administration for Industry and Commerce
	2017-02-05	Provisions for the Administration of Internet News Information Services	Ministry of Information Industry, State Council Information Office
	2017-08-24	Measures for the Administration of Internet Domain Names	Ministry of Industry & Information Technology
	In consultation	Provisions on the Administration of Block Chain Information Services	Cyberspace Administration of China
	2017-05-02	Provision on the Administrative Law Enforcement Procedures for Internet Information Content	Cyberspace Administration of China
Legal Interpretations	2010-02-02	Interpretation of the Supreme People's Court and the Supreme People's Procuratorate of Several Issues on the Specific Application of Law in the Handling of Criminal Cases about Producing, Publishing, Selling and Disseminating Pornographic Electronic Information via the Internet, Mobile Communication Terminals and Sound Message Stations	Supreme People's Court, Supreme People's Procuratorate
	2004-09-06	Interpretation of the Supreme People's Court and the Supreme People's Procuratorate of Several Issues on the Specific Application of Law in the Handling of Criminal Cases about Producing, Publishing, Selling and Disseminating Pornographic Electronic Information via the Internet, Mobile Communication Terminals and Sound Message Stations	Supreme People's Court, Supreme People's Procuratorate
	2012-12-17	Provisions of Supreme People's Court on Several Issues Concerning the Application of Law in Hearing Civil Dispute Cases Involving Infringement of the Right of Dissemination on Information Networks	Supreme People's Court
	2014-08-21	Interpretation of the Supreme People's Court and the Supreme People's Procuratorate of Several Issues Concerning the Specific Application of Law in the Handling of Defamation Through Information Networks and Other Criminal Cases	Supreme People's Court, Supreme People's Procuratorate
	2013-09-06	Provisions of the Supreme People's Court on Several Issues concerning the Application of Law in the Trial of Cases involving Civil Disputes over Infringements upon Personal Rights and Interests through Information Networks	Supreme People's Court
Regulatory Documents	2014-08-07	Interim Provisions on the Administration of the Development of Public Information Services Provided Through Instant Messaging Tools	State Internet Information Office
	2015-02-04	Provisions on the Administration of Account Names of Internet Users	State Internet Information Office

	2015-03-01	Provisions on the Administration of the Release of Information on Dangerous Goods over the Internet	Ministry of Public Security Cyberspace Administration of China; Ministry of Industry and Information Technology
	2015-04-28	Provision on the Interview of Entities Providing Internet News Information Services	State Internet Information Office
	2016-06-25	Provisions on the Administration of Internet Information Search Services	State Internet Information Office
	2016-06-28	Provisions on the Administration of Mobile Internet Applications Information Services	State Internet Information Office
	2016-12-01	Provisions on the Administration of Internet Live-Streaming Services	State Internet Information Office
	2017-01-06	Detailed Rules for the Licensed Management of Internet News Information Services	State Internet Information Office
	2017-01-10	Provisions on the Administration of Internet Forum and Community Services	State Internet Information Office
	2017-01-10	Notice of the Cyberspace Administration of China on Issuing the Provisions on the Administration of Internet Comments Posting Services	State Internet Information Office
	2017-10-08	Provisions on the Administration of Internet Group Information Services	State Internet Information Office
	2017-10-08	Provisions on the Administration of Internet User Public Account Information Services	Cyberspace Administration of China
	2017-12-01	Provisions on the Administration of the Safety Assessment of New Technologies and Applications for Internet News Information Services	State Internet Information Office
	2017-12-01	Measures for the Administration of Content Management Practitioners Working for Internet News Information Services Providers	Cyberspace Administration of China
	2018-03-20	Provisions on the Administration of Microblog Information Services	Cyberspace Administration of China