Queering the Digital Divide: Contextualizing 2SLGBTQ+ Older Adults' Experiences with Accessing Remote Service Provisions in Ontario

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Abstract

The COVID-19 pandemic reshaped Western societies' relationship with Information and Communication Technology (ICT). Stay-at-home mandates in Ontario increased many people's everyone's reliance on technology to work, socialize, and access services. In Western societies that are dominated by digital technologies, digital exclusion can have detrimental impacts on an individual's health and well-being (Seifert et al. "Perceived Exclusion" 6). Unlike populations under the age of 55, older adults who lack digital literacy skills or who are digitally disconnected become socially excluded from an entire virtual universe (Seifert et al. "Double Burden" e99). Digital citizenship scholarship focused on the general older adult population in North America indicates that they lack the skills or devices needed to fully utilize the Internet (Perrin and Atske, Nimrod 159, Quan-Haase et al. 206). I am concerned with how equity-deserving groups, like 2SLGBTQ+ older adults, encounter unique challenges with accessing and utilizing ICT. Through a mixed-method quantitative and qualitative online study, I aim to contextualize how 2SLGBTQ+ older adults' experiences with new technologies are similar or different from their heterosexual counterparts.

This dissertation identifies and unpacks the struggles 2SLGBTQ+ older adults faced during the pandemic with using ICT to better understand how service providers could have addressed digital divide gaps amongst this population during and beyond stay-at-home mandates. Exploring the intersections of queerness, aging, and technology and putting them into conversation with digital divide scholarship offered a nuanced look at how the internet is utilized by 2SLGBTQ+ older adults. This study explored the challenges rainbow seniors experienced with accessing social service provisions during the pandemic. Using participatory action research, I collaborated with

2SLGBTQ+ organizational leaders and activists to develop a comprehensive needs assessment that aimed to understand how rainbow seniors' experiences with the internet differ from those of their heterosexual counterparts.

Acknowledgments

I am thankful for the community advisory committee members who reviewed and provided feedback on the online survey questionnaire. To the rainbow seniors who participated in this research, I am deeply thankful for your participation and survey responses. Your contributions assisted me with identifying possible strategies for mitigating digital divide barriers. Your contributions were significant for informing how online service providers can improve the online services you rely on in your day-to-day lives. Additionally, the guidance I received from the QDD advisory committee helped me refine my questionnaire and recruitment process. I am forever grateful. A special thank you to leZlie lee kam for supporting my academic journey and teaching me what it means to be an active community activist and researcher. Your advice and wisdom over the last seven years have assisted me in producing work that aims to improve the lives of rainbow seniors.

My academic journey at York University commenced 12 years ago. Little did I know that it would lead me to pursue a Ph.D.. I am grateful for my family, friends, and committee members for their unwavering support. I extend my heartfelt thanks to Andrea O-Reilly, Frances Latchford, and Nick Mulé for their feedback, guidance, and support throughout the dissertation process. Your involvement was integral to the successful completion of my dissertation. Thank you to Celeta Irving, Sue Sbrizzi, and Yemi Adebisi for your continued assistance with administrative tasks. Navigating these administrative processes would have been more challenging without your knowledge and support.

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Preface

> Stephanie has been identified as a student with a learning disability. A psychoeducational assessment was conducted in January 1998 by psychology staff at York Region District School Board. The result of the evaluation revealed average capabilities with weakness noted in the area of perceptual organization/visual reasoning, auditory analysis, and fine motor skills (2008 assessment).

In 1998, I was diagnosed with a learning impairment. I did not know what a learning impairment was or the effect it would have on my life. A learning impairment is a neurological disorder that impacts the brain's ability to send, receive, and process information. In elementary school, I had a disempowering educational experience because I was discouraged from being confident in my learning abilities. Teachers and support workers constantly micro-managing my learning processes left me frustrated. Medical and social disability discourses socially construct people with disabilities as being inferior, dependent, weak, and even infant-like in comparison to non-disabled people (Wendell 113). By the time I entered high school I was learning at a grade 6 level. My psychological assessment from that time states “An In-School Team (IST) meeting summary report indicated that Stephanie appears to be working at a grade ⅝ range both for reading and written language. Math skills were thought to be at approximately the grade 6/7 level” (2004 Assessment). This report evaluated my intellectual abilities and was used to transition me to the high school's disability services. In grade eight, as I prepared for high school, my mother and I were required to meet with the Special Needs Coordinator at my elementary school to discuss this transition. At this meeting, I was asked what I wanted to do after high school. I told her I wanted to become a teacher. She turned to my mother and explained that my intellectual abilities were limited. This professional encouraged my mother to be realistic about my career goals, stating I

would be lucky to get into college let alone university. I never had my sights set on doing a Ph.D. but I was certain I would attend university.

In grade 11, I finished high school. This was a year earlier than peers my age. At the age of 16 I was accepted into the Social Service Worker (SSW) program at Seneca College. As a white, cisgender, Jewish, straight-passing, but queer identifying woman living in Thornhill, Ontario, I had access to many resources and support networks that helped me thrive in academia. At the age of 16, I secured a full-time job at Softmoc Shoes which provided me with a stable income and discounts on footwear during college. With this support, I was determined to get the academic credentials needed to attend York University upon completing my SSW diploma. During college, at the age of 19, I was diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). This was the first time I had an official diagnosis of my learning disability. This improved my ability to identify the strategies, tools, and resources I needed to address and mitigate day-to-day obstacles.

In 2011, I received my acceptance letter to York University. I enrolled in the Sexuality Studies Program and registered with Student Disability Services. Initially, I wanted to pursue a degree in education, however, I was not prepared to take both a major and minor simultaneously. This led me to pursue a Sexuality Studies Degree. I had no idea what I would do with a Sexuality Studies Degree and I approached the program as an opportunity to explore my options. I quickly fell in love with the program content and felt supported by the faculty as a student with a disability. These factors contributed to my decision to stay in the Sexuality Studies Program. At times, I feared that the program would not provide me the skills needed for a professional career. I was primarily working retail during my undergraduate degree, but for three months I worked in a long-term care (LTC) home as a receptionist. This experience led me to my research interests.

During my teenage years, I did not appreciate the lived experiences and wisdom older adults possessed. Older adults are assumed to be frail, dependent, asexual, undesirable, and lacking knowledge on new technologies. They are depicted in the media as a burden on younger generations. These dominant social assumptions about their identities heavily influenced my beliefs about aging and sexuality. However, taking undergraduate courses that focused on women and aging during my years in undergraduate studies sparked my curiosity to debunk myths about aging and sexuality. Additionally, in 2012 I briefly worked at an independent assistive living home in Thornhill, Ontario. During my time there, I observed discussions about sexuality that heavily focused on “containing and stopping" intimate behaviour between residents. It was as if being a sexual being was abnormal after a certain age. Upon leaving this role, I searched for positive portrayals of older adults, and rainbow seniors. Rainbow seniors is another term used to describe 2SLGBTQ+ older adults. This term was introduced to me by leZlie lee kam, who is a rainbow senior activist and community member here in Toronto. The term queer seniors or queer older adults has been used in my past publications; however, the term queer has a history of being used as a derogatory slur towards 2SLGBTQ+ communities. Rainbow seniors grew up during a time when the term queer was used to pathologize, criminalize, and dehumanize their existence. While the term has been reclaimed by some 2SLGBTQ+ communities, it is not universally accepted by many older 2SLGBTQ+ people. I do not have an academic source to support this claim rather I have been made aware of differing perspectives on the term queer during community discussions that involved rainbow seniors. Additionally, rainbow seniors have critiqued my use of the term and have personally explained to me why it is viewed as derogatory. As a result, I have chosen to limit my use of the term queer seniors and will prioritize using rainbow seniors in this dissertation.

In recent years, ageist stereotypes and misconceptions have been challenged in the media, with more Television series, movies, and documentaries being released that view aging in a positive light. TV shows and movies started to portray older women and queer folks positively. This includes TV series like *Grace and Frankie* (2015) and *Glamorous* (2023) on Netflix and movies like *Away from Her* (2006) and *Book Club* (2018). While these portrayals primarily feature white cisgender women, they do highlight the complexities and joys of aging. Representation of gender and sexual diversity has appeared in shows like *1 Queen 5 Queers* (2021) which has featured rainbow seniors on their show, including my close friend leZlie lee kam. Documentaries like *Take Me to Prom* (2019) and *Supporting Ourselves* (2023) also share intimate stories and the histories of rainbow seniors in Toronto.

In my fifth year of my undergrad studies, Professor Frances Latchford advised me to explore my career options by volunteering for organizations that aligned with my interests and values. Her advice encouraged me to pursue volunteer roles at 2SLGBTQ+ non-profit organizations. In March 2014, I began volunteering at Egale Canada, and shortly after I was hired on a short-term Canada Summer Jobs contract as their Event Coordinator Assistant. Canada Summer Jobs is a federally funded program that supports people ages 15-30 in gaining meaningful work experiences (Canada Summer Jobs). This opportunity sparked my interest in pursuing a career in the non-profit sector. I continued to volunteer with Egale Canada for several years and sat on the National Seniors Advisory Committee up until it was disbanded in Summer 2020. My undergraduate degree, combined with my non-profit experience, provided me with the knowledge needed to pursue my Master's Degree with a research focus on rainbow seniors' experiences in long-term care.

I was accepted into the Gender Studies program at Queens University in 2016. My major research paper (MRP) was titled, “Examining Aged Care: An In-Depth Analysis of the Suppression of Gender and Sexuality in North American Assisted Living Facilities” (2017). This research reviewed and analyzed the barriers that LGBT elders experience with accessing care and it used an intersectional approach to understand the lived experiences of LGBT older adults living in assisted living facilities (ALF). I used the acronym LGBT in this research because at this time queer aging scholarship heavily focused on white, cisgender older adults in the United States. Scholarship on 2-Spirit, Black, Trans, and non-binary older adults in Canada was scarce in 2016. I used long-term care (LTC) as an umbrella term for ALF to explore LGBT elders' experiences living in privately run retirement communities and do so herein too. This research was significant in providing me with an understanding of how queerness and aging intersect to shape individual experiences with healthcare systems in North America.

While I was completing my Master’s degree, I joined the Toronto Senior Pride Network (SPN). The SPN is a “volunteer association of intergenerational individuals, organizations and community groups that share an interest and commitment to expanding programs and services for older 2-Spirit, lesbian, gay, bisexual, transgender, transsexual, queer and intersex people in the City of Toronto" (Senior Pride Network). Joining the SPN allowed me to connect with 2SLGBTQ+ older adults in Toronto. They welcomed me into their advocacy group, which allowed me to learn about how the challenges they faced differed from those experienced by younger 2SLGBTQ+ people in Canada. I dedicated my time to supporting their initiatives and I continue to be a member of the SPN. As I nurtured my relationships in the SPN, I began asking for feedback on my initial Ph.D. research ideas. The SPN members supported both my Master’s and Ph.D. research by

providing their perspectives on my methodological approach and on how my work can be mobilized to address challenges 2SLGBTQ+ older adults faced in their day-to-day lives.

In 2017, shortly after joining the SPN, I met leZlie lee kam. She invited me to be involved in the first Intergenerational Senior Pride Event at The 519 Community Centre in downtown Toronto. leZlie is a queer activist with 47 years of experience fighting for 2SLGBTQ+ rights. She is a "world majority, brown, Trini, Carib, Indo, Chinese, Callaloo, queer, DYKE, differently-abled community activist, and elder" (OutoftheCloset). leZlie is highly involved in several community initiatives that aim to improve access to services and resources for rainbow seniors. When leZlie and I met I was completing my Master's degree. I would travel from Kingston to Toronto bi-weekly to assist leZlie in planning the Intergenerational Seniors Pride Event. In June 2017, we hosted the event at The 519. Since then, I have been on the planning committee for several SPN events, including an annual event for International Day of Older Persons. I am incredibly grateful for the connections I have made because of the SPN and am proud to call many of them my colleagues, friends, mentors, and chosen family.

When I started my Ph.D. at York University in 2017, I intended to continue my Master's Degree research which focused on 2SLGBTQ+ older adults' experiences with LTC in Canada. There are two events that significantly informed my academic progress and changed my research trajectory: the Canadian Union of Public Employees (CUPE) 3903 strike in 2018 and the COVID-19 pandemic in 2020. The strike included York University Teaching Assistants, Contract Faculty, and Graduate Assistants. It lasted for five months. During that time, I was unable to progress through my course work and it delayed my ability to move onto comprehensive exams in a timely fashion. At the time, I considered this a mild inconvenience that was manageable and that did not

have a major impact on my research objectives. However, the COVID-19 pandemic had a much larger impact on my dissertation work and mental well-being. It heightened my anxiety, increased stress, and fueled imposter syndrome. I was unable to write for the first three months of the pandemic and had to come to terms with the fact that pursuing research on 2SLGBTQ+ older adults' experiences with LTC would not be possible during Ontario stay-at-home mandates. During this difficult time, I chose to focus on self-care, took time away from writing, and embraced new creative outlets like painting. Making abstract artwork supported me during this difficult time, allowed me to process the trauma response I was experiencing during stay-at-home mandates, and opened my eyes to new possibilities. Asking new questions about the struggles rainbow seniors may be experiencing during the pandemic led me to a new research topic, focused on the challenges 2SLGBTQ+ older adults faced with accessing online services during the pandemic. While my approach is informed by a queer perspective and utilizes queer theory to a limited degree, this research draws predominantly on feminist theories such as intersectionality, social determinants of health, social constructionism and intergenerational aging, which better enables an intersectional and materialist analysis of the obstacles that seniors affected by the digital divide experience. I put these theoretical perspectives into conversation with digital citizenship scholarship to contextualize how stay-at-home mandates made people reliant on digital technologies. Furthermore, throughout my dissertation, I often incorporate my own experiences with advocating for and supporting rainbow seniors with their technological needs. My objective is to educate others on how to understand the complexities of digital inclusion and exclusion along with how to address and mitigate digital divide barriers.

As a young, white, cisgender, queer woman from a Jewish family who settled in Canada, I acknowledge the significance of working with rainbow seniors on this research. Conducting research on rainbow seniors requires their input and support because as a woman in my 30s, I do not personally experience the challenges rainbow seniors face. Involving 2SLGBTQ+ organizations and community members in guiding my research and advocacy work is a necessary step for developing research that is beneficial to our communities. I embraced the invaluable suggestions and guidance from rainbow seniors to create a project that will improve their lives. I say communities instead of community because 2SLGBTQ+ groups in Canada are diverse and our hardships are not monolithic. Race, class, gender, sexuality, age, disability, and nationality shape our relationships with heteronormative and cisnormative social systems that value and reward non-2SLGBTQ+ people. I use an intergenerational and intersectional lens to be mindful of the power dynamics between my participants and myself, recognizing that this research can have real impact on their daily lives. I am committed to being self-reflexive with any concerns raised by 2SLGBTQ+ community members about my research methodologies or practices (Davis et al. 93).

Chapter One

> The things we say and do through the internet have permeated our lives in unprecedented ways is now a cliché that needs not repeating. That this has happened practically throughout the world despite a digital divide is also accepted. That both corporations and states have become heavily invested in harvesting, assembling, and storing data – for profits or security – about things we say and do through the internet is practically the strongest evidence of the significance attached to our connected digital lives (Isin et al. 1).

Introduction

In Fall 2020, I was visiting a local medical laboratory, Dynacare. Dynacare is a Canadian healthcare provider that collects and transports specimens and other tests for patients and healthcare professionals (Dynacare). It was the peak of the global pandemic and lockdowns were in full force. Prior to visiting the laboratory, I had to complete the online check-in process which included a Covid-19 screening form. For me, this process was familiar and easy to navigate. When I arrived at the office, I sat in the waiting room to be called for my blood work to be completed. While waiting, I overheard a conversation in the Dynacare office between a patient and a nurse. The patient was an older gentleman. He was at the front desk, trying to check in for lab tests. The nurse asked him to use the online check-in system to book an appointment. He explained to her that he had a phone but was unable to use the online system and requested further support for booking an appointment. She was the only one in the office at this time. She asked if he had a family member who could assist him, to which he responded "No". I am not sure how tech-savvy this gentleman was, but from what I witnessed he was not familiar with the online check-in system. He was adamant with the staff that it was the first time he had heard of the online check-in system and that he had not been using the Dynacare online platform on his cellphone. Overhearing this interaction alerted me to some of the challenges older adults might face with adapting to

technological advancements during the pandemic. This was one of the first scenarios that sparked my interest in exploring older adults' experiences with the digital divide in Canada.

Pre-pandemic, my research examined the barriers Canadian Two-Spirit, lesbian, gay, bisexual, trans, and queer (2SLGBTQ+) older adults experienced with long-term care (LTC). Stay-at-home mandates in 2020 removed the possibility of me conducting in-person interviews with 2SLGBTQ+ LTC residents. LTC facilities enacted strict social distancing and visitation policies that limited who could visit residents (Jonsson "Social Isolation" 1). I quickly became curious about how 2SLGBTQ+ older adults were limited or completely excluded in the online world more broadly. Switching my research focus from the barriers 2SLGBTQ+ seniors face with accessing healthcare to their experiences with accessing online service provisions, led to a new pathway to explore how rainbow seniors' relationships with information and communication technologies (ICT) differed from heterosexual, cisgender, older adults. ICT are products that "enable information storage, retrieval, manipulation, transmission, or reception in digital form, can improve access to goods and services; generate and maintain a safe and secure independent living environment; facilitate self-management of age-related challenges; and enable social connectivity and participation" (Fang, M. et al. "Exploring Privilege" e1). I had a general awareness of the fact that older adults tended to be less likely to use ICT but did not fully grasp the extent of their disconnection from the digital world. In March 2020, government social distancing mandates were enacted to protect citizens from the novel COVID-19 virus. Overnight, the world became reliant on ICT to connect with family, friends, medical providers, educational services, work, e-commerce, and much more. This research is an inquiry into what skills and tools are needed to

become a digital citizen. My objective is to better understand how rainbow seniors' experiences with the digital divide are similar to or are different from their heterosexual counterparts.

As life shifted exclusively to remote work and social relations it quickly became apparent that high-speed internet, an updated computer, and knowledge about the digital landscape was, and continues to be a privilege. This research was carried out when the world faced a catastrophic global event that caused global lockdowns, social distancing mandates, and vaccine passports. I chose to develop a study that could be conducted during Ontario's stay-at-home mandates and during a time when the Internet was our primary tool for staying socially connected. As a result, this work aimed to capture and speak to the challenges older gender and sexual minorities faced during the pandemic. I argue that the COVID-19 pandemic combined with Ontario stay-at-home mandates created conditions that heightened digital divide barriers for systemically marginalized people who did not have the skills, knowledge, or tools to participate in the online world. More specifically, my analysis focuses on the absence of Two-Spirit, lesbian, gay, bisexual, trans, and queer (2SLGBTQ+) older adults from scholarship that examines aging, technology, and digital divide barriers. Much of the current literature on aging and technology uses a monolithic approach to understand older adults' experiences with new technologies (Lagacé et al. 7-8; Seifert et al. "Double Burden" e100; Abdelaal et al. 26). There are some scholars that do use an intersectional framework to examine the digital divide, but they are relatively few in comparison to those who focus research on cisgender and heteronormative older adults (Fang, Y, et al. 1516; Fang, M. et al. "Tech Access" 2; Mock et al. 536). For this dissertation, I will produce an intersectional analysis that explores how the first global pandemic during the digital era marginalized older 2SLGBTQ+ people because of their race, class, sex, gender, sexuality, age, and (dis)ability. In my opinion,

younger 2SLGBTQ+ people are privileged with more access to and knowledge of ICT because they grew up in the digital era. By ignoring the ICT needs of rainbow seniors, we will inadvertently leave behind the same people who fought for 2SLGBTQ+ human rights in Canada.

This research is incredibly timely because it will address ICT disparities amongst 2SLGBTQ+ older adults and will educate younger generations on how they can better support older peers. The following questions are answered throughout this dissertation: What is the significance of putting digital divide scholarship into conversation with feminist theory and to a lesser extent queer theory? How were rainbow seniors excluded from using and benefiting from ICT during the pandemic? How were digital inequalities and inequities heightened during Ontario's stay-at-home mandates for rainbow seniors? How did the internet habits of rainbow seniors differ from their cisgender, heterosexual counterparts? Are the technological needs of rainbow seniors different compared to the general aging population? What efforts were being made by community organizations to address and mitigate digital divide barriers amongst 2SLGBTQ+ older adults during the pandemic? What information or skills do service providers need to support rainbow seniors with their technological needs? The data and analysis in this study will be useful for mitigating digital divide barriers amongst rainbow seniors in the future and how service providers can critically assess the digital needs of the communities they serve. The following sections in this chapter lay the foundation of my dissertation. I outline my use of language, explain key terms within digital citizenship scholarship, and provide a brief overview of my dissertation chapters.

Use of Language:

For this dissertation, I regularly use the Two-Spirit, lesbian, gay, bisexual, trans, and queer acronym 2SLGBTQ+. In Canada, this acronym is commonly used by Canadian institutions. Similar acronyms used in Canada are 2SLGBTQI+, 2SLGBTQIA+ and LGBTQ2S+. The plus refers to people under the rainbow umbrella, including but not limited to, intersex, asexual, pansexual, and non-binary folks. Rainbow communities are diverse and dynamic; thus, it is necessary to embrace this reality. I acknowledge that many different acronyms are used to recognize gender and sexual diversity. There is not a singular universal acronym that truly reflects the diversity of 2SLGBTQ+ communities. Being knowledgeable on the differences between sex, gender, and sexuality is also significant for understanding why 2SLGBTQ+ people experience discrimination because of their identities.

Sexuality refers to whom an individual is attracted, for example, women-to-women, men-to-men, attractions to both genders and more (Katz 13). Gender is a social construct that is informed by ideologies that overdetermine how humans perform different genders. It can include categories like masculinity, femininity, genderfluidity, and gender nonconformity among others (Butler *Gender Trouble* 176-7; Butler "Performative" 520). Some people's genders align with the sex they were assigned at birth, while others do not. Sex normatively refers to a person's genitalia, which doctors use to assign people as either a binary male or female (Fausto-Sterling 27-8). However, people can be born with reproductive organs that have unique combinations of external and internal genitalia, as well as hormonal compositions, and expressions of primary and secondary sex characteristics (Fausto-Sterling 52). Additionally, trans people may identify as straight while others identify as lesbian, gay, bisexual, pansexual, asexual, among other identities. Terms used to describe gender and sexual diversity are not universal across all cultures and are not

reflective of the actual diversity of 2SLGBTQ+ communities. For example, the term "Two-Spirit" is contextual and specific to Indigenous cultures in North America to describe gender and sexual diversity. According to Brian Joseph Gilley, Two-Spirit "refers to a personal subjectivity consisting of two spirits, one male and one female. The notion of Two-Spirit is a contemporary reference to the availability of mixed-gender roles among most American Indian Tribes prior to European contact" (127). Non-Indigenous LGBTQ+ people are critiqued for misappropriating the term "Two-Spirit" and have been criticized for self-identifying with this identity category (Cameron 126; Toran par 3). In chapter two, these categories of identities will be further unpacked in the theoretical section of my dissertation through a summary of how queer theorists define biological determinism, social constructionism, performativity, heteronormativity, and homonormativity.

There are several phrases used to describe Canada's aging population. The term senior is sometimes associated with negative connotations, such as being frail, dependent, inflexible, and technologically inept (Lagacé et al. 2). Discrimination towards older people is known as ageism (Lagacé et al. 2). It is defined as prejudices towards individuals because of their age (Ippolito et al. 476). Ageism in Western countries is common in and amongst youth and older populations, even as older adults are greatly impacted by these prejudices (Lagacé et al. 2). Older adults experience these prejudices because they are socially constructed by popular culture to be unproductive, overly dependent, asexual, and unattractive (Ippolito et al. 476). Negative stereotypes about seniors perpetuates discrimination towards them because of their age, which can also intersect with race, class, gender, sexuality, and (dis)ability. The Canadian Federal government socially constructs people aged 65+ as seniors. This is the age at which some older

adults are recognized by the federal government as eligible for Old Age Security (OAS). In this study, I include Canadians aged fifty-plus because many online programs for older 2SLGBTQ+ people invite participants of all ages and they specify that older adults are fifty-plus. For example, The 519 has a program called "Drop-in for 2SLGBTQ+ Folks over 50" (The 519). As articulated by the title, programs for rainbow seniors are marketed toward people who are fifty-plus. Generally, people who are fifty-plus are more likely to have technological limitations because they did not grow up using the Internet and smart devices with the same consistency and regularity as younger generations. For the purposes of this research, the terms older person, older adults, senior or rainbow senior refer to people who are fifty-plus. Rainbow seniors will be used interchangeably with 2SLGBTQ+ older adults for this analysis.

Digital citizenship, Colonialism, and Identity Politics:

In June 2022, the Canadian government proposed Bill C-27 the Digital Charter Implementation Act (Charter Impacts). This charter promises to "modernize the framework for protection of personal information in the private sector and introduce new rules for the development and deployment of artificial intelligence (AI)" (Digital Charter par 4). The Charter consists of 10 principles: "universal access," "safety and security," "control and consent," "transparency, portability and interoperability," "open and modern digital government," "a level playing field," "data and digital for good," "strong democracy," "free from hate and violent extremism," and "strong enforcement and real accountability" (Digital Charter par 4-14). Bill C-27 was one of the first bills that heavily focused on governing ICT. Similarly, Bill C-18 is an Act respecting online communication platforms that make news content available to persons in Canada and it was enacted to give news stations power over how their content is shared on public platforms

like Facebook, Instagram, and X (formerly known as Twitter). In light of this Bill, Canadian news content cannot be posted or shared by companies or individuals on social media platforms without paying a fee. It appears that Bills focused on digital citizenship aim only to regulate how data and digital content is used and shared by private corporations; they are not concerned with how our individual identities are interconnected with and affected by the digital world. This raises the question of whether Canadian sovereignty should and will extend beyond the physical borders of Canada and into the digital world? While examining Canada's sovereignty over digital spaces is outside of the scope of my research, I do want to touch on what it means to be a citizen and how this ties into digital citizenship.

The Citizenship Act of Canada defines citizenship as a person born in or outside of Canada to a Canadian citizen or anyone who has applied for and been granted Canadian citizenship by the government (Immigration, Refugees and Citizenship). As a sovereign nation, the Canadian government establishes rights, responsibilities, and privileges that are granted to citizens, such as, voting rights, human rights, tax obligations, and legal protections. However, citizenship is not experienced in the same way by everyone. As Anna-Marie Field claims,

> my main concern rests on the fact that in liberal democracies, including Canada, where citizenship is said to be universal –meaning that everyone who is a citizen benefits from the same treatment by the state and is entitled to the same rights –groups that are considered Other on the basis of gender, sexual, or gender identity, race, ethnicity, etc., do not enjoy substantive citizenship (1).

Field argues that even when gender/sexual minorities have formal-legal citizenship, they are not granted the same legal protections by the state as substantive citizenship (Field, 1). Substantive citizenship refers to having legal rights, access to resources, and the ability to actively participate in society. Until the early 2000's, 2SLGBTQ+ people were often denied the right to equality before

the law, equal access to justice, and health and welfare (Field 1). The existence of legislative policies that include gender diversity and sexual orientation did not improve experiences of citizenship for all 2SLGBTQ+ people, because many are also Black people, Indigenous people, people of colour, people with disabilities, trans, and non-binary people who continue to face multiple forms of discrimination and stigmatization that are compounded by their intersecting identities. While many middle and upper-class white, gay, and lesbian Canadians are privileged with being recognized as citizens, many other 2SLGBTQ+ people continue to contend with an unjust system that perpetuates racism, classism, heterosexism, ageism, ableism and transphobia (Field 1; Comeau et al. 2).

The COVID-19 pandemic made it apparent who had access to resources, necessities, services, and opportunities, and who did not. Citizens who did not have an income, shelter, food security, a support network, medical assistance, and broadband access likely suffered more during stay-at-home mandates. For example, the Canadian government failed to protect 2SLGBTQ+ older adults living in LTC homes from strict visitation policies. These policies were implemented to minimize residents' exposure to and transmission of the COVID-19 virus. However, in Ontario these homes only allowed staff, biological families, and caregivers to visit and completely excluded chosen families (Jonsson “Social Isolation” 18). In brief, policies, practices, and social norms marginalized some rainbow seniors during the pandemic and made it more difficult for them to utilize digital communications to connect with their communities. I extend this analysis of citizenship to further discuss how limited access to or exclusion from the internet during stay-at-home mandates should is oppressive.

Statistics Canada collects data on the digital usage habits of Canadians through their Canadian Internet Use Survey (CIUS). Data from their 2020 survey showed how Canadians commonly spent their time online. 92% of participants used the internet, 27% spent 20 hours or more per week online. 83% used it for video streaming and 35% played online video games. A statistic that stood out was that more than 2 in 3 Canadians searched online to do research and to find information on health (CIUS). According to Statistics Canada, many Canadians used the Internet to work from home (12%), to attend online learning sessions (11%), and for video conferencing with friends or family (28%) (CIUS). Simply put, many of us enlist the internet as a tool that keeps us connected to work, knowledge, leisure, and social networks. However, the effectiveness of the internet as a tool changes depending on the user. As more and more people connect to the online world, having access to affirming virtual spaces that embrace gender and sexual diversity is a necessity.

I want to take a moment to reflect on how ICT usage was integral to carrying out and conducting this research during the pandemic. Researchers in Western nations depend on ICT to collect, store, and analyze data. I relied heavily on digital platforms to collect, manage, and analyze the data used for my dissertation. My laptop and external hard drive were the primary devices used to collect and store data. Having a laptop was an essential tool for me to connect to the internet to access communication platforms like Gmail, Instagram, Linkedin, and Facebook, which were used to share my online survey with potential participants. I relied on SurveyMonkey to collect survey data and online banking tools to pay participants. It is safe to say that the internet was critical for me to carry out this research during Ontario stay-at-home mandates. Without access to reliable devices that connected to the internet, my ability to carry out this work during stay-at-home

mandates would have been incredibly challenging. As I reflect on this process and my relationship to the digital world, I have become acutely aware of how my identity as an activist and academic is intrinsically linked to a digital identity that lives on the internet. Our physical identities are merged with digital identities which possess a digital footprint.

Digital citizenship refers to an array of topics, such as digital access, digital privacy, the digital divide, digital inclusion/exclusion, and digital dependence, which is not to say this list is exhaustive. (Mossberger et al. 1; Isin et al. 8; Ruppert et al.; Fang et al. "Tech Access" 1). Academics and policymakers use the term 'digital citizenship' or 'digital citizen' to explore human relationships with technologies, including how people access and participate in the online world (Mossberger et al. 1; Cortesi et al. 9). Cortesi et al trace the origin of digital citizenship to 2004. The term was coined by a technology consultant, Mike Ribble, who defined it as "the norms of behaviour with regard to technology use" (Ribble et al. 7). Some examples are how to safeguard one's physical health in the context of technology use, how to protect the integrity of personal information and digital devices, and how to buy and/or sell goods on e-commerce platforms (Cortesi et al. 10). Ribble went on to co-author a publication with Gerald Baily, called *Digital Citizenship in Schools* which provided educational opportunities for teachers to teach youth about how to become digital citizens. Their book taught administrators and educators in North America how to understand and incorporate the concept of digital citizenship into their pedagogy (Cortesi et al. 10). Cortesi et al. state that,

> On a global level, a variety of stakeholders – including government, international organizations, non-governmental organizations, and academic – have adopted the term to develop and shape formal and informal learning programs that aim to help youth address the challenges and embrace opportunities the digital environment may present (4).

Furthermore, digital citizenship emerged as a discourse to support youth in gaining the appropriate skills, values, and knowledge to use digital technologies. Since its inception digital citizenship scholarship has evolved to focus on populations and their technology usage across the globe. As an emerging field of study, many theorists have defined digital citizenship (Mossberger et al. 1; Isin et al. 8; Ruppert et al.) to clarify what it implies and how to understand its "effects or benefits on society, and more importantly, what role should be assumed by individuals participating in digital citizenship" (Manzuoli et al. 10). However, there is not a singular or unified definition of digital citizenship that is shared by all theorists. In sum, interpretations of concepts under the umbrella of digital citizenship are constantly changing to study what is rapidly evolving digital infrastructure (Manzuoli et al. 13). While there is an abundance of research that looks at the effects and benefits of ICT for youth, and in turn 2SLGBTQ+ youth, these studies fall outside of the scope of my dissertation. Throughout this dissertation, I take up the concept of the digital divide as it relates to aging 2SLGBTQ+ populations' experiences with new technologies. Digital citizenship is not precisely central to this analysis, because my objective is to understand how 2SLGBTQ+ older adults became excluded from accessing digital resources and services during the pandemic. Instead, the work of theorists who examine the digital divide with a focus on the intersections of aging and technology are a starting point for my research.

The digital divide refers to those who can access and benefit from the internet, and those who cannot (Mossberger et al. 1, Abdelaal et al. 7). Digital exclusion is defined as "exclusion from a society dominated by the internet and other digital technologies in many areas of everyday life" (Seifert et al. "Double Burden" e100). In the 21st century a majority of people in Western nations have access to a smartphone, tablet, or computer but that does not mean they are knowledgeable

on how to use or navigate the internet safely. Everyday, many people struggle with using online tools like searchable databases, social media, and video conferencing platforms (König et al. 621; Seifert et al. “Perceived Exclusion” 7; Abdelaal et al. 26). This is especially true for older adults who are less likely to use ICT regularly (Seifert et al. “Perceived Exclusion” 6). Navigating these platforms with ease is a privilege that allows individuals to have autonomy over their internet usage (Fang et al. “Tech Access” 3).

Digital exclusion can have detrimental impacts on an individual’s health and well-being, especially in Western societies that are socially, economically, and institutionally dominated by the internet and digital technologies (Seifert et al. “Perceived Exclusion” 3; Fang, M. et al. “Tech Access” 1). Older adults experiencing digital divide barriers are socially excluded from an entire virtual universe that many people under 50 are plugged into regularly (Seifert et al “Double Burden” e100). Digital exclusion can lead to exclusion from social interactions. As Seifert et al explain, “exclusion from participation in these digital areas can sometimes lead to subjective feelings of social exclusion” (“Double Burden” e100). According to Seifert et al, 27% of older adults aged 65+ in the United States do not use the internet (e100). Similarly, in Europe, a study conducted with seventeen European countries showed that 51% of people aged 50 and older abstain from using the internet (König et al. 621). Pre-pandemic, older adults preferred in-person interactions and phone communications (Government of Canada “Study: Canadians’ Use”). However, COVID-19 heightened individual reliance on ICT to communicate with relatives, friends, social programs, and health care providers. This dissertation explores technological advancements and their impacts on rainbow seniors in Ontario. Much of the literature on older adults' experiences with the digital divide conceptualizes their experiences as a homogenous

group, rarely exploring the complexities of low-income, racialized, disabled or 2SLGBTQ+older adults. Examining the intersections of aging, queerness, and ICT offers a nuanced view of the online services and resources that 2SLGBTQ+ older adults are interested in using. Chapter two provides a literature review that further explains how these concepts connect to cisgender heterosexual and 2SLGBTQ+ older adults experiences with ICT.

Preliminary Research:

Having reliable access to new technologies and high-speed internet is a basic human right (Fang, M. et al. "Tech Access" 2; "Internet for All"). While this right is not recognized in Canada's Charter of Rights and Freedoms, the idea that it should be such a right is a political stance that Scholars like Mei Lan Fang, Karen L.Y. Wong, Leslie Rumund ("Tech Access" 2) support. They state, "access to technology is a human right and has without a doubt become a requirement for human survival" (Fang, M. et al. "Tech Access" 2). Similarly, Canadian organizations like Acorn Canada ("Internet for All") argue that internet access is a basic human right because participation in online platforms is central to diversity and inclusivity in the daily lives of people living in Canada. I believe that building the capacity of service providers who serve rainbow seniors or others who experience ICT barriers can mitigate digital divide barriers. Improving access to online platforms can support service providers by ensuring their services are accessible and helpful to the communities they serve. In turn, it can help improve the physical and mental well-being of populations who are more likely to be digitally disconnected, like rainbow seniors. Being connected with friends, chosen families, community programs, and current events can relieve social isolation and loneliness for rainbow seniors (Mock et al. 541; Fang, M. et al. "Tech Access" 3; Fang, Y. et al. 1516).

In August 2020, I received a MITACS research internship award to conduct a preliminary analysis on the intersections of aging, queerness, and ICT. MITACS is a non-profit organization founded in 1999 that supports a broad range of research initiatives, ranging from Science, Technology, Engineering, and Mathematics (STEM) to social innovations. Their mission is to "build a world-class, diverse community of innovators through our collaborative model, attracting and deploying top talent to industry, and matching needs with expertise to create ambitious solutions to real-world challenges" (par 3). My MITACS project was titled "Exploring the Potential Barriers 2SLGBTQ+ Older Adults Experiences when Accessing Remote Service Provisions in Ontario during the Global Pandemic". This research explored the potential challenges rainbow seniors may encounter with locating and participating in online service provisions that are inclusive of rainbow communities. This analysis allowed me to consider potential solutions for mitigating digital divide barriers. For this study, I reviewed and examined publicly advertised 2SLGBTQ+ remote service provisions for older adults in Ontario during the global pandemic. This included webinars, panel discussions, community gatherings, and artistic performances (Jonsson "Exploring the Potential" 57). Reviews included the exploration of each organization's website and social media pages to identify how each program was advertised. I examined ten service providers in Ontario who offered remote social programs to 2SLGBTQ+ older adults during the pandemic. Data collected included the program description, advertisement method, and delivery. This limited my analysis to publicly available information on each program. Interviewing or surveying project coordinators or community members would have led to more concrete research outcomes in this study. Conducting a qualitative study that included service providers would have provided me with more insight into the strategies or tools they were using

to ensure participants could fully participate in their social programs. However, the MITACS internship timeline limited my ability to conduct an in-depth research study. Despite the limitations of my MITACS research, this study contributed to a growing discussion on digital inequities and inequalities during the pandemic. It illuminated how digital exclusion can affect rainbow seniors and called on service providers to consider how they can improve their online programming to be more accessible for the communities they serve. At the time this research was conducted I had limited recommendations for service providers but recognized that more concrete efforts were needed to mitigate the digital divide barriers rainbow seniors faced during the pandemic. This project was published by the University of Ottawa in the e-book "Can't Compute: Moving Towards an Equitable Digital World" (Martin-Bariteau et al. 1-65). I further discuss my MITACS research in more detail in chapter two.

Upon completing this study, I recognized the ongoing challenges and capacity limitations service providers may encounter with meeting the accessibility needs of rainbow seniors as it related to technological barriers. The digital needs of rainbow seniors may not be vastly different from their heterosexual counterparts when it comes to financial and digital literacy barriers. However, rainbow seniors do require knowledge and support in finding digital services that are culturally relevant, safe, inclusive, and affirming of 2SLGBTQ+ communities. Locating digital spaces that represent both their age and identity can be incredibly challenging. Non-2SLGBTQ+ seniors are privileged with access to an abundance of services that are affirming of their gender and sexual identities both online and offline. This research is significant for uncovering what those unique challenges are and generating a discussion on how service providers can implement strategies to mitigate the digital divide barriers rainbow seniors face. My main concern rests on

the fact that in liberal democracies, including Canada, where citizenship is said to be universal – meaning everyone who is a citizen benefits from the same treatment by the state and is entitled to the same rights –groups that are considered "Other" on the basis of gender, sexual, or gender identity, race, ethnicity, etc., do not enjoy substantive citizenship. As a non-profit outreach coordinator during the pandemic, I too was faced with barriers that limited my ability to make online programs accessible, such as financial constraints, a lack of knowledge of accessibility tools and resources, and limited time-constraints on task deliverables that impeded my ability to fully explore the digital needs of the communities Rainbow Faith and Freedom (RFF) served. I explore this in more depth in the following paragraphs. My MITACS research showed me the importance of collecting more qualitative and quantitative data that captures how 2SLGBTQ+ older adults use and benefit from the internet.

Throughout this dissertation, I often draw on my own experiences as a researcher, activist, and service provider to discuss the ICT challenges I had to navigate during the pandemic. In conjunction with my MITACS research project, I attended programs for 2SLGBTQ+ older adults and networked with program coordinators virtually during stay-at-home mandates. This furthered my insight on how older adults accessed these services and gave me the opportunity to pilot a technology lending initiative. In September 2020, I collaborated with the AIDS Committee of North Bay & Area (ACNBA) to raise funding for their first technology lending program for 2SLGBTQ+ older adults. ACNBA offers inclusive programming and social support services to 2SLGBTQ+ communities in North Bay and the surrounding area (ACNBA, 2021). I collaborated with Ashley Di Benedetto, the New Horizons for 2SLGBTQ+ program coordinator to develop and implement a technology-lending program. Ashley purchased Samsung tablets to loan out to

rainbow seniors living in North Bay. She personally assisted each participant by providing an in-person onboarding tutorial to teach them about their new devices (Benedetto, 2020). This initiative was a concrete strategy that removed digital access barriers for rainbow seniors in North Bay. This included digital literacy barriers and device access barriers. Programs like these are essential, especially when stay-at-home mandates increase some peoples' reliance on digital devices to connect with the outside world.

In October 2020, I was hired as the outreach coordinator for RFF. Their mission is to "inspire faith communities and families to be safe for LGBTI people by changing the hearts and minds of individuals around the world" (RFF). My role required me to plan and host a weeklong virtual event series entitled "Faith in Crisis: Multifaith-Based [2SLGBTQ+] Resources and Digital Programming for the Pandemic." In collaboration with the RFF team, I planned 15 remote programs including webinars, social gatherings, story-time, and educational sessions; for instance, "Queer Devotions," made in 2020, was a podcast produced by our team to explore the intersections of spirituality and queerness. My role required me to identify tools and strategies for assisting attendees with accessing our online resources and events. The Faith in Crisis launch week was held virtually in November 2020 and connected over 100 Canadian 2SLGBTQ+ organizations with RFF's resource portal. RFF's virtual launch week attracted over 500 participants (Globalwire). Several strategies were implemented to make our event digitally accessible, which included reviewing zoom accessibility features, working with audio transcribers, using a multimedia approach and offering technology support. Our team reviewed zoom accessibility features and implemented closed captioning for all webinars. Zoom sessions were recorded and transcripts were generated upon concluding the webinars. The transcripts and audio recordings

were shared with audio transcribers that we hired to edit the transcripts. Additionally, we used a multimedia approach, which involved live webinars, recorded versions of the webinars, and the podcast “Queer Devotions" which folks could tune into on Spotify, iTunes and other podcast platforms. Lastly, we offered technology support, which included phone calls to assist folks with access to RFFs online programming. During the development stages of this project, I advocated for funding to support 2SLGBTQ+ community members of all ages who required technology assistance to participate in RFF’s digital programs. RFF agreed to provide monetary support to community members who needed it. These first-hand experiences strengthened my knowledge of digital divide challenges and supported me in furthering my research on rainbow seniors. It taught me that producing a dialogue on the need for safe, accessible, and inclusive virtual services can support organizations in building digital inclusion strategies.. My experience led me to incorporating a non-for-profit called the Ontario Digital Literacy and Access Network (ODLAN).

Queering the Digital Divide is a community-based research study that draws on my preliminary research and experiences described above to examine rainbow seniors' experiences with accessing and using the internet during the pandemic. It aims to understand the tools they use to access online service provisions and how easy it is for them to locate programming and social services that suit their needs. An online survey is an opportunity to gather rainbow seniors’ perspectives on the role of technology in their day-to-day lives during the pandemic. Through my data collection, I explored how satisfied 2SLGBTQ+ older adults are with their hardware, digital literacy skills, support systems, level of usage, and internet affordability. In October 2021, I released the Queering the Digital Divide: Community Needs Assessment. This online survey was distributed to rainbow seniors across Ontario, resulting in 51 completed surveys. The results from

this study are shared in chapters three and four. My findings can be used by researchers or service providers to inform how they assess and meet the needs of 2SLGBTQ+ communities. Additionally, this work can be drawn on to build digital inclusion strategies, which are necessary for addressing and removing digital divide barriers. For instance, the findings and analysis will support service providers with thinking critically about the digital needs of the communities they serve and strategies they can adopt to reduce digital divide barriers for 2SLGBTQ+ older adults.

Chapter Summary:

This chapter lays the groundwork for my dissertation. I state my research topic, key questions, and provide foundational knowledge on digital citizenship. By situating my analysis within the broader field of digital citizenship and narrowing my focus onto digital divide scholarship that examines aging and ICT usage, I reinforce the fact that my research objective is to understand the exclusion of gender/sexual diversity within this scholarship. Additionally, this work is approached through a community framework that is proactive in addressing the digital divide challenges rainbow seniors faced. My research and activist work are not separate entities, rather they inform and grow in conjunction with one another. I believe that research that is done on or with equity-deserving groups must have a component that aims to leave a positive impact. In chapter two, a literature review identifies current research on aging populations and the limitations of this research. In addition to this, it outlines the feminist and queer theoretical frameworks used to problematize and address the limitations of digital divide scholarship on older adults. Doing this initiates a discussion on why identity categories like sex, gender, and sexuality are relevant to discussions of ICT usage amongst aging populations.

Chapter three describes the methodology used to develop the Queering the Digital Divide: Needs Assessment and the data collection process. It explains the benefits and limitations of the methodology used and presents my quantitative findings and an analysis of what these findings tell us about rainbow seniors' digital divide experiences during the pandemic.

I continue the analysis of my dataset in chapter four, which focuses on connecting the quantitative data (statistics) to the qualitative data (short answer written responses). In this chapter, I use a thematic analysis to identify key themes and patterns in the data to interpret how rainbow seniors' experiences with ICT is shaped by their sex, gender, and sexuality.. This analysis identifies the nuances of 2SLGBTQ+ older adults' experiences with ICT along with how internet access differed amongst study participants. Research limitations are reflected in this chapter. My findings from this chapter identity how rainbow seniors can benefit from digital access programs that are tailored to their online interests and needs.

My research and experiences working with rainbow seniors have shown me that gender and sexual identity do shape how individuals' access and navigate the internet. Chapter five details the knowledge mobilization (KMb) strategy used throughout this research and how it leads to the development of the Ontario Digital Literacy and Access Network (ODLAN). I explain how KMb was integrated into my community-based initiative to raise awareness and address the immediate technological needs of rainbow seniors during the pandemic. It provides an overview of the formation and significance of the not-for-profit organization I co-founded called the Ontario Digital Literacy and Access Network (ODLAN). Overall, I have concluded that the internet caters heavily to heterosexual people and reinforces binary ways of thinking about sex, gender, and sexuality. Content and services for 2SLGBTQ+ communities are censored by online algorithms

which create challenges for subgroups like rainbow seniors to locate affirming online resources, communities and service providers. Some rainbow seniors in Ontario are limited in accessing technology support services because of their socioeconomic status or geographical locations. Lastly, many service providers who serve 2SLGBTQ+ older adults in Ontario do not have the capacity or infrastructure to offer digital literacy and device lending programs. Additionally, this final chapter is a call on academics to expand on this topic and provide suggestions to researchers and service providers about how they can meet the digital needs of the communities they work with or serve.

Chapter Two
Queering the Digital Divide

COVID-19 and Increased Digital Reliance:

The novel COVID-19 virus was identified on December 19, 2019 in Wuhan, China, and quickly progressed to a global pandemic by mid-March 2020 (World Health Organization; Jonsson "Social Isolation" 1). Due to stay-at-home mandates, many non-essential Canadian businesses shut down, resulting in several sectors transitioning to work from home, and most, if not all, social interactions moved exclusively to virtual platforms (Fang, M. et al. "Tech Access" 2; Jonsson "Exploring the Potential" 56). Stay-at-home mandates were pandemic regulations enacted by the Government of Canada to contain the COVID-19 virus. Pre-pandemic, many Two-Spirit, Lesbian, Gay, Bisexual, Trans, and Queer (2SLGBTQ+) older adults already experienced digital insecurities (Mock et al. 538). The pandemic heightened the impact of these barriers in connecting with remote resources and service provisions aimed at 2SLGBTQ+ communities (Jonsson "Exploring the Potential" 59). Unlike younger generations (under the age of 55) who are raised to be digitally savvy, older adults are more likely to abstain from learning about Information and Communication Technologies (ICT) and are less engaged digital citizens (Mock et al. 538; Fang, M. et al. "Tech Access" 2; Fang, Y. et al. 1516).

This chapter is a review of digital citizenship scholarship that focuses on older adults' experiences with the use of ICT. It explores the dominant discussions of seniors' experiences with digital divide barriers, who is included in this research, and what is absent from scholarship on aging and technology. By engaging in an analysis of the dominant discourses on aging and technology, it unpacks how 2SLGBTQ+ people, especially rainbow seniors participate in, are

excluded from, or abstain from using ICT. The purpose of this discussion is to put digital divide scholarship into conversation with feminist and queer theories. It builds towards an analysis of how some rainbow seniors, especially those who are racialized, low-income, and/or disabled were excluded from accessing ICT during Ontario stay-at-home mandates and as such became marginalized from participating in the digital world. I anticipated that digital citizenship scholarship with a focus on aging populations would focus heavily on heterosexual older adults, ignoring the lived realities of rainbow seniors. Current approaches to researching older adults' lived experiences with the digital divide entail a discourse that upholds hegemonic assumptions about technology usage that is biased and that over generalizes seniors' experiences with the internet. An intersectional analysis of older adults ICT usage is often missing and overlooks how social identities like race, class, gender, sexuality, age, and/or (dis)ability intersect to hinder an individual's participation in online services. Dominant beliefs about aging and technology represent older adults' experiences with ICT as monolithic, failing to see the diversity of individual experiences with ICT.

The first section of this chapter analyzes and synthesizes literature on Canadian older adults' experiences with the digital divide. The second section outlines the theoretical frameworks used in this dissertation, which include an intersectional and intergenerational approach to understand how internet access could improve the health and well-being of 2SLGBTQ+ older adults during the pandemic. Generally, older adults are known to face challenges with accessing and benefiting from the internet (Lagacé et al. 1; Seifert et al. "Double Burden" e99; Mock et al. 538; Fang, M. et al. "Tech Access" 2), a reality that is magnified when seniors belong to marginalized communities. Older adults have fewer opportunities to engage with services and

providers who are sensitive to their intersectional social locations which may impact how their needs manifest.

Canadian Digital Divide Scholarship:

This section analyzes and synthesizes literature on how the digital divide influences older adults' experiences with ICT in Canada to critically assess the intersections between aging and technology. I unpack the subtle nuances that differentiate 2SLGBTQ+ older adults' digital divide experiences compared to non-2SLGBTQ+ people. I am aware that there are likely commonalities between these two populations, however, the socioeconomic status of white, straight, and cisgender seniors increases the likelihood that they have the time, money, resources, and support to learn about ICT (Fang, M et al. "Tech Access" 3; Hargittai et al. 195). I anticipated that the literature on aging and new technologies rarely enlists an intersectional approach to unpack how class, gender expression, and sexual orientation shape individual experiences with ICT barriers. The purpose of this analysis is to review the current literature on digital inequalities and inequities to identify common literature topics, such as anxieties towards ICT, soft skills, physical limitations, cognitive impairments, social participation (to relieve social isolation and loneliness), and financial disparities. Furthermore, it identifies gaps in digital divide scholarship, including discussions related to aging, queerness, and ICT.

Scope of Literature Review:

This literature review primarily focuses on scholarship from 2016-2021. Relevant literature published before 2016 is included in the overview to summarize the origin of digital citizenship and digital divide discourses. For this analysis, I reviewed literature at the intersections of aging and new technologies to understand how the digital divide has a greater impact on older adults who experience socioeconomic disadvantages. I chose a 5-year range since literature on the digital

divide prior to 2013 is already well-documented and it does not include studies on how older adults experience digital literacy and access barriers. I initially wanted to focus on Canadian literature. However, due to information scarcity I extended the scope of my literature review to include research from the United States. Digital divide research that incorporates an intersectional approach is uncommon; although, scholarship on digital inequalities and inequity are becoming more robust (Fang, M. et al. "Exploring Privilege" e1; Mock et al. 542). The next section is an overview of digital divide scholarship that focuses on older adults' experiences with ICT access and usage.

Overview:

Digital Divide Barriers & Aging Populations

Information and communication technologies (ICT) are products that "enable information storage, retrieval, manipulation, transmission, or reception in digital form, can improve access to goods and services; generate and maintain a safe and secure independent living environment; facilitate self-management of age-related challenges; and enable social connectivity and participation" (Fang, M et al. "Exploring Privilege" e1). Before 2006, research on the digital divide focused on unequal access to emerging ICT (Yu 660). Unequal access includes but is not limited to, inability to afford ICT, lack of knowledge on how to use ICT, and living in regions with limited or zero broadband access (Yu 660; Fang, M. et al. "Exploring Privilege" 1). As Fang, M et al explains, "middle-aged and older adults who have higher incomes and financial means to purchase a computer and pay for internet connection are more likely to use ICTs" ("Exploring Privilege" e5). The digital age heightened individual reliance on ICT as the internet emerged as a primary form of communication in the 21st century. Digital inequalities appeared with the growth of ICT,

increasing the expanse of the digital divide. To reiterate, the digital divide refers to accessibility differences between those who can access and benefit from the internet, and those who cannot (Mossberger et al. 2). Digital exclusion is defined as "exclusion from a society dominated by the internet and other digital technologies in many areas of everyday life" (Seifert et al. "Double Burden" e100). Initially, scholarship on ICT usage primarily focused on physical access to the internet, examining how education and financial stability were equated with increased internet access and usage. Technological advances evolved digital divide scholarship to address how digital divide barriers have moved beyond physical access barriers. More recent scholarship focuses on the education and cognitive abilities needed to learn and navigate digital platforms (Abdelaal et al. 9-37). Unlike younger generations who grew up with the internet, older adults commonly require computer skill lessons on how to use various software, databases, and to change computer settings. For example, Abdelaal et al explain that while older adults in Canada are increasingly using digital technologies, a lack of coordination between governments, communities, and grassroots organizations limits the reach of digital literacy programs meant for older adults, especially those who require substantial digital support, such as individuals with physical disabilities or cognitive impairments (Abdelaal et al. 26). According to their research, "difficulties accessing online resources among older adults relates to three primary issues 1) an internet connection at sufficient speeds; 2) the necessary equipment to be able to connect; and 3) the digital literacy skills required for easy navigation and protection of online safety" (Abdelaal et al. 26). This section elaborates on the digital divide barriers older adults experience more generally and identifies literature gaps that I will address in subsequent chapters.

In 2019, older adults aged 65+ represented 9% of the world's population. This number is projected to rise to 16% by 2050 according to the United Nations (UN). The global pandemic caused a 'digital boom' that increased our reliance on ICT, however, older adults are being excluded because of their fears, lack of knowledge, socioeconomic barriers, physical limitations, cognitive impairments, and environmental barriers. In 2020, internet usage was still uncommon amongst underserved groups, such as low-income communities, Indigenous people, rural populations, and people with disabilities (Abdelaal et al. 12). Abdelaal et al. state that "according to [the Canadian Internet Use Survey] about 38% of Canadian residents aged 75 or older, 16% of people with disabilities, 15% of those not employed, 12% of Indigenous peoples and 13% of those living outside a metropolitan area did not use the internet, compared to only 8% overall" (12). Equity-deserving populations were not required to be plugged into the internet for work, school, or socializing pre-pandemic. This is because their jobs, classes, and social gatherings as people who are more often on the margins were more commonly done in person, especially amongst older adults.

Stay-at-home mandates affected equity-deserving groups across Canada, however, this research I drew on scholarship primarily focused on how older adults perceive, use, and navigate the internet. It rightly hypothesized that current ICT scholarship focused on older adults predominantly excludes an intersectional framework examining aging, queerness, and ICT. While there is some scholarship that did incorporate an intersectional lens (Abdelaal et al 7; Fang, M. et al. "Exploring Privilege" el; Fang, M. et al. "Tech Access" 3; Mock et al 536) this was uncommon. The next section explains the challenges older adults face with ICT along with how digital literacy and access barriers can be heightened for 2SLGBTQ+ folks.

Anxiety towards Technologies:

While the internet has existed and been available to the public since the early 1990's, navigating the digital world can be difficult for many people. Studies show that older adults can benefit from ICT, however many experience fears or anxieties towards technological advances and towards using these technologies (Hargittai et al. 200; Perrin and Atske; Seifert et al. "Double Burden" e99; Tsai et al. 696). Technophobia refers to having negative or anxious thoughts towards technology and technological advances (Lagacé et al. 2; Nimrod 148). Technological self-efficacy (Tsai et al. 695; Lam et al. 177) is another term used to describe "the belief in one's own ability to use new technologies, or the anxiety with the new technology" (Tsai et al. 698). In the United States, it is estimated that 27% of older adults aged 65 and older still choose not to use the internet (Perrin and Atske; Seifert "Double Burden" e100). Some fears towards technology could be exposure to online scams, exploitation of personal information, radiation poisoning, and uncertainty about foreign devices, as well as online breaches of personal information (Nimrod 150; Mock et al. 542; Quan-Haase et al. 206). Moreover, older adults' anxieties towards the internet can be magnified because of skill gaps that limit their ability to confidently use online platforms (Hargittai et al. 200).

Skill Gaps and Physical Limitations:

The first step for accessing ICT is having a device, like a desktop computer, tablet, laptop, or smartphone that can connect to the internet. Without a proper device, not to mention convenient broadband service access, using the internet is impossible. However, giving older adults access to devices like iPads, smartphones, tablets, and computers does not necessarily lead to increased internet usage because of digital literacy gaps (Lagacé et al. 9; Hargittai et al. 200). Digital

mentorship support, either one-on-one or in group settings, is necessary for individuals who are unfamiliar with how to use ICT or with how to use it well. Skill gaps are known as a "second-level digital divide issue" because of how inaccessible digital designs may impede older adults from using and benefiting from the internet. For example, website design and navigation functionality are not always intuitive to older adults and their vision, cognition, and dexterity can impact their ability to learn how to use new devices seamlessly (Hargittai et al. 200). These barriers can intensify frustrations with learning about new devices and they can exacerbate negative assumptions towards ICT (Lagacé et al. 2). The COVID-19 pandemic caused a 'digital boom' that has increased reliance on new technologies and now many older adults are required to invest in new devices in order to adapt to access essential services.

During the pandemic, virtual healthcare services were becoming increasingly digitized. Many older adults were pushed into learning about digital technologies to connect with health care professionals during the pandemic. Mitchell Crozier's article "Equitable Virtual Care in Canada: Addressing the Digital Divide" explores how populations are being excluded from care because so much more care is digital. Prior to the pandemic, 19% of Canadians accessed healthcare remotely. During the pandemic, this number has risen to 53%. While virtual health care was an option prior to the pandemic, it is now becoming a necessity (Crozier 49). Digital literacy support services for older adults need to be more widespread to ensure older adults have the skills and support they need to access virtual health care. While older adults are often resistant toward adopting new technologies into their lives, having access to and learning ICT can improve the quality of not only their lives but also their health (Tsai et al. 696).

Most new technologies, like Android phones, iPhones, new laptops, stationary computers, and tablets are built with features to assist individuals with physical or cognitive limitations including text-to-speech, speech-to-text, alternative text, and closed captioning. These features can be found in the settings application, under the ‘accessibility’ or ‘ease of access’ section. There are several assistive software and device features that aim to remove physical barriers to using new technologies. The Accessibility for Ontarians with Disabilities Act (AODA) requires that all for-profit, not-for-profit, and government agencies with over fifty employees must comply with provincial requirements to make both in-person and online services as accessible as possible (The Act, AODA; "About Accessibility Laws"). The purpose of AODA is to acknowledge and mitigate discrimination against people with disabilities in Ontario. It is “developing, implementing and enforcing accessibility standards in order to achieve accessibility for Ontarians with disabilities with respect to goods, services, facilities, accommodation, employment, buildings, structures, and premises on or before January 1, 2025; and providing for the involvement of persons with disabilities, of the Government of Ontario and of representatives of industries and of various sectors of the economy in the development of the accessibility standards.” (The Act, AODA, par 2-3). Due to these mandates, more resources are becoming available for people with disabilities to remove physical and cognitive barriers to the workplace. Undoubtedly, many of these solutions will be beneficial in supporting older adults’ adaptation to ICT, while others may create more barriers. Older adults are more likely to experience disability-related barriers as they age, making assistive technologies a valuable resource to help them with becoming accustomed to digital platforms.

Social Isolation:

ICT can have a positive impact on relieving social isolation by connecting older adults with the outside world. Social isolation is defined as limited social interactions, contact or relationships (Brooke et al. 2044; Jonsson "Social Isolation" 4). ICT usage often helps older adults to stay in touch with their social circles, relatives, and care networks (Cotten et al. 9). According to Cotten et al, internet usage enhances long distance relationships for older adults by reducing the impact geographical distance has on their ability to communicate with relatives or close friends (9).

Social distancing measures during the pandemic were continuously mandating that citizens who are at high risk of contracting the virus should self-isolate, which meant, staying home and avoiding in-person contact with others (Jonsson "Social Isolation" 4). Age and ICT barriers are a double burden for older adults, and especially during the pandemic when all social interactions were remote (Seifert et al. "Double Burden" e99). According to Seifert et al "despite the positive digital participation outcomes for people worldwide during the COVID-19 pandemic, older adults risk feeling doubly excluded, first from physical contact and second by digital exclusion from a digitally dominated society" ("Double Burden" e100). Digital technologies are not solely being used for social interactions, but are used also to participate in online services, e-commerce and current events (Jonsson "Exploring the Potential" 56). Exclusion from the digital world could lead older adults to feel socially isolated and excluded whenever social distancing mandates might be enforced (Seifert et al. "Double Burden" e101). Seifert et al. emphasize this, stating that "if inclusion in current society means active participants in the digital world, then older adults who are not online or otherwise active on the internet risk being socially excluded" ("Double Burden" e101). It is highly probable that older adults living without ICT may have risked their health by circumventing government mandates to stay socially connected. For instance, some may have

chosen to ignore stay-at-home mandates to visit friends and relatives, including chosen families in an effort to relieve the effects of social isolation. Prolonged social isolation, especially during the pandemic, can lead to feelings of loneliness (Seifert et al. “Double Burden” e101).

Loneliness:

Loneliness is a feeling that emerges from a lack of connectedness, occurring from prolonged periods of social isolation that can cause anxiety, stress, melancholy, suicidal ideation and experiences of loneliness differ for everyone. Cotten et al. observe that loneliness is a “subjective experience of negative feelings about levels of social contact; otherwise stated, it is the involuntary state of social isolation or feeling of being alone” (2). Humans are naturally social beings that require regular social interactions with others to feel a sense of belonging, engagement, and meaning in their lives. Everyone is susceptible to feelings of loneliness, but older adults are particularly vulnerable to several negative health and social outcomes when forced into isolation (Brooke et al. 2044; Savage et al. 1; Jonsson “Social Isolation” 9-10). Older adults are especially susceptible to loneliness because they often retire, struggle with chronic illness, are widowed, and may live alone (Savage et al. 1). Loneliness can have a significant impact on older people’s health and well-being, such as cardiovascular disease, anxiety, stress, depression, dementia, cognitive disfunction, premature death, and even suicide (Brooke and Jackson 2044; Savage et al. 2). According to Brooke and Jackson “loneliness is a complex, subjective emotion, experienced as a feeling of anxiety and dissatisfaction associated with a lack of connectedness or communality with others, and a deficit between the actual and desired quality and quantity of social engagement” (2044). Studies have shown that feelings of loneliness can be relieved through the use of ICT (Cotten et al. 9; Lagacé et al. 1). ICT can raise an individual’s social capital by enabling them to

maintain satisfying relationships regardless of their geographical location. Prior to the pandemic, older adults living in long-term care homes did not necessarily rely on ICT technologies to socialize because they had social and recreational activities they could attend regularly (Lagacé et al. 9). This shifted during the pandemic as government mandates forced older adults to be isolated in their homes and LTC policies prevented family members from visiting regularly or at all at different times during the pandemic (Jonsson "Social Isolation" 10).

Financial Disparities:

Digital divide literature shows a correlation between income status and technology usage (Seifert "Double Burden" e100; Haight et al. 506). Older adults living with financial instability may not be able to afford internet plans or ICT devices; this is especially true in rural Canada where access to high-speed internet is not affordable for over 10% of Canadians (Abdelaal et al. 9). Unaffordable internet plans and devices make it difficult for low-income communities to access digital resources and service provisions (Jonsson "Exploring the Potential" 61). Fang, M. et al. explain that "middle-aged and older adults who have higher incomes and financial means to purchase a computer and pay for internet connection are more likely to use ICT" ("Tech Access" 5). The Covid-19 pandemic heightened financial instability across the globe by forcing some people to opt out of purchasing devices or internet plans because of their socioeconomic status (Fang, M. et al. "Tech Access" 3). For some older adults, ICT is not even an option because they reside in rural regions, like Northern Ontario (Thunder Bay, North Bay, and Sudbury) which are known to have poor telecommunication infrastructures.

Geographical Limitations:

It is well documented that rural populations experience more barriers to accessing ICT. Rural regions in both the United States and Canada are faced with digital divide barriers because of poorer telecommunication infrastructures (Lai et al. 459; Crozier 50). An estimated 12% of Ontario's population is living without reliable internet access – a large segment living in remote or rural spaces where telecommunications infrastructure is not up to date (Government of Ontario par 4). While the Minister's letter does not specify the ethnicity of these populations, it does indicate that internet access in Ontario varies in each region. According to the Ontario government, "Most residents in Ontario have access to the internet; however, the speed, quality, reliability, and cost of each connection can vary significantly. And while many have access, some communities in rural, remote and northern Ontario lack broadband and cellular service altogether" (Queen's Printer for Ontario par 28). In 2020, it was estimated 30% of First Nations households had high-speed internet connections (FR24 News; Government of Ontario, 2020). Pre-pandemic, access to reliable high-speed internet on Indigenous reserves and in rural communities was limited.

Queer Older Adults and ICT Technologies:

Steven E. Mock and colleagues conducted 20 focus groups across five Canadian cities (Vancouver, Edmonton, Toronto, Montreal, and Halifax) wherein 93 participants aged 55-89 who identified as LGBT participated in group surveys to share ICT's role in their end-of-life planning. Their research studied how LGBT older adults understood ICT, the role of ICT in their end-of-life planning and how it affected their social integration (Mock et al. 541). They used four broad themes to conduct their analysis: fear, individual benefits, social elements, and contextual elements. Mock et al. stated that they

> Found LGBT older adults shared many fears, benefits, social factors, and contextual factors related to the role of technology in later-life planning, social integration, and well-being

> seen in research on cisgender and heterosexual older adults. Our findings also show unique challenges in older LGBT adults' experiences with technology and later-life planning related to sexual orientation and gender identity (541).

The results found that while LGBT older adults harboured fears towards ICT they understood how it could benefit their ability to connect with services and resources for end-of-life planning. For some, these fears included exposure to negative or hostile internet content that contained homophobia, heterosexism, or transphobia (Mock et al. 540). Participants shared that they often became overwhelmed by the complexity of ICT, which discouraged them from using it (Mock et al. 540). While fears towards ICT were evident, participants also shared how they used ICT as a learning and resource tool that allowed them to explore their sexual orientation and gender identity (Mock et al. 540). The internet is also a tool that gave them opportunities to establish and maintain personal relationships and social networks, through platforms like Facebook (Mock et al. 540). Challenges related to internet affordability and technology costs were a concern for the study participants who highlighted that their lack of a fixed income was a major reason for not utilizing ICT more. In some cases, participants did not own a personal computer and/or did not have internet access in their place of residence. Study limitations were evident as Mock et al. explained that great efforts were made to recruit a diverse range of LGBT older adults, including those who were Black, Indigenous, or people of colour (BIPOC) along with rural community members, but their outreach attempts were unsuccessful (Mock et al 542). The selection criteria excluded individuals with no or limited access to technology and thus their experiences were not captured by this study at all. When this literature review was conducted, research on rainbow seniors' experiences with ICT was scarce. As a result, the research by Mock et al. is further explored in chapter four, where I compare Mock's findings to my own data analysis.

My MITACS research, conducted in Fall 2020, explored the different kinds of barriers that rainbow seniors could encounter during the pandemic and it identified four key barriers to digital inclusion. This includes connectivity barriers, digital literacy barriers, environmental barriers, and pandemic barriers (Appendix A). To support my hypothesis, I examined ten online service provisions to assess the types of barriers rainbow seniors may encounter when trying to attend and participate in those programs. To be included in this analysis, the online programs had to serve 2SLGBTQ+ older adults, be located in Ontario, and be hosted online during stay-at-home mandates (Jonsson "Exploring the Potential" 57). My objective was to highlight the potential ICT barriers program participants may encounter in trying to access and participate in these programs. The programs I assessed included online webinars, community gatherings, and performances (Jonsson "Exploring the Potential" 57). My assessment notes included information on who the service providers were, the region in Ontario they were located, and the type of telecommunications platform (Zoom, Facebook Live) their programs were hosted on. I also noted the type of devices, software, and computer skills rainbow seniors needed to attend the program remotely. The data captured by this study did not include the diversity of program attendees or attendees' personal experiences with device access and usage (Jonsson "Exploring the Potential" 57). I stated that

> At the time of this study, all 10 service providers used Zoom to offer social programming (10/10). Several programs advertised their services on Facebook (7/10). One program used a talk show format that was live-streamed and recorded for public viewing on YouTube (1/10). Most programs were informal social gatherings that were not recorded for public viewing (9/10). Some organizations offered digital literacy support programs to help participants access their events with ease (2/10). All of the service providers used digital platforms for social gatherings, educational workshops, and networking (10/10) (Exploring the Potential" 59).

Due to the limited timeframe for this research, I could not pursue the kind of interview-based research that entailed an ethics review process. This limited my approach in conducting this research and my ability to conduct interviews that would have captured further insight into the digital literacy and access barriers service providers and attendees experienced during the pandemic. This research was the catalyst for my Queering the Digital Divide Community Needs Assessment because it demonstrated the urgent need to better understand digital inequalities and inequities that 2SLGBTQ+ older adults might experience because of their socioeconomic status (Jonsson "Exploring the Potential" 62). This research accomplished a foundation for understanding the digital divide barriers various rainbow seniors may face when accessing online programs. It also considered how matters of race, class, sex and gender, sexuality, and age contribute to the digital divide in Canada, although there is room for much more research on these fronts too. For instance, while the research gathered information on barriers rainbow seniors who are already on the internet experienced, one-on-one interviews with participants of these programs would have provided more insight into how their social locations impacted how they gained access to online programs and any challenges they encountered in fully participating. Moreover, this study opened up possible solutions for how service providers can mitigate digital divide barriers, which is unpacked briefly in the next section and subsequent chapters.

Possible Solutions:

Experts suggest that to bridge the digital divide, efforts must be made to remove digital access barriers. This includes increasing high-speed broadband internet to rural and remote communities; offering free and safe access to technologies in public spaces; subsidized technology access programs; supporting expansion of digital literacy programs for all ages; creating culturally

and linguistically inclusive digital platforms; and ensuring platforms are accessible to people with physical and cognitive limitations (Crozier 50; "Internet for All"). As mentioned in my own research,

> [S]ome 2SLGBTQ+ organizations have implemented strategies to create more accessible, inclusive, and affirming spaces for 2SLGBTQ+ older adults experiencing barriers to digital spaces. These are primarily organizations that were not included in this analysis, with the exception of the AIDS Committee of North Bay. The Ottawa Senior Pride Network (OSPN) and Max Ottawa partnered to offer hardware lending for two- to four-week periods and older adults who require training on software can schedule one-on-one digital literacy support (Ottawa Senior Pride Network, 2022). Connected Canadians, another Ottawa based program, pairs mentors with all older adults across Canada to provide them with the training and knowledge to navigate the virtual world (Connected Canadians, 2018). They have partnered with organizations like the Rainbow Resource Centre to share their services with 2SLGBTQ+ older adults ("Exploring the Potential" 60).

This example highlights organizations that took proactive steps during the pandemic to address and prevent digital divide barriers. More initiatives like these would greatly benefit 2SLGBTQ+ people, especially low-income older adults.

Current Literature Gaps:

Research on digital inequalities and inequities are emerging areas of interest among scholars who use an intersectional framework to examine how vulnerable communities are limited or excluded from the digital world. Generally, the COVID-19 pandemic caused a shift to remote education in Ontario that created access barriers to online educational programs (Hassan et al. 253). Hassan and Daniel explored the topic of how Black students can be more likely to be negatively impacted by digital barriers (Hassan et al. 254). While their research does not focus on older adults, it does signify the structural and systemic inequalities that intersect with race and class to impede an individual's ability to fully access and participate in ICT.

My MITACS research explored the intersections of aging, queerness, and new technologies to identify the key challenges to digital inclusion for 2SLGBTQ+ older adults. It was a useful starting point to critically think about how service providers who served rainbow seniors were overlooking their digital literacy and access needs. I assessed how the digital divide shapes 2SLGBTQ+ older adults' experiences with digital literacy and access – to educate organizations, governments, and other key stakeholders about how some community members are more privileged in their ability to access and benefit from internet usage while others are excluded because of their socioeconomic status and lack of knowledge about new devices. Data released by Egale Canada during the early stages of the pandemic reported that 49% of 2SLGBTQ+ people expressed concerns with their lack of social interactions due to stay-at-home mandates and felt that it took a toll on their sense of belonging. Additionally, 2SLGBTQ+ people were 10% more likely to experience social isolation during the pandemic compared to their heterosexual counterparts (Egale Canada; Jonsson "Social Isolation" 5). This data informed the development of the four key barriers examined in my MITACS research, which included economic barriers, digital literacy barriers, access barriers, and pandemic barriers. Connecting pre-pandemic literature on 2SLGBTQ+ older adults' experiences with social isolation and loneliness to early pandemic data on the general 2SLGBTQ+ population led me to the conclusion that rainbow seniors are more likely to experience barriers with accessing and utilizing ICT for communities and service provisions that are affirming of their gender and sexual identities, as we will see in subsequent chapters.

My dissertation allowed me to further my inquiries into the challenges 2SLGBTQ+ older adults experience with accessing online service provisions. In many respects, rainbow seniors'

experiences with the digital divide may not differ drastically from non-2SLGBTQ+ seniors. However, at the start of this research I anticipated that rainbow seniors would experience greater challenges in locating online social services that are identity-affirming and safe to access. This suggested that a disproportionate number of 2SLGBTQ+ older adults would face initial barriers that could undermine their ICT access from the very start, as opposed to later on a continuum of access points to more specialized supports and technologies. Mossberger et al.'s definition of digital citizenship acknowledges the importance of having the necessary skills to find, understand, evaluate, and use information on the internet (1). Content for heterosexual people is displayed at the forefront of internet searches. Moreover, there are a great many resources and support programs that target general (read heteronormative) older adult audiences. Due to the suppression and marginalization of 2SLGBTQ+ content online, locating relevant, affirming, and accessible queer services via the use of online search engines can be difficult for rainbow seniors who are not digitally literate. The same holds true for 2SLGBTQ+older adults who might have access to safe in-person services and supports, for instance within long-term care homes under quarantine. The Covid-19 pandemic created an immediate need to address and prevent digital divide barriers amongst equity-deserving groups. This research produced the knowledge needed to begin building strategies for mitigating digital divide challenges that 2SLGBTQ+ older adults face. The next section offers an overview of the theoretical frameworks that guide my analysis on how the digital divide impacted 2SLGBTQ+ older adults in Ontario during stay-at-home mandates.

Theoretical Frameworks

My research is an interdisciplinary study that is informed by various theoretical frameworks that supported me in developing my research approach and in analyzing the research data. This section enters into a conversation about why digital divide researchers should consider feminist

and to a lesser extent queer theory in their studies. Intersectionality, the social determinants of health (SDOH), heteronormativity, social constructionism, and an intergenerational approach are all concepts taken up within the feminist and queer theoretical frameworks used for this research. These theories guided the development of my research questions and community needs assessment. Researchers who focus on aging and the digital divide must dive deeper to explore how gender diversity and sexual orientation intersect to exclude rainbow seniors from fully benefiting from culturally informed virtual service provisions, not to mention safe in person, social services, such as programs or resources that promote physical, emotional, and mental health. By applying these theoretical frameworks, I examine how Ontario stay-at-home mandates created new obstacles that made it challenging for 2SLGBTQ+ older adults to manage their health and well-being. This section outlines the benefits and limitations of these theoretical approaches in my research study.

Intersectional Approach

Kimberlé Crenshaw proposed the idea of "intersectionality" in 1989 to describe Black women's experiences with racism and sexism in the workforce because American legal doctrine did not acknowledge the ways in which Black women experienced multiple forms of discrimination. Drawing on the case of *Degraffenreid v General Motors,* Black women filed a suit against General Motors "alleging that the employer's seniority system perpetrated the effects of past discrimination against black women" (Crenshaw 140-1). General Motors argued that they did not have racist or sexist employment practices because they hired white women and Black men. American legal doctrine during this time-period ignored how race and sex-based discrimination can operate simultaneously to oppress Black women in ways that are unlike discrimination against either white women or Black men. General Motors's position represents what is known as a single-

axis framework that erases and distorts the multiple burdens people can experience at once because of the ways in which race, class, gender, sexuality, disability, and aging can intersect. As Crenshaw states, "[t]his focus on the most privileged group members marginalizes those who are multiply-burdened and obscures claims that cannot be understood as resulting from discrete sources of discrimination" (140). Crenshaw's research has been utilized by feminist and queer theorists to critique how liberal discourses of equality and some feminist, antiracist, and queer theories have also erased or failed to capture the oppressions that arise as a result of the discursive intersections of race, gender, and class. To summarize, by coining the term intersectionality, Crenshaw paved the way for nuanced discussions about how privilege and oppression operate through dominant institutional structures that are built to marginalize equity-deserving groups on multiple fronts. Since 1989, intersectionality has become an important and popular theoretical concept that informs theory, method, and practice in many contemporary contexts and social institutions (Davis 79).

Before moving forward, it is important to recognize that Crenshaw was not the first Black feminist scholar to use an intersectional approach to understand systemic inequalities. While she was the first to coin the term intersectionality to define how racism and sexism impacted oppression, it was the Combahee River Collective in 1977 that published a manifesto that incorporated what amounts to the first intersectional framework. According to Kathy Davis,

> As early as 1977, the Combahee River Collective, a black US feminist lesbian group, issued a stirring and highly influential manifesto in which they argued that gender, race, class, and sexuality should be integral to any feminist analysis of power and domination (73).

This manifesto called out white feminist scholars in the late-1970s for excluding a critical race lens from their analysis of power and domination. The collective states that "Black, other Third World, and working women have been involved in the feminist movement from its start, but both

outside reactionary forces and racism and elitism within the movement itself have served to obscure our participation" (Combahee River Collective par 4). As a result of the exclusionary practices within white feminist movements, the National Black Feminist Organization (NBFO) was established to form a separate Black feminist group. According to the collective,

> "Black feminist politics also have an obvious connection to movements for Black liberation, particularly those of the 1960s and I970s. Many of us were active in those movements (Civil Rights, Black nationalism, the Black Panthers), and all of our lives were greatly affected and changed by their ideologies, their goals, and the tactics used to achieve their goals. It was our experience and disillusionment within these liberation movements, as well as experience on the periphery of the white male left, that led to the need to develop a politics that was anti-racist, unlike those of white women, and anti-sexist, unlike those of Black and white men" (Combahee River Collective par 5).

The lack of an intersectional approach in Black liberation, the white male left, and white feminist movements sparked the need for a Black led women's collective that was anti-racist and anti-sexist. Angela Davis is a Black anti-racist feminist scholar who is a prison abolitionist and former member of the Black Panther Movement. In 1981, she published the book *Women, Race and Class*. Her research is critical of white feminist movements and the white male left. Davis is a forerunner to Crenshaw as an anti-racist feminist who was thinking in an intersectional way (140). Moreover, Crenshaw coining the term intersectionality allowed black feminist scholars, and feminists in general to establish a flexible analytic framework that critiques discriminatory discourses in political, social, and institutional spheres.

Intersectionality is critiqued for its instability, leaving room for multiple interpretations of how it is utilized as a theory, method, and practice (Nash "Feminist Originalism" 1). Crenshaw has even stated that her initial use of the term intersectionality was just a metaphor (Nash "Feminist Originalism" 3). Kimberlé Crenshaw writes, "My own use of the term 'intersectionality' was just a metaphor. I'm amazed at how it gets over and underused; sometimes I can't even recognize it in

the literature anymore" (qt in Nash "Feminist Originalism" 3). Nash aims to remove misconceptions about intersectionality by moving it beyond social identities; to recognize the social, political, and economic structures that produce systems of inequalities. It is more about structures and not just about identities, something Angela Davis also understood early on given her Marxist leanings. Nash explores intersectional originalism as a "singular interpretive practice" (Nash "Feminist Originalism" 4). She evolves the concept of intersectionality by explaining "I use the term *intersectional originalism* to describe the commemoration genre's preoccupation with returning to intersectionality's 'inaugural' texts – namely Crenshaw's two articles – and assessing later feminist work on intersectionality by its imagined fidelity to those texts" (Nash "Feminist Originalism" 4). Nash aims to remove ambiguities about intersectionality being a methodology, political, and/or institutional tool by claiming it is not fixed within a singular analytical framework, rather it transforms, moves, morphs, and develops as it moves between political and institutional questions (Nash "Feminist Originalism" 3). There is not a universal way of understanding intersectionality, thus intersectionality is simply a tool that can be theoretical, methodological, and political. In fact, it can be all of these things, as scholars like Kathy Davis claim, in that "paradoxically, precisely the vagueness and open-endedness of 'intersectionality' may be the very secret to its success" (Davis 69). I employ Nash's ("Feminist Originalism" 4) understanding of intersectionality within my critical analysis of how digital platforms are controlled by colonial regimes that privilege white, upper-class heterosexual populations who receive better access to and benefits from digital spaces than underprivileged groups.

Intersectionality is a fluid and integral tool in feminist theory. According to Davis a feminist intersectional approach "encourages complexity, stimulates creativity, and avoids

premature closure, tantalizing feminist scholars to raise new questions and explore uncharted territory" (Davis 79). From my perspective, tantalizing is a unique word choice used by Davis to express how Intersectionality can open new pathways to develop alternative research practices that deviate from and disrupt traditional feminist approaches to knowledge production. An intersectional approach is embedded into both my theoretical and methodological practices to better examine how race, class, gender, and sexuality intersect and shape individual experiences with queerness, aging, and new technologies. For instance, in chapter three I will examine how race and class status reduced or exacerbated digital divide barriers for older 2SLGBTQ+ people. This approach supports me in uncovering digital disparities for rainbow seniors who are shaped by their socioeconomic status.

Excluding intersectionality from an analysis of the digital divide would limit my abilities to convey how digital inequalities and inequities are influenced by geographical and socioeconomic factors. Systems of inequalities continue to be rife within the digital world. The digital revolution has boomed over the last twenty years, offering innovative solutions and technologies that have expanded the way communities connect with one another (Fang, M. et al. "Exploring Privilege" e1). It also opened new avenues for disseminating knowledge about what is deemed 'normal' and 'natural' in Western society, inevitably reinforcing heteronormativity and cisnormativity (Monea 1). Literature on the digital divide demonstrates the potential benefits older adults receive when they are knowledgeable and confident in using ICT. However, social and structural inequalities limit who can access and benefit from digital resources and services. In chapter three and four, this phenomenon is illustrated in the nuances of this research dataset in order to expand on how digital disparities are addressed by researchers, academics, and

policymakers. According to Fang, M. et al. “this knowledge is timely since technology solutions are constantly being developed to improve efficiency in the public sector; particularly as governments move towards an e-governance system where social services and resources are increasingly digitized” (“Exploring Privilege” e9). Scholarship that uses a social justice framework and an intersectional approach to examining the digital divide is scarce, but it is necessary for highlighting the key challenges of the rising costs of living in Canada. Currently, the internet is designed to fully serve consumers in advantageous social positions; however, the internet itself should be viewed as a basic human right that everyone deserves equal access to, and can utilize effectively for their particular needs.

Feminist Political Economy & Social Determinants of Health

Political economy refers to multifaceted institutions and relations that form social, political, economic, physical, ideological, and cultural systems within private and public sectors (Armstrong et al. 5). Social scientists who examine the political economy draw on Marxist perspectives to contextualize the inequalities that exist within neoliberal capitalist global regimes. Feminist political economists have extensively critiqued Canadian health care reform for upholding neoliberal discourses that promote the self-governance of care (Armstrong et al. 5; Whiteside 3). Henwood et al. explain that the mandate of the Province of Ontario’s Ministry of Health Promotion is to “encourage Ontarians to make healthier choices at all ages and stages of life” and to “promote behaviours that improve health” (2026). When the COVID-19 pandemic rapidly spread, news outlets and national campaigns by Health Canada advised people living in Canada about how to safeguard themselves from COVID-19, which included stay at home mandates, social distancing, getting regular exercise, healthy eating habits, and getting vaccinated. While these discourses

encouraged people in Canada to manage their health, efforts to remove health care inequalities and inequities were non-existent. Under a neoliberal market economy, maintaining and managing one's health is viewed as an individual responsibility. Hoppania and Vaittinen emphasize this point, stating that "[a]cross disciplines, feminists have shown a vulnerability, dependency and bodies-in-need challenge to the neoliberal conception of political-economic subjectivity that is based on gendered individualism, disembodied rationalism, and the fallacy of independence" (74). Placing the burden of care onto individuals ignores the fact that 'independence' is a false ideal that veils the extent to which care services, support networks, and access to care management systems are necessary to ensure our individual care needs are met. Neoliberal approaches to health care exacerbate health disparities amongst equity-deserving groups like women of colour, people with disabilities, Indigenous populations, and 2SLGBTQ+ communities. These groups are often impacted by market-based health care reform because they are at a heightened risk of experiencing physical or cognitive impairments and lack the financial means to access necessary care services to help them manage their health.

Public-Private health care systems are an example of how individuals receive different care options based on their socioeconomic status (Armstrong et al. 5). Market-based health care reform aims for the privatization of health care services, which allows people in Canada to choose the type of care they wish to receive. Robert Evans explains how global health care markets are driven by private interest groups that maintain control over 'public' institutions:

> State and private institutions have always interpenetrated each other, to the extent that in most national systems it is often difficult, and inherently arbitrary, to classify a particular institution as "public" or "private." In reality, there is a continuum along the line of from civil service at one end, to the privately owned, strictly for-profit corporation at the other (430).

Both public and private interest groups like the state, private corporations, and wealthy stakeholders have some authority over health services. The distinction between non-profit and profit services has become difficult to differentiate as the state outsources jobs to private companies. For instance, while hospitals are public institutions, many of the services such as laboratories, food services, pharmacies, cleaning services are provided by for-profit corporations. Dynacare is just one example of a for-profit company that provides OHIP covered services to patients. Costs that are not covered by OHIP would be passed to the individual (Dynacare "Our Services"). Additionally, while seeing a doctor is covered by OHIP, the medication they may prescribe is covered by an individual's private insurance or out of pocket. Insight on how public-private partnerships shape Canadian institutions is relevant for understanding how neoliberalism influences how people living in Canada are made personally responsible for having the financial means to opt into the specific services they want or need.

Just like personal health, technology usage is viewed as a personal choice and responsibility. Participating in the digital world requires interest in learning about ICT and only then do individuals embark on a journey to locate tools, resources, and services that enhance their ability to use virtual platforms. The enactment of Ontario stay-at-home mandates limited access to health care, safe shelter, quality food, social services, and community care networks, which created new factors that impeded 2SLGBTQ+ people's abilities to effectively manage their health and well-being. Non-2SLGBTQ+ people are more likely to have access to an abundance of public services, health care providers, and social systems that are affirming of their identities. This gave them an advantage in managing their health and well-being. 2SLGBTQ+ people continuously face

challenges in locating and accessing affordable services and community support networks that effectively assist them in maintaining a quality life.

According to Statistics Canada's 2021 report titled "A statistical portrait of Canada's diverse LGBT2+ communities" highlighted that in 2018, 4% of the nation's population, aged 15 and older identified as 2SLGBTQ+. Using the 2015 and 2018 data from the Canadian Community Health Survey, they claimed that there were 255,100 gay men, 150,600 lesbian women, 322,00 bisexual women, 161,200 bisexual men and approximately 75,000 trans or non-binary people aged 15 and older (Government of Canada "Statistical Portrait"). According to Boulé et al in 2019 Statistics Canada "estimated that at least 155,000 older LGBT adults over the age of 60 lived in Ontario" (237). Data collected and examined by Statistics Canada during the pandemic showed that 2SLGBTQ+ people were more economically vulnerable during the pandemic, with fewer resources to fall back on during a financial crisis, with 41% having a total personal income of less than $20,000 per year. Statistics Canada states that "the average personal incomes of LGBTQ2+ income earners were also significantly lower ($39,000) than those of non-LGBTQ2+ people ($54,000) in Canada" (Government of Canada "Statistical Portrait"). The COVID-19 pandemic contributed to a further decline in 2SLGBTQ+ health, for example, a tenth of 2SLGBTQ+ Canadians are socially isolated, which is a crucial determinant for a whole host of health outcomes (Egale Canada). Statistics Canada in 2021 found that "transgender Canadians were also more likely to report their mental health as poor[er] or fair[er] than their cisgender counterparts, and [were] also more likely to have seriously contemplated suicide in their lifetime" (Government of Canada "Statistical Portrait" par, 24). Additionally, trans people had higher rates of being diagnosed with mood or anxiety disorders compared to their cisgender counterparts (Government

of Canada "Statistical Portrait"). While conducting this research, information relating to COVID's ongoing impact on 2SLGBTQ+ older adults in Canada was scant or unavailable, however the data presented above serves as a starting point for explaining how stay-at-home mandates had various impacts on rainbow seniors' health during the pandemic.

Social determinants of health (SDOH) are used by government agencies to determine whether or not a population is physically and mentally healthy. The Government of Canada refers to the SDOH as a "broad range of personal, social, economic, and environmental factors that determine individual and population health," which includes employment, financial stability, social supports, resources, and the physical environment (The Government of Canada "Social Determinants" par 2). SDOH is used to analyze how a range of personal, social, economic, and environmental factors can influence an individual's health and well-being. Feminist political economists use the SDOH approach to understand how race, class, gender, sexuality, age, and (dis)ability intersect to shape health inequalities (Mulé et al. "Promoting LGBTQ Health" 2; Mulé et al. "Invisible Populations" 235; Comeau et al. 1). Gender and sexual expression are excluded from the Government of Canada's definition of SDOH; however, political economists include this lens in their research to better understand the health inequalities 2SLGBTQ+ populations and other equity-deserving groups experience (Mulé et al. "Promoting LGBTQ Health" 2; Mulé et al. "Invisible Populations" 235).

Including gender diversity and sexual orientation as a key component to SDOH is essential for understanding how 2SLGBTQ+ people experience health inequalities and inequities. According to Comeau et al.,

> Individuals of sexual and/or gender minority are often faced with higher rates of adverse health outcomes when compared to the general population; this includes suicide, anxiety,

> cancer, obesity, and arthritis. They are also more likely to engage in harmful health behaviours, such as substance use and risky sexual conduct (2).

Canadian social services and health care systems were built using colonial cultural ideologies, practices, and political structures that privilege white heterosexual people while marginalizing racialized, gender and/or sexual minorities. As a result, many public institutions follow policies or practices that are inherently racist, heterosexist, and/or transphobic. The stigmatization and discrimination that 2SLGBTQ+ people have experienced when accessing public social services has negative effects on their social, physical, and cognitive well-being, thus creating the need for social services that are developed by and for 2SLGBTQ+ communities (Mulé et al. "Invisible Populations" 235). Non-governmental organizations have formed to raise awareness and provide care to 2SLGBTQ+ communities, like the Canadian Rainbow Health Coalition, Rainbow Health Ontario, and Avenue Community Centre for Gender and Sexual Diversity Inc., but their service delivery is contingent on their ability to secure ongoing funding (Mulé et al. "Invisible Populations" 235). The COVID-19 pandemic heightened and created new barriers for 2SLGBTQ+ populations in Canada insofar as it threatened the funding of services and support like these. A decrease in donations, spending on facilities that were going unused, and unexpected costs due to the COVID-19 pandemic contributed to the financial constraints organizations experienced.

The global pandemic increased individual reliance on safe places that allowed all individuals to work, socialize, and live remotely. Without shelter, steady income, and access to care networks, having a quality life during stay-at-home mandates was incredibly challenging. The Ontario government claims that most Ontario residents have Internet access, but the speed, quality, reliability, and costs vary significantly across different regions in Ontario. Rural, remote, and northern communities continue to lack quality broadband services and in some cases access to

broadband or cellular service is non-existent (Queen's Printer for Ontario). During the global pandemic, digital connectivity became a tool that many people relied on to work, socialize, and to access essential services, but it continued to be disregarded as a basic human right by the Canadian government. Without this access, some people, especially those from equity-deserving groups became further isolated from their communities, which had detrimental impacts on their health and well-being. Experiences with unsafe or unwelcoming service providers has caused older 2SLGBTQ+ people to avoid social and health care service. Scholars have extensively researched the common anxieties rainbow seniors face which include but are not limited to social isolation, loneliness, poverty, faith-based discrimination, and legal concerns (Dubois 195; Boulé et al. 236; Government of Canada "Statistical Portrait" par 44). Due to these anxieties and fears, when rainbow seniors do access health care services, they often conceal their identities to receive quality care (Brotman et al. "Impact of Coming Out" 7; Boulé et al. 237; Ippolito et al. 479; Mock et al. 538). On the other hand, heterosexual people are privileged with an abundance of access to health care and social service providers who are likely to be affirming of their sex, gender, and sexuality. In the context of my research during the pandemic, I predicted that older 2SLGBTQ+ people were reluctant to seek out online service providers because of anxieties and fears of discrimination on the basis of their sex, gender, and/or sexuality.

Rainbow seniors may experience heterosexism, homophobia, and transphobia that may further intersect with racism, ethnocentrism, and classism when accessing social services (Brotman et al. "Health and Service Needs" 192; Boulé et al. 237). Brotman et al state that

> Gay and lesbian patients of all ages report negative reactions from service providers. These include embarrassment, anxiety, inappropriate reactions, direct rejection of a patient or exhibition of hostility, harassment, excessive curiosity, pity, condescension, ostracism,

> refusal of treatment, detachment, avoidance of physical contact, or breach of confidentiality (“Health and Service Needs” 192).

Due to these negative reactions, 2SLGBTQ+ people, especially older adults are more hesitant to disclose their gender identity and/or sexual orientation to service providers. Boulé et al. explain that “having faced a lifetime of oppression and disparate treatment from care providers, informational and institutional erasure, and an atmosphere of silence, older LGBTQ adults may delay seeking care until there is significant distress and may remain hidden once they do" (236-7). Rainbow seniors have long histories of being ignored and mistreated by care and social service providers, making them distrustful of people working in these positions. This social marginalization extends into digital spaces and contributes to the growing digital divide amongst rainbow seniors. When seeking service providers online, 2SLGBTQ+ older adults may not only lack access to devices capable of accessing the internet, reliable internet connections, and knowledge of how to operate online tools and services but they may be situationally forced to disclose or hide their gender identity and/or sexual orientation to benefit from public services. ICT is shown to have positive impacts on older adults, such as enhancing social connection; these benefits are contingent on having the tools, knowledge, and support systems to access and navigate the internet (Mock et al. 537; Seifert et al. “Double Burden” e100). Older adults may require support from friends, caregivers, and family (which can include biological and non-biological kinship ties) to fully participate in the digital world. Like their heterosexual counterparts, 2SLGBTQ+ older adults can experience similar challenges with ICT, such as, technophobia which can heighten anxieties towards accessing resources for digital literacy and access support. I explore how technophobia is experienced by rainbow seniors in chapter four. In the next section, I discuss

how intergenerational approaches to care are social elements that support older adults so that they may thrive both online and offline as they age.

Intergenerational Approach

*In Western society, t*he term 'family' is traditionally associated with biological kinship ties that uphold foundational ideologies of the nuclear family system. These familial systems are typically made up of a mother, father, and two children, ideally a boy and a girl. Extended family traditionally refers to grandparents, uncles, aunts, and cousins. As Jeffrey Weeks et al. explains, "'Family' is a powerful and pervasive word in our culture, embracing a variety of social, cultural, economic, and symbolic meanings but traditionally it is seen as the very foundation of society" (Weeks et al. 9). The nuclear family structure is viewed and even praised by political, social, and cultural institutions because biological kinship ties uphold the 'heterosexual imaginary' which "naturalizes male to female social relations, rituals, and organized practices and conceals the operation of heterosexuality in structuring gender across race, class, and sexuality" (Ingraham 327). Western societies praise and privilege heterosexual people by normalizing biological kinship ties. On the flip side, 2SLGBTQ+ people, especially older adults, are less often connected to their "biological" families. (Brotman et al. "Health and Service Needs" 192).

Generationally, today's 2SLGBTQ+ older adults came of age at a time when society and culture was more overtly heterosexist, homophobic, and transphobic, which caused early and life-long breaks or conflict between many 2SLGBTQ+ and their families. For example, a 65 year-old 2SLGBTQ+ person today would have been born in 1959, a time well before 2SLGBTQ+ people were even recognized as equal citizens under Canadian law. As a result, rainbow seniors are more likely to be estranged or to have complex relationships with their biological family. This is especially true when family members are actively homophobic, heterosexist, and transphobic

themselves. According to Brotman et al. ("Health and Service Needs"), "gay and lesbian elders may be less linked to their biological families or families of origin. Although many do receive support from their biological families (siblings, parents, etc.), many do not" (193). Additionally, there are many rainbow seniors who have children and grandchildren through past heterosexual relationships, which suggests that relationships to immediate and extended family members can vary in closeness. While some rainbow seniors may have positive relationships with their relatives, others are mistreated or even shunned from their biological families. (Brotman et al. "Health and Service Needs" 193; Ippolito et al. 486). Similarly, Trans and gender nonconforming older adults have diverse experiences with kinship, as Ippolito and Witten share that,

> Many of us find that our families are, sometimes after some initial resistance, supportive of us and our identities, and we have many rewarding experiences with them as we age. However, for some of us, it is not possible to create an open and loving experience with our families of origin. Many aging trans and gender nonconforming people begin to construct new or alternative family systems consisting of friends, new dating partners, and even pets. (486)

The complexities of biological relationships for rainbow seniors are such that for many familial ties are not rooted in blood-relations at all. Kath Weston explains that "[f]amilial ties between persons of the same sex that may be erotic but are not grounded in biology or procreation do not fit the tidy division of kinship relations and blood marriage" (3) She uses David Schneider's study on "American kinship" to further explain the traditional symbolism of the familial structure which upholds heterosexual ideologies of kinship being understood as matters of "law and nature" (Weston 3). From Weston's perspective "lesbian and gay relationships seem to cut across these categories of law and nature" (3). While colonial and patriarchal systems often erase chosen families by not recognizing them as "next of kin", 2SLGBTQ+ people often resist hegemonic assumptions about kinship by creating intergenerational families and care networks of their own.

An intergenerational approach is sometimes used to contextualize the significance of interdependent kinship ties. Intergenerational relationships traditionally refer to cross-generational households where children, parents, and grandchildren co-habitat (Punch et al., 2016). It evolved into a way of understanding community ties, and relationship formations that transcend age-based assumptions about friendship and chosen families (Vanderbeck 200-221). However, for 2SLGBTQ+ communities, terms like kinship and intergenerational relationships deviate from these dominant meanings. Kath Weston explains that "families we choose," or families of choice define those relationships that move beyond blood relations (29). Many 2SLGBTQ+ older adults have been rejected by their biological families, increasing their likelihood of having chosen families in their later years. According to Brotman et al., "Older gay men and lesbians often have 'fictive kin' networks made up of partners and friends who act as family" ("Health and Service Needs" 193). Care networks in 2SLGBTQ+ communities are made up of non-biological kinships that 2SLGBTQ+ older adults rely on. Due to the unique formation of these kinship and care networks, integrating an intergenerational approach is essential for dispelling ageist myths and fosters stronger community connections.

I extend an intergenerational approach to my dissertation through my analysis of 2SLGBTQ+ older adults experiences with ICT. I am most interested in their support systems during the pandemic and how their support networks were utilized or unavailable to help them stay connected virtually during the pandemic. In my experience, as an active member of the Senior Pride Network (SPN), I quickly became the 'go to' person for many older members who needed technology support. During the pandemic, when stay-at-home mandates were lifted, but social distancing measures were still in place I met with a trans woman in our group at Glad Day

bookstore for a coffee and technology support session. She emailed me a few days prior to ask for support with fixing her laptop keyboard so we met in-person to troubleshoot the problem together. We spent more time talking and sharing stories than focusing on getting the laptop working properly. This is one of many experiences that have shown me the importance of creating intergenerational relationships. The opportunity to connect, share, and help one another is a priceless moment that can uplift us during times of crisis. These relationships helped me thrive in conducting this research, but this research would not exist without these friendships. For me, ethnographic work that does not include meaningful collaborative research practices should not be carried out. An intergenerational approach is built into my methodology, analysis, and advocacy work all of which is explored further in the remaining chapters.

Theorizing Gender Identity and Queer Politics in North America

Michel Foucault is famously known for critiquing dominant Western discourses of sexuality that socially construct the ideal citizen within colonial frameworks. Through his exploration of sexuality and power, Foucault defined the concept of biopower as the control and power over populations and bodies within the nation-state (Foucault 140). He was interested in how various mechanisms of power and regulation were implemented by medical, legal, educational, and government institutions to control and define bodies as normal versus abnormal. According to Foucault,

> During the classical period, there was a rapid development of various disciplines– universities, secondary schools, barracks, workshops, there was also the emergence, in the field of political practices and economic observation, of the problems of birthrate, longevity, public health, housing, and migration. Hence there was an explosion of numerous and diverse techniques for achieving the subjugation of bodies and control of populations, marking the beginning of an era of bio-power (140).

Capitalism fuelled the industrial revolution which required mechanisms for regulating population movement, growth, and participation in institutional systems. The family, church, schools, hospitals, army, police, and the state are mechanisms that are used to socially construct hierarchies that label citizens of the state as good/bad, moral/immoral, and/or pure/deviant. Sexual regulation is a central component in the policing of people's behaviours: it rewards those deemed as 'good' citizens and punishes those who resist hegemonic norms about sex, gender, and sexuality.

Social constructionism is a theoretical framework for understanding how race, class, gender, sexuality, (dis)ability, and age, among other categories of identity, are defined and shaped by cultural and historical contexts (Christiansen et al. 4; Katz 8). Christiansen et al. define a social construct as "a phenomenon or category created and developed by society through its cultural and social practices" (4). The sex binary, male or female, is an example of a social construct that uses biological determinism to assert a dominant belief that the sex assigned at birth is intrinsically linked to gender. Fausto-Sterling's book *Sexing the Body: Gender Politics and the Construction of Sexuality,* is an analysis of the mythology of binary sex systems and it challenges the idea that scientific discourses are factual in their definitions of sex and sexuality. Her chapter "Dueling Dualisms" (1-30) critiques scientific assumptions about the nature vs. nurture debate that treats sex, gender, and sexuality as dichotomous. The assumption that humans are born heterosexual/homosexual or born feminine/masculine reinforces dualistic stereotypes, such as women being nurturing, delicate and weaker in comparison to men. Fausto-Sterling refutes dualistic claims, explaining that "[o]n the one hand, scientific and popular debates about intersexuals and homosexuals—bodies that defy the norms of our two-sex system—are deeply intertwined. On the other, beneath the debates about what bodies mean and how to treat them lie

struggles over meaning of objectivity and the timeless nature of scientific knowledge" (Fausto-Sterling 9). Feminism and queer theory have extensively argued for a more subjective approach to understanding sex, gender, and sexuality by producing knowledge that unpacks the falsehoods of objective reasoning about bodies and minds (Butler 520; Fausto-Sterling 9; Katz 8; Rubin 168; Warner 8).

The act of 'doing gender' refers to how gender is interpreted and performed by individuals. Judith Butler first conducted her analysis of gender identity in her essay, "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory." She argues that gender identity is a performative act that is "compelled by social sanction and taboo" (Butler 520). Social mechanisms naturalize femininity and masculinity as deeply connected to the sex individuals are assigned at birth. For example, mothers buy pink when they know they are having a baby girl or blue for when it is a boy. The simple use of colors to define a child's gender, even before birth, will set a path of social policing that rewards individuals who perform their gender in the 'right' way. Butler states that "Gender is, thus, a construction that regularly conceals its genesis. The tacit collective agreement to perform, produce, and sustain discrete, and polar genders as cultural fictions is obscured by the credibility of its own production" ("Performative" 522). An individual is not simply a woman, they become a woman through social, cultural, and historical ideas of what being a 'woman' means. The binary systems that are produced by patriarchal and colonial viewpoints are invented to establish a human hierarchy that privileges white able-bodied and wealthy men over those deemed to be 'other.'

Heterosexuality was socially produced as an opposition to homosexuality. The term heterosexuality was non-existent in the United States during the early nineteenth-century, from

about 1820 to 1860 (Katz 8). During the Victorian Era, the concept of "true love" focused primarily on proper procreation, marriage, womanhood, and manhood. The concept of exclusively heteroerotic desires did not emerge until around 1892-1900 (Katz 9). As Jonathan Katz explains, "[i]n the periodization of heterosexual American history suggested here, the years 1892 to 1900 represent 'The First Years' of the heterosexual epoch, eight key years in which the idea of the heterosexual and homosexual were initially and tentatively formulated by U.S. doctors" (Katz 10). This allowed binary systems that proclaimed heterosexuality was normal and natural to emerge, while homosexuality was deemed perverse and deviant. These either/or definitions policed people's sexualities and shamed them if they deviated from non-normative sexual ideologies. Ingraham contributes to this discussion to assert that cultural symbols like weddings, valentine's day, and popular media indoctrinate people from a young age to participate in heterosexual desires. Ingraham states that "our sexual orientation or sexual identity – or even the notion that there is such a thing – is defined by the symbolic order of that world through the use of verbal as well as non-verbal languages and images" (303). The symbolic order maintains dichotomies between normal and abnormal by assigning certain symbols and/or stereotypes to those who choose to deviate from heterosexual ideologies. Alfred Kinsey's research, which was conducted in the mid-1940s disrupted the social and historical division of people into heterosexuals and homosexuals and paved a new path forward for dismantling hegemonic colonial assumptions about sex, gender, and sexuality (Katz 15). Queer theorists disrupt, dismantle, and redefine how categories of identity are defined and understood allowing fluidity in how people construct their own meanings of sexual orientation and gender diversity.

Heteronormativity is normalized through the stigmatization, criminalization and discrimination of gender and sexual diversity. Warner explained in his book *The Trouble with Normal: "Sex, Politics, and the Ethics of Queer Life* how children are raised in families where they think of themselves and family members as heterosexual. This results in "a profound and nameless estrangement, a sense of inner secrets and hidden shame" (Warner 8). Growing up, many people, including myself, were taught that our peers are heterosexual unless they say otherwise. This phenomenon is known as 'compulsory heterosexuality,' a term coined by Adrienne Rich in the 1980s to explain how in Western cultures, there is a broad societal belief that people are born heterosexual and that heterosexuality is the most natural form of sexuality (631), which can lead others to assume everyone is heterosexual. Educators, medical providers, and legal institutions failed to acknowledge the existence or legitimacy of gender and sexual diversity, often reinforcing heteronormative belief systems by pathologizing or criminalizing queer people.

In light of all of these forces like bio-power, gender performativity, compulsory heterosexuality, and homonormativity it is easier to understand how and why 2SLGBTQ+ people, especially minority groups like rainbow seniors, people with disabilities, people of color, and 2-Spirit folks are cautious about accessing service, including digital service that are not explicitly queer-friendly. Many 2SLGBTQ+ people have limited access to affirming spaces that offer opportunities for exploring sexual identities, and failing to be fully recognized as their whole selves can produce a deep sense of shame that is difficult to erase (Warner 8). Rainbow seniors are very familiar with this shame. They grew up during eras in which 2SLGBTQ+ human rights were much more limited or non-existent in Canada (Brotman et al. "Health and Service Needs" 196; Nash "Contesting Identity" 116). Gayle Rubin states that "the criminalization of innocuous behaviours

such as homosexuality, prostitution, obscenity, or recreational drug use is rationalized by portraying them as menaces to health and safety, women and children, national security, and civilization itself" (163). The enactment of 2SLGBTQ+ legislation in North America has not resolved dominant conservative assumptions about gender and sexual diversity. Rather, it has created new methods of surveillance and for policing queer content in an effort to reinforce heteronormativity and cisnormativity. Moving forward, I extend queer theoretical frameworks to explore how heteronormativity and compulsory heterosexuality are being reproduced in the digital world. I engage with queer scholarship that takes up concerns with how colonial and patriarchal ideologies are rapidly becoming ingrained within digital infrastructures.

Homonormativity, like heteronormativity, seeks to normalize lesbian, gay, bisexual, and trans people's experiences. Lisa Duggan coined the term as "a politics that does not contest dominant heteronormative assumptions and institutions but upholds and sustains them while promising the possibility of demobilized gay constituency and a privatized, depoliticized gay culture anchored in domesticity and consumption" (176). In sum, homonormative practices and beliefs support the assimilation of LGB people into dominant mainstream cultural, political, economic, and social systems. I only use the acronym LGB in this instance, because many Two-Spirit, trans, non-binary and gender-nonconforming people continue to experience racism, sexism, heterosexism, classism, and ableism, within queer communities, which jeopardizes their ability to safely participate in queer spaces. Catherine Jean Nash's example of gay politics during the 1970s in Toronto captures the divisions within queer movements stating,

> Toronto's first gay organizations were decidedly assimilationist in their perspective. Both the University of Toronto Homophile Association (UTHA) and the Community Homophile Association of Toronto (CHAT), founded in the early 1970s, argued publicly that

> homosexuals were essentially the same as heterosexuals for the modest difference reflected in their choice of sexual partner ("Contesting Identity" 119).

The mainstream gay movements of the 1960s, 1970s, and 1980s prioritized across North America full integration into dominant colonial cultures (Duggan 176; Nash "Contesting Identity" 119) are heavily critiqued for excluding women, racialized people, newcomers, and disabled people. Warner states

> Many gay men and lesbians who now say that they want marriage seem to focus on the way it confers, in their view, respectability and public acceptance. Often, they do not even mention the extensive slate of legally enforceable benefits, entitlements, and obligations that come with marriage. To them, marriage is a statement (99).

Gay liberationists were anti-assimilationists because they refuted the traditional ideologies of marriage, family, and procreation. Many queer theorists were gay liberationists and had a broader perspective on social justice that included women, BIPOC and trans people (Altman, 1993 50; Mulé "Politicized Priorities" 80; Warner 81). While the broader gay movement is most visible historically, grassroots and anti-assimilationist groups have always existed. While mainstream queer communities now claim to be welcoming for all, homonormative practices of discrimination have appeared on the Internet.

Boystown, located in Chicago is known as the "designated gay neighborhood" (Blair 287). Blair's article "Boystown: Gay Neighborhoods, Social Media, and the (Reproduction of Racism)", explores how white neighbourhood residents organized to secure an exclusive neighbourhood by criminalizing and policing low-income Black and Brown youth through both digital and physical practices (Blair 288). Using Facebook, residents were able to create a virtual neighbourhood watch group, where they could share stories, photos, and videos of things they deemed suspicious. Blair

explains that “photographs from the walk were showing up on blogs, residents’ Facebook pages, Lakeview 9-1-1. Boystown residents and business owners were soon assembling an online spectacle, where LGBT youth and transgender women of color were disproportionately represented, making them symbols of crime, undesirable behaviour, and violence” (294). Homonormative ideologies that reinforce beliefs about whiteness, citizenship, and colonialism allow systemic inequalities to be reproduced and weaponized against marginalized people. Digital communities, like physical community hubs can use exclusionary policies and practices to create spaces that are only welcoming to some queer people while unsafe for people who do not fit within the groups’ culture. Using homonormativity in my analysis of rainbow seniors’ experiences with ICT will allow me to contextualize why certain community members had more access to and knowledge of the internet in contrast to others.

Queer Identity, Politics, and Digital Citizenship

The development of the internet created new avenues for people to make personal interest communities and to share ideas. The book *The Digital Closet: How the Internet Became Straight* by Andrew Monea is a deep dive into how colonial and patriarchal ideologies are embedded in internet laws, codes, and practice (Monea xiv). In the early 1990’s, the dot.com revolution brought about new information streams that entailed no virtual borders or applicable laws. It gave some people access to digital spaces in the privacy of their own homes. The internet was an unregulated space where anyone could develop a webpage to host their favourite content. Violet Blue’s experience with the internet in the early 2000s exemplifies this:

> A millennium ago, back in 2003, I formed an online group for women to discuss pornography on a now-defunct and mostly forgotten footnote of a website called Tribe.net. The premise of the group was that some women liked porn, some did not, others were curious, and some were offended by it: I wanted a place where we could talk about all of

> these things as explicitly (or not) as we felt. We called it the "Smart Girls' Porn Club" and it was trans inclusive. (Monea ix - x)

Blue goes on to share the success of the group, how it inspired a book, and she was even featured in *The Oprah Winfrey Magazine* and on Oprah's talk show, *The Oprah Winfrey Show* (Monea ix - x). Blue acknowledges the openness of the internet during this time period, stating that "the internet back then felt like a weird, wonderful, creative, and exciting place for new discoveries, filled with art, provocative writing, and connection" (Monea ix - x). However, this open world was short lived and soon morphed into the rigid spaces we have today. The internet we have today reinforces heteronormativity and cisnormativity on various social media platforms like Facebook, Instagram, and X (formerly known as Twitter) that claim to be welcoming to everyone (Monea 3).

The internet is not an inclusive utopia that is welcoming to everyone. One reason for this is that mainstream social media outlets exist to extract user data and track behavioural patterns to sell to corporations so that their corporate sponsors can manipulate consumer habits. Platforms like Facebook, Instagram, TikTok, and X (formerly Twitter) use algorithms that favour extreme and hateful content because it leads to more user engagement and higher profits. These platforms are in charge of what content is deemed acceptable and unacceptable on their platforms. Many aspects of sexual life, sexual identity, and sexual expression are treated as abnormal to the extent that they deviate from heteronormativity, and as a result, they may be heavily censored (Monea 55). This can even include inexplicit same-sex displays of affection or queer artwork containing mild nudity. The algorithms do not deem similar acts of affection or nude art between a man and a woman as a violation of censorship policies. Often,

> The digital closet personae of LGBTQIA+ people are forcibly stripped of all sexual expressivity after having been pornographied, and they are forced to digitally segregate that aspect of themselves from their everyday online existence. To not have your account

> banned, to not have your content censored, to not find yourself demonetized, or, in short, to participate in this new Internet-mediated world of yours, you must relegate a certain part of your body to the digital closet (Monea 181).

Self-censorship and internet censorship work simultaneously to minimize the existence of queer, trans and non-binary people online. Our lived realities are routinely hidden from mainstream outlets or are heavily censored to reach a limited audience. In contrast, content that reinforces and affirms heteronormativity and cisnormativity is rewarded by being heavily promoted. This censorship leads to less access to the spaces that rainbow seniors might need to find like-minded communities.

Queer politics aims to dismantle heteronormative, heterosexist, and colonial ideologies that have marginalized and denigrated *other* sexual, sexed and/or gendered subjects (Cohen 438). Cathy J Cohen's text "Punks, Bulldaggers, and Welfare Queens," is a critique of power and authority within queer movements along with how queer movements can improve how they practice inclusivity and diversity (441). Homonormative ideologies create a division of social groups within queer communities, in which white, middle-to-upper class queer folks experience less barriers to political, economic, and economic social systems (Cohen 442). As such, the need for grassroots and accessible spaces persists online as it does in the real world. I incorporate a queer political framework (Cohen 440) to explore how grassroots advocacy work, knowledge mobilization, and community care challenges inaccessible digital resources by imagining a digital world where online access is not reserved to the privileged class. Addressing, mitigating, and removing digital divide barriers became a collective problem for racialized, disabled, and older queer communities during stay-at-home mandates but largely went unaddressed or was ignored by many service providers. Access to queer-inclusive digital literacy and device lending initiatives

were necessary for 2SLGBTQ+ older adults who rely on culturally informed services during times of crises, however these types of services were uncommon in Ontario.

In using Nash's lens of intersectionality, developing initiatives, and programs online for 2SLGBTQ+ communities must contend with the systematic inequalities that limit rainbow senior access to ICT. Nash's work shifts the focus from identity politics to how social, political, and economic structures produce systemic inequalities ("Feminist Originalism" 4). Nash's work informs my analysis in chapter four to examine the flaws and failures of online service provisions during the pandemic. For example, who is creating the online service, what platform it is being offered on, who can access and participate in the service, and who cannot. Larger 2SLGBTQ+ organizations who serve rainbow seniors quickly shifted to online programming during stay-at-home mandates but did take into consideration the struggles this population would face with participating in the digital world. I use feminist and queer politics to inform my analysis of how power and authority continued to operate digitally by granting access and opportunities to privileged queer communities while marginalizing racialized, disabled, and older queer groups that struggled to be active participants in social, political, and institutional systems during lockdowns. While many online spaces were quickly created by service providers for queer communities, the slow response time in addressing and mitigating digital divide barriers amongst equity-deserving groups needs to be acknowledged. This analysis highlights the challenges rainbow seniors faced with accessing and participating in online spaces and how their intersecting social identities perpetuated barriers to online access. I extend Cohen's work to my analysis to explain how privilege flows through queer movements and even those that claimed to be inclusive

during the COVID-19 pandemic, failed to recognize and hold themselves accountable for their shortcomings (Cohen 441).

Conclusion

This chapter provided a literature review of aging and digital divide scholarship, which supports my claims that digital divide scholarship that uses an intersectional lens to include gender/sexual minorities is scarce. However, this literature is useful for understanding how rainbow seniors experiences with the digital divide are shaped by their gender and sexuality which also intersects with their race, class, age, and (dis)ability. In chapter four, through an analysis of my survey findings, I will identify how ICT experiences are not monolithic by showing the unique challenges older 2SLGBTQ+ people face. As a community-based project, the feminist and queer theoretical frameworks explained in this chapter assisted me in identifying and contextualizing key gaps in digital divide scholarship to demonstrate the significance of bridging the digital divide in 2SLGBTQ+ communities, especially amongst rainbow seniors. . By examining how heteronormativity and homonormativity are extended to the digital world, I can unpack why rainbow seniors have unique digital literacy and access needs. Using an intersectional approach will show that even within rainbow senior groups, some people are privileged with access to and knowledge of the internet while others are not. The community needs assessment is beneficial for determining the digital literacy and access needs of rainbow seniors. . It will contribute to the development of more research on the Queer digital divide and will hopefully improve common practices for addressing 2SLGBTQ+ older adults' needs with digital access during and after the global pandemic. In sum, this chapter lays out the frameworks that inform my research approach and analysis by explaining how societal and structural barriers to ICT were present pre-pandemic and how stay-at-home mandates exacerbated ICT challenges for rainbow seniors during stay-at-

home mandates. Advocating for digital equality, equity, and inclusion will improve the health and well-being of 2SLGBTQ+ older adults during and post the COVID-19 pandemic.

Chapter Three

Queering the Digital Divide: Needs Assessment

This chapter explains the research approach and methods used to gather data on rainbow seniors' experiences with accessing and utilizing online service provisions during the pandemic. It is divided into three sections: research questions summary, describing the study approach, and a methods overview. This chapter discusses some of the research outcomes but chapter four provides a more in-depth analysis of my findings. This is a mixed-method study that uses quantitative and qualitative analysis. It employs a participatory-action research (PAR) approach to explore rainbow seniors' experiences with digital literacy and access barriers. The next section summarizes my research goals.

Research Questions Summarized:

How did the digital divide heighten rainbow seniors' reliance on ICT during the pandemic? Who is responsible for addressing the digital divide? Are rainbow seniors' technological needs different when compared to the heterosexual population? What do 2SLGBTQ+ service providers need to know about rainbow seniors' technological needs? What is the significance of understanding the digital divide through an intersectional feminist and queer lens? Before the pandemic, older adults experienced barriers to learning and using new devices. Technological challenges were more common with the implementation of government stay-at-home protocols; thus, it is important to understand 2SLGBTQ+ older adults' experiences with ICT during the pandemic. My goal was to contextualize the intersections between aging, queerness, and ICT to identify the fundamental barriers rainbow seniors in Ontario experience when accessing online

resources and service provisions during the pandemic. I was interested in how satisfied 2SLGBTQ+ older adults were with their access to and usage of technology to participate in online activities and services. The objective of this survey was to collect data on how the digital divide impacted 2SLGBTQ+ older adults, to record common challenges to accessing and using ICT, and to suggest possible solutions for addressing these challenges, all of which could support organizational leaders in meeting the digital needs of this segment of the population. The data collected can be used to inform how service providers address the ICT needs of the communities they serve and how to mitigate digital divide barriers, especially during times when stay-at-home mandates are enacted.

Research Design & Method:

Study Approach:

Ethnography is a research method that emerged from anthropology and was adopted by sociologists to conduct qualitative research. It is a process for collecting and analyzing the experiences of a specific population or group of people, including their social interactions, beliefs, and behaviours (Naidoo 1). Traditional ethnography is a critical interpretation of experience that is constructed through the researcher's lens. Feminist ethnography is reflective and critical of how power-relations unfold among a researcher and subjects of study. Davis and Craven explore the concept of feminist ethnography, explaining that it "attends to the dynamics of power in social interactions that *starts* from a gender analysis" (92). Feminist ethnographers use interdisciplinary approaches for producing knowledge about people, cultures, and situations with attention to how power differentials and inequalities are reproduced in feminist research practices (Davis and Craven 92-3). There is not a singular method for 'doing' ethnography, rather a number of approaches are utilized by researchers to recognize the benefits, barriers, and limits of their chosen

method(s) (Davis and Craven 92). One method used by feminist ethnographers to collaborate with research participants is called Participatory Action Research (PAR).

To centre the perspectives and lived experiences of 2SLGBTQ+ older adults in my research, I use PAR methods (Davis and Craven 92-3). This approach entails that rainbow seniors, in this instance, be situated subjects or as experts on their own experiences rather than treating them merely as objects of research. By using a PAR approach, I worked with community members and organizations to contextualize the day-to-day challenges rainbow seniors experience in accessing online service provisions. PAR research is a component of feminist ethnography work that, rather than observing communities from afar, involves working collaboratively with participants to produce social change (Davis and Craven 92). According to Davis and Craven, PAR researchers "seek guidance on issues of importance to the community and/or return transcriptions of interviews to participants for edits, comments, and to inspire further conversation" (Davis and Craven 92). As a quantitative study, participants had the opportunity to review their surveys prior to submission. However, respondents themselves were not consulted further for this project. Instead, I formed a research advisory committee that included community members in the development of the original survey questions. The advisory committee consisted of four rainbow seniors. All members were from Ontario, with three living in Toronto and one in Waterloo, who responded to a flyer (Appendix B). The committee members were all fifty-five plus and consisted of one gay man of colour, two white trans women, and one Two-Spirit elder. They were asked to review the survey, provide written feedback, and to attend a two-hour meeting to discuss the feedback. We met as a group twice over a four-week period and in-between meetings we corresponded in email. Our first meeting focused on sharing information about the research study

and answering any questions they had. After that, I sent them the Queering the Digital Divide (QDD) community needs assessment for review and feedback. Our final meeting was held in early September 2021, which focused on discussions of the feedback review and how I would integrate their feedback into the final copy of the QDD community needs assessment. This meeting gave them an opportunity to provide their input on how to effectively collect data that reflects rainbow seniors' concerns and challenges with ICT. Advisory committee participants received a twenty-dollar honorarium for their time, knowledge, and insights. Their input was invaluable for creating a collaborative approach to develop the QDD community needs assessment.

I used qualitative-quantitative research methods to conduct the QDD community needs assessment by means of an online call for participants and survey (See Appendices C and D). The online survey was hosted on SurveyMonkey and consisted of 33 questions. The survey was semi-structured with multiple-choice questions and short answer comment boxes, allowing participants to elaborate on their experiences with the four key barriers. The entire online survey was divided into five sections: preliminary questions, environmental barriers, connectivity barriers, digital literacy barriers, and pandemic barriers. Upon completing the community needs assessment participants received a twenty-dollar honorarium. Quantitative research in and of itself is not usually an incentive that attracts participants, however, as shown in Chapter Two, 2SLGBTQ+ people are more likely to be socioeconomically disadvantaged, especially during the pandemic (Mock et al. 537). The experiences of rainbow seniors are valuable and they should be treated as knowledgeable sources on the challenges their communities face. Given this, I thought it was essential to include a generous incentive that recognized their contribution and expertise. Partnering with Buddies in Bad Times Theatre (also referred to as Buddies Theatre) for funding

support made it possible to offer a generous incentive. I elaborate on this further under the funding and partnership section of this chapter. Incentives were offered to all participants, but some participants opted out of receiving the incentive which allowed me to collect extra responses.

Social scientists often use online questionnaires for gathering information from a wide range of people. Quantitative research does not require recorded interviews, which makes it less time consuming for both the participants and the researcher. Its methods can offer participants flexibility in how they choose to complete the study, and responses can be done in the safety and comfort of respondents' homes. Additionally, it allows for participants from across different regions to give their input. The disadvantages of an online survey is that it does not provide clarification on the participants' thought processes, it does not allow for outcomes garnered through the dynamics of human discussion, and it possibly limits the ability to ask follow-up questions that can lead to more robust data. I mitigated these drawbacks by adding a qualitative component to the survey using short answer boxes. This allowed participants to expand on the multiple-choice questions if they chose to do so. The Research Ethics Board at York University approved this research on August 12, 2021 (Appendix C). The Queering the Digital Divide questionnaire was circulated in October 2021 (Appendix D).

Despite the benefits of quantitative research, conducting an online questionnaire during Ontario stay-at-home mandates was challenging, but it was also the safest option. The ability to distribute physical flyers or posters in public spaces in which seniors are likely to congregate (e.g., community hubs, senior centres, libraries, coffee shops, and residences) was incredibly limited during the stay-at-home mandates. As a result, community bulletin boards were unavailable, so I relied on my social networks to reach rainbow seniors. Calls for participation (Appendix E) were

distributed online, through social media channels and listservs. This choice to use technology to survey a population with lower levels of digital efficacy is obviously contradictory, but this decision was determined by Ontario stay-at-home mandates, during which time researchers were forced to balance public health safety with research accessibility. While I tried to mitigate this by offering physical copies of the community needs assessment to rainbow seniors who requested it, it still limited my data collection.

The income options for this survey were intentionally limiting because my objective was to survey low-income rainbow seniors. I acknowledge the majority of the wage options in the QDD survey are below a comfortable living wage (Coleman 6). The Ontario Living Wage Network (OLWN) is a non-profit organization that is a "network of employers, employees, non-profits, researchers, and proponents of decent work standards for all Ontario workers." They suggest using their National Living Wage Framework to give people the power to calculate their local living wage rate. The framework suggests that in order to live a quality life in Canada, people living in Canada must earn the wages outlined in the National Living Wage Framework. Canadians who earn below the framework are more likely to be low-income and will struggle to afford basic necessities such as food and shelter. To calculate a liveable wage, I multiplied the hourly rate by thirty-five hours a week to get a weekly total then multiplied the weekly total by fifty-two. According to the OLWN rates (Living Wage Rates), in the Greater Toronto Area a liveable wage is $25.05 an hour which equals to $45,591 annually. In Ottawa, the rate is $21.95 an hour which equals to $39,949 annually (Living Wage Rate). The Ontario mandatory minimum hourly rate is $16.55 which is what many people make in the service industry (Living Wage Rate). While service industry workers may make tips that increase their income, that does not mean they are earning a

liveable wage. I am drawing on the National Living Wage Framework to illustrate that the cost of living in Canada is not keeping up with wage increases and that makes equity-deserving groups like 2SLGBTQ+ people more likely to fall below the poverty line.

As I reflect on the data collection method, I recognize that different approaches could have been implemented to capture rainbow seniors' experiences with the digital divide. Conducting a second qualitative phase of the research alongside the initial survey could have generated more insightful data. The second phase could have included one-on-one zoom interviews with select participants from the online survey. This would have involved asking participants if they wanted to opt into a one-on-one interview discussion, following up with them in email to set an interview date, and meeting with them over Zoom. If I had integrated a second phase, it may have opened up a deeper dialogue about digital divide challenges and it would have allowed me to ask clarifying questions about participant survey responses. In hindsight, this approach would have been fruitful for my data collection, however, I recognize that the COVID-19 pandemic came with many challenges, including personal and professional impacts on my own physical and mental health.

As a graduate student, I was unaware of the online threats to quantitative online surveys. In October 2021, I began circulating the online survey. In under 2-hours, I received an overwhelming number of responses (192). My first instinct was to close the survey submissions and to explore the data. False entries clearly stood out in the dataset because they had duplicated IDs, they were completed in very short periods (under 5 minutes), and the answers survey responses were redundant across several survey responses (i.e. the participants were answering the questions in the exact same way). As a result, I had to implement several strategies to eliminate false entries. I used an Excel spreadsheet to search IP addresses that submitted multiple surveys.

Those were eliminated first. Duplicate emails were eliminated next. Then I used the website WhatismyIP to review the remaining IP addresses. This allowed me to ensure all participants were located in Ontario. I acknowledge that some participants may use a Virtual Private Network (VPN) when using the internet in order to protect their identity and data online, but for research purposes, I had to eliminate all survey responses with IP addresses outside of Ontario. Once I eliminated the compromised data to the best of my ability, I enabled an IP feature to block any further submissions from the same IP address. I chose primarily to share the survey with local 2SLGBTQ+ organizations and 2SLGBTQ+ individuals. Lastly, I password-protected the survey. These steps ultimately ensured that the data collected was collected from rainbow seniors in Ontario.

Online questionnaires require additional pre-screening protocols to ensure the quality of the data. Researchers should consider an online pre-screener as a first step before sharing the online survey with research participants. Pre-screeners can be performed in-person, over the phone, or online and it allows participants to answer preliminary questions that will indicate if they fit the participant requirements, are not a bot, and qualify to take the full survey. Once respondents complete this, then and only then should the researcher send the survey to the research participant. For additional protection, researchers can safeguard the survey using a password. This may deter uninvited folks from responding inauthentically just to receive the incentive. Researchers should consider using targeted methods for circulating surveys to community members, especially during times of crisis when stay-at-home mandates are enacted. This can include but is not limited to: physical flyers in community spaces, using local networks for sharing information, and attending programs that serve the research participants you want to target.

Search Strategy

The eligibility requirements for this study were as follows: people aged fifty-plus, people who experienced one or more digital divide barriers, people who identify as 2SLGBTQ+, and people residing in Ontario. Older adults are socially constructed by governments and other agencies as being sixty-five and older. Additionally, as mentioned in chapter one, community social programs like the Older 2SLGBTQ+ Adults Program at the 519 Community Centre in downtown Toronto advertises their participation criteria on social media as fifty-plus (The 519). While older adults are often considered fifty-five plus, I lowered the age requirements for my needs assessment to include fifty-plus rainbow seniors because they were more likely to have grown up without ICT and may also experience ageist assumptions about their ability to access and benefit from the Internet. Upon request, I provided participants with a mailed hard copy of the survey if they were unable to access the survey online. It was important that participants who received the recruitment poster had an offline method for inquiring about the survey. As per ethics requirements, including my personal phone number on recruitment materials was not allowed. To mitigate this, requests were made by email or by contacting the Gender, Feminist and Women's Studies Department at York University. The phone number of the department was available on the recruitment posters (Appendix D).

Distribution:

On October 4th, 2021, I circulated my survey with organizations and on social media. I used three approaches to recruit research participants: social media advertising, network sharing, and the 'snowball technique' (also known as snowball sampling). Researchers use snowball technique to access participant networks and to increase their odds of including people of similar backgrounds (McCormack 477). 2SLGBTQ+ people are already a marginalized group, and

researching a subgroup within that group can be incredibly challenging (Hartmen et al. 65, McCormack 476). This is especially true during a global pandemic when rainbow seniors were heavily disconnected from community groups and service providers. Study participants were encouraged to share the survey information with others who may qualify. In addition to the 'snowball technique' I shared my recruitment poster with several groups for 2SLGBTQ+ communities on Facebook. This was one of the primary avenues for recruitment and both younger and older 2SLGBTQ+ community members shared it with rainbow seniors who qualified. Organizations partnered with the study shared the recruitment poster with their listservers and newsletters. This assisted me in reaching participants beyond Toronto, especially rainbow seniors living in rural Ontario. Due to my initial struggles with having my survey exploited by online trolls who did not fit the eligibility requirements and blatantly lied in their responses, I changed my recruitment strategy. Participants who completed the survey were invited to share it with their social circles. This led to quality responses that will support me in answering my research questions. Notably, one participant who required a hard copy found out about the survey through another participant. I omitted a survey question that asked participants about how they found out about the survey because I was not aware of the benefits of asking this question. In the future, this is a question I would include to gain better insight into how participants learned about the research study. I concluded the dataset on January 30, 2022 with 51 surveys completed.

Funding and partnerships:

This research was funded by Buddies Theatre who supported the development of a research advisory committee that informed this project. While they are an arts-based organization, they also run programs that are for and led by rainbow seniors, such as the Youth/Elders project. One of the

staff at Buddies was aware of my research and shared with me that they had funding from the Arts Council of Canada to support community-based research projects. I sent a funding request letter to Buddies Theatre that outlines my research project and how it would benefit them with improving their rainbow senior programs, which operated online during the pandemic. Attending community programs like the dialogue series, *In Conversation,* opened up the opportunity for my research to be funded by Buddies Theatre. The communications and outreach manager of Buddies Theatre wrote a letter of support for the York University ethics committee, which outlined our relationship for this research (Appendix F). They agreed to provide monetary support to the research project which supported honoraria for research participants and the cost of subscribing to SurveyMonkey. Collaborating with organizations like Buddies Theatre was critical for me to achieve my outreach objectives during stay-at-home mandates.

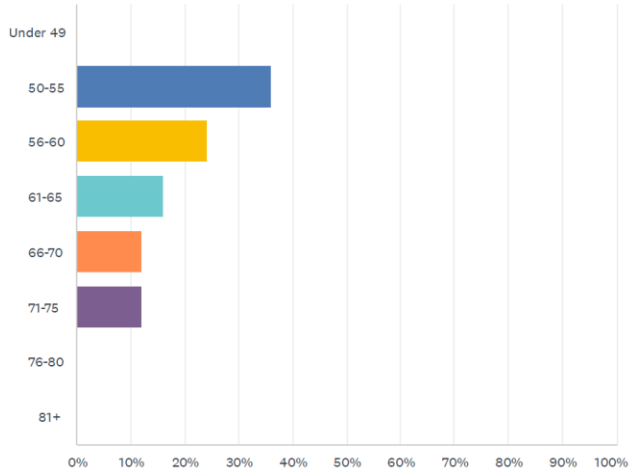
I collaborated further with community organizations and allies to develop research goals that directly addressed 2SLGBTQ+ older adults' concerns with social isolation and loneliness during and in the recovery period surrounding the COVID-19 global pandemic. Beyond Buddies in Bad Times Theatre, I worked with several community organizations that agreed to assist me in circulating the recruitment poster. These organizations included the Senior Pride Network (SPN), Rainbow Faith & Freedom (RFF), the Aids Committee of North Bay (ACNB), and CAYR Community Connections, and Connected Canadians. These organizations are familiar with my research and were excited about the prospect of gaining more concrete insight into the barriers 2SLGBTQ+ older adults experience with accessing remote service provisions during the global pandemic. The survey was also posted to the Ontario Digital Literacy and Access Network website for the duration of the data collection phase.

Quantitative Survey Findings:

The online study concluded on January 31, 2022. There were 69 completed surveys with 51 qualified participants. Disqualified candidates and incomplete surveys were removed from the dataset. Candidates that were automatically disqualified were outside of the survey's age range or were not located in Ontario. This left me with 51 surveys for assessment. This section summarizes the survey's quantitative findings. As a community-based researcher, it is important to me that I present my research in a way that will be accessible to non-academic audiences. For this reason, I include both charts and text summaries of each chart in the subsequent sections.

Demographic Information:

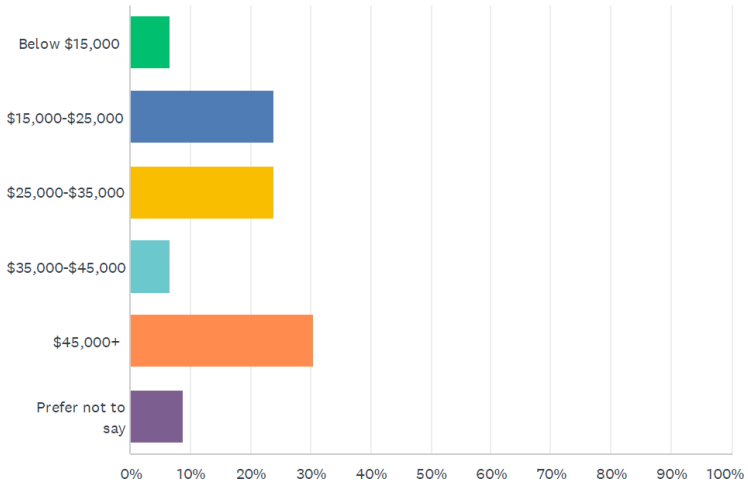
Table 1: Age Range



Question: What is your age?

The age range of participants is as follows: 35% (18) were aged 50-55. 24% (12) were 56-60. 16% (8) were 61-65. 14% (7) were 66-70. 12% (6) were 71-75. Zero participants were above the age of 76. See Table 1 above.

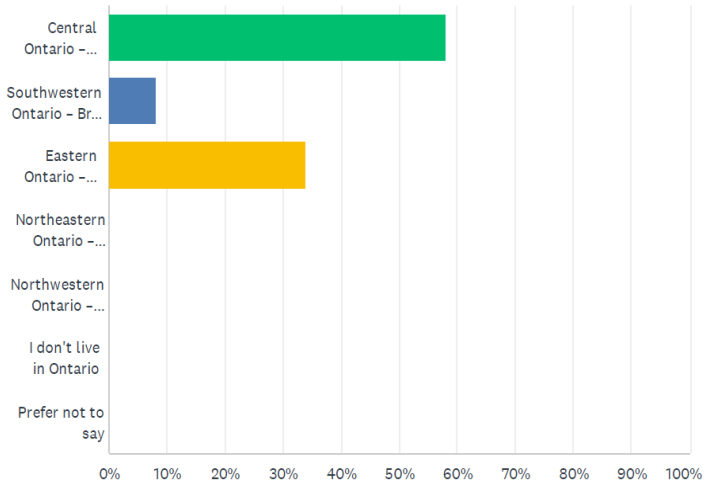
Table 2: Household Income



Question: What is your household income?

Participants reported the following household income: 6% (3) reported below $15,000. 23% (11) reported $15,000-$25,000. 23% (11) reported $25,000 - $35,000. 6% (3) reported $35,000 – $45,000. 30% (14) reported more than $45,000. 11% (5) of participants preferred to not disclose their household income. See table 2 above.

Table 3: Location

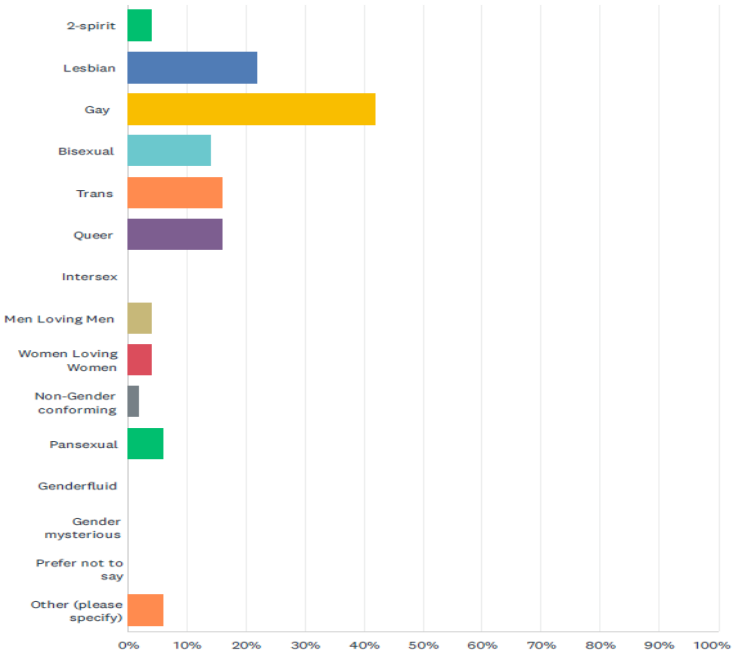


Question: What region in Ontario are you located?

Participants indicated they lived in the following regions: 59% (30) lived in Central Ontario. 8% (4) lived in Southwestern Ontario, and 33% (17) lived in Eastern Ontario. Rainbow

seniors from Northeastern and Northwestern Ontario did not participate in this study. All the participants resided in Ontario, which was required to participate in this community needs assessment. Participants who did not live in Ontario were disqualified from this study. See table 3 above.

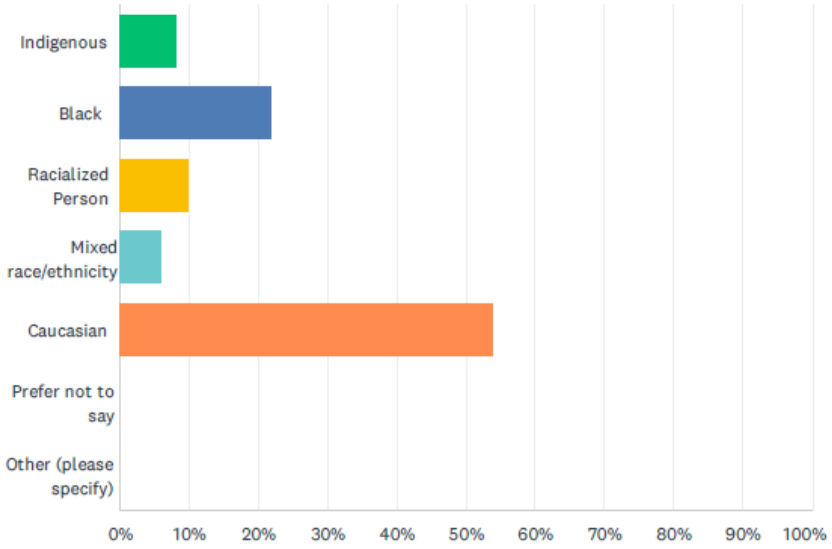
Table 4: Gender and Sexual Orientation



Question: How do you identify on the 2SLGBTQ+ Spectrum? Click all that apply to you.

Participants were asked to identify on the 2SLGBTQ+ spectrum. Options included: 2-Spirit, lesbian, gay, bisexual, trans, queer, intersex, Men loving Men, Women loving Women, non-gender conforming, pansexual, gender fluid, gender mysterious, prefer not to say and other. When responding with “other”, participants were asked to specify their orientation. See table 4 above.

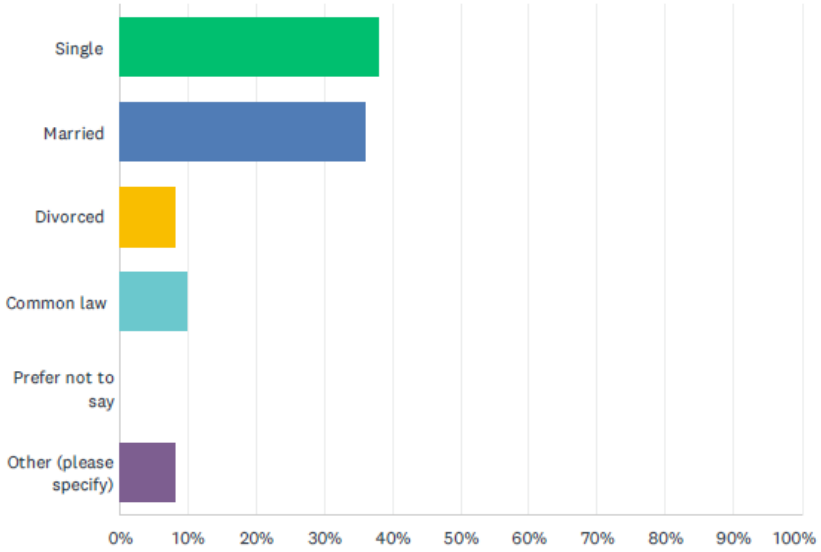
Table 5: Ethnic Background



Question: What is your ethnicity?

Participants were asked to share their ethnicity. 8% (4) identified as Indigenous. 22% (11) identified as Black. 10% (5) identified as racialized people. 8% (4) were mixed race/ethnicity and 53% (27) were Caucasian. See table 5 above.

Table 6: Marital Status

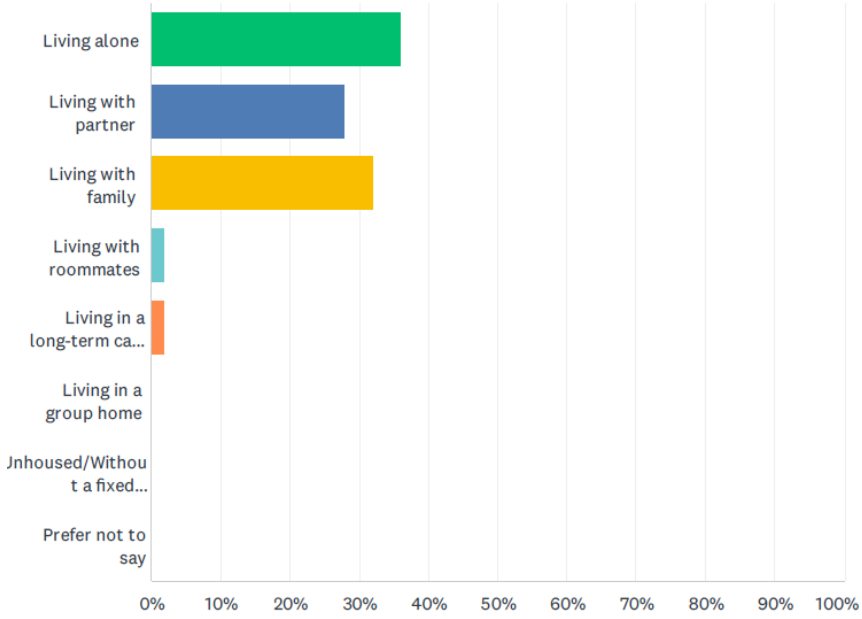


Question: What is your marital status?

Participants were asked to disclose their marital status. 39% (20) identified as single. 35% (18) identified as married. 8% (4) identified as divorced. 10% (5) identified as common law. 8% (4) responded with others and were asked to specify their status. 6% (3) specified that they were widowed and 2% (1) had a weekend partner. See table 6 above.

Environmental Barriers:

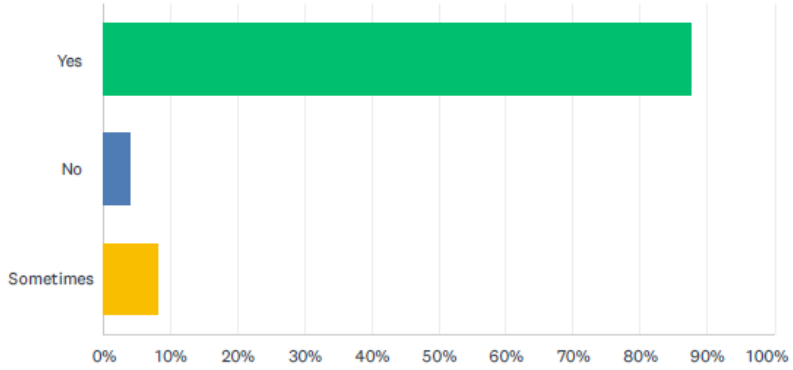
Table 7: Living Situation



Question: What is your current living situation like?

Respondents were asked to share their living situation. 37% (18) lived alone. 29% (14) lived with a partner. 32% (16) lived with family. 2% (1) lived with roommates. 2% (1) lived in long-term care. One respondent skipped this question. 50/51 participants responded to this question. See table 7 above.

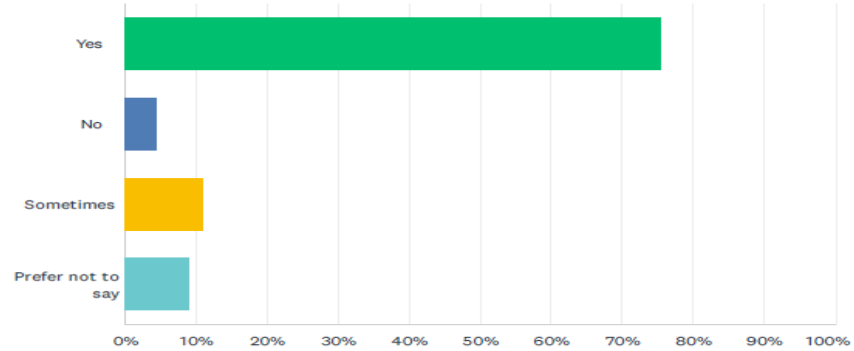
Table 8: Internet Access



Question: Does the place you reside have Internet you can access?

Participants were asked if their residence has Internet access. 88% (44) said yes. 4% (2) said no and 8% (4) said sometimes. 50/51 participants responded to this question. See table 8 above.

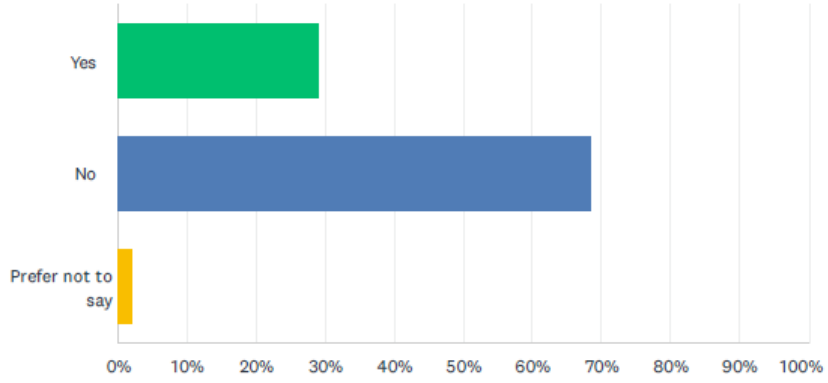
Table 9: Shared Space & Safety



Question: If you live in a shared space, do you feel safe accessing 2SLGBTQ+ social programs and/or services in that space?

Participants were asked if they live in a shared space and if they feel safe accessing 2SLGBTQ+ social programs and/or services in that space. 76.09% (35) said yes. 4.35% (2) said no and 10.87% (5) said sometimes. 8.70% (4) chose not to say. 46/51 participants responded to this question. See table 9 above.

Table 10:Hostile Relationships in the Home

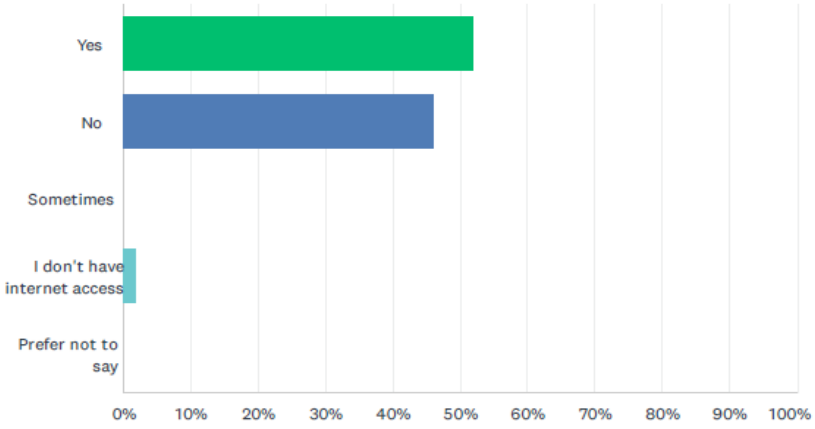


Question: Do you live with a caregiver, support staff, family member, or roommate who behaves in transphobic, homophobic, and/or heterosexist ways?

Participants were asked if they live with a caregiver, support staff, family member, or roommate who behaves in transphobic, homophobic, and/or heterosexist ways. 29% (14) said yes. 69% (34) said no and 2% (1) preferred to not disclose. 49/51 participants responded to this question. See table 10 above.

Connectivity Barriers:

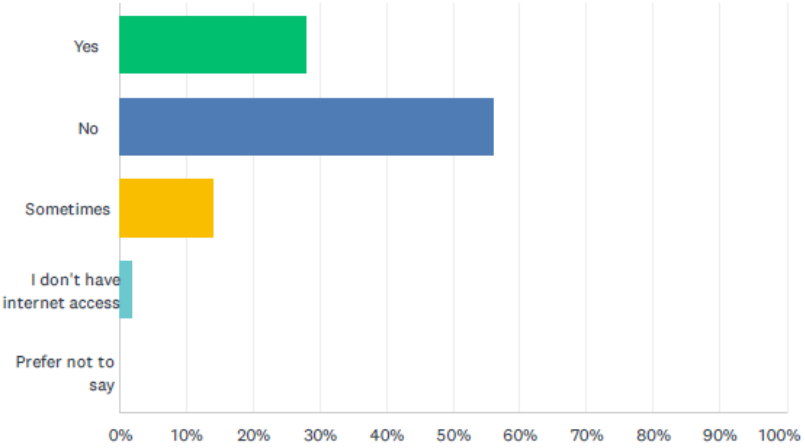
Table 11: Data Plan Limitations



Question: Do you have a limit on your data plan?

Participants were asked if they had limits on their data plans. 53% (27) said yes. 45% (23) said no. 2% (1) said they don't have Internet access. All participants responded to this question. See table 11 above.

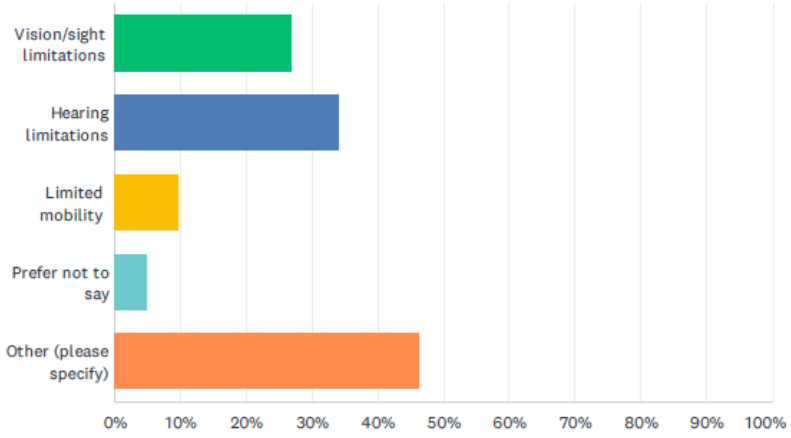
Table 12:Assistance Accessing the Internet



Question: Do you require assistance to access the internet?

Participants were asked if they require assistance to access the internet. 29% (15) said yes. 55% (28) said no. 14% (7) said sometimes. 2% said they don't have internet access. All participants responded to this question. See table 12 above.

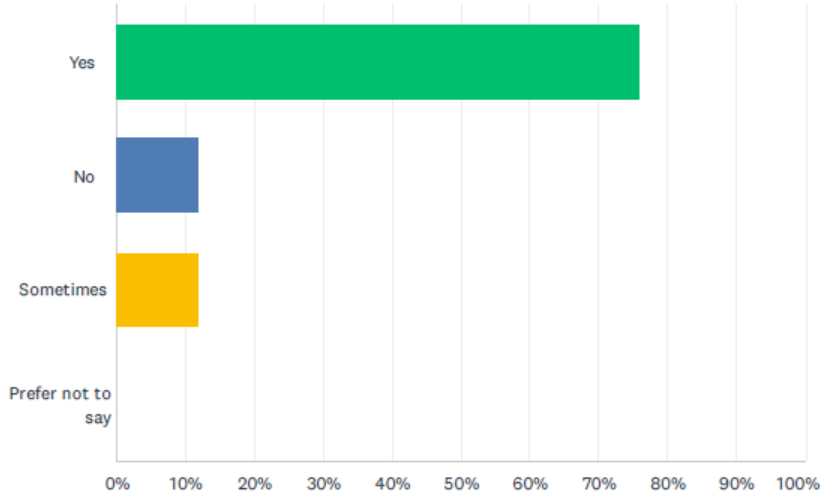
Table 13: Physical Limitations



Question: Do you have any physical limitations that impact your ability to access online resources and services? Click all that apply to you.

Participants were asked if they had any physical limitations that impacted their ability to access online resources and services. They could select all that applied to them. 29% (12) reported vision/sight limitations. 33% reported hearing limitations. 12% (5) reported limited mobility. 5% (2) preferred not to say and 48% (20) reported other. Many respondents specified their limitations using the other option. Responses ranged from physical exhaustion, cognitive impairments, technophobia, dyslexia, chronic pain and neurodivergence. See table 13 above.

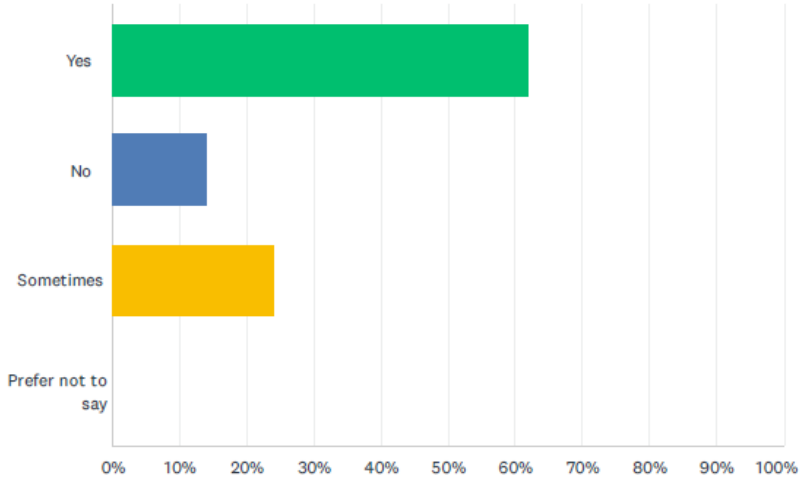
Table 14: Internet Reliability



Question: Do you have reliable high-speed internet?

Participants were asked about their access to reliable high-speed internet. 76% (39) said yes. 12% (6) said no. 12% (6) said sometimes. All participants responded to this question. See table 14 above.

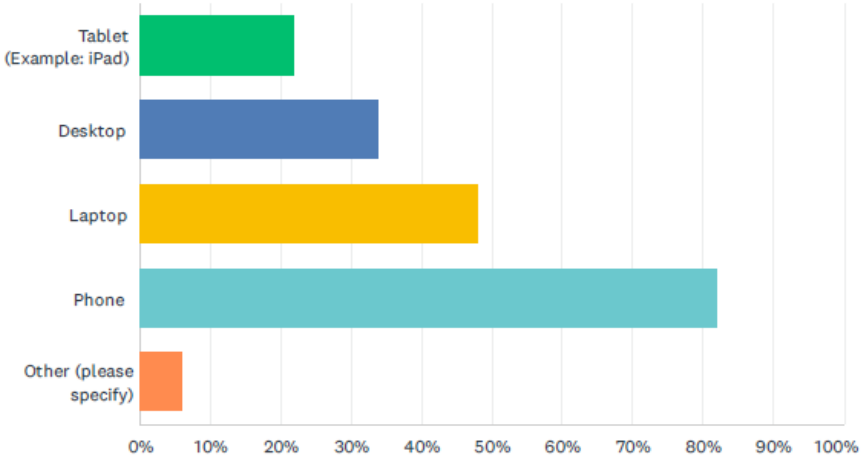
Table 15: Internet Satisfaction



Question: Are you satisfied with your internet connection?

Participants were asked whether they were satisfied with their internet connection. 61% (31) said yes and 14% (7) said no. 25% (13) said sometimes. All participants responded to this question. See table 15 above.

Table 16: Device Usage

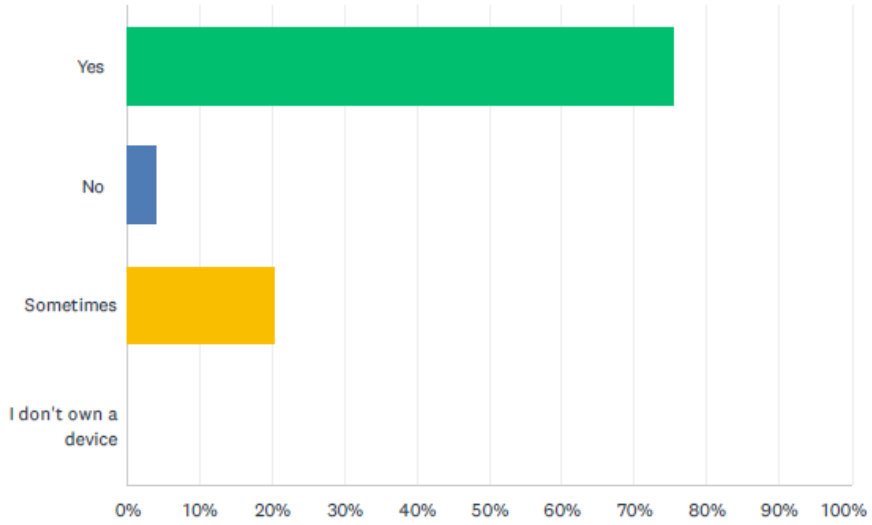


Question: What kind of device do you use to connect to the internet? Please click all the devices that apply.

Participants were asked about the devices they used to connect to the internet. They could click all that apply. 22% (11) said a tablet or iPad. 33% (17) said desktop. 47% (24) said laptop

and 82% reported using phone. 6% (3) respondents chose other and specified the devices they used. This included Google homes, Sonos One and a smart TV. See table 16 above.

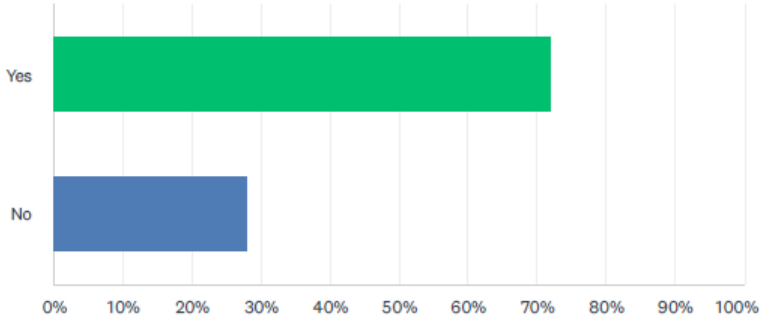
Table 17: Device Reliability



Question: Is your device reliable when you are using the internet?

Participants were asked if their device was reliable when they used the internet. 74% (37) said yes. 4% (2) said no. 22% (11) said sometimes. 50/51 participants answered this question. See table 17 above.

Table 18: Hardware Updates

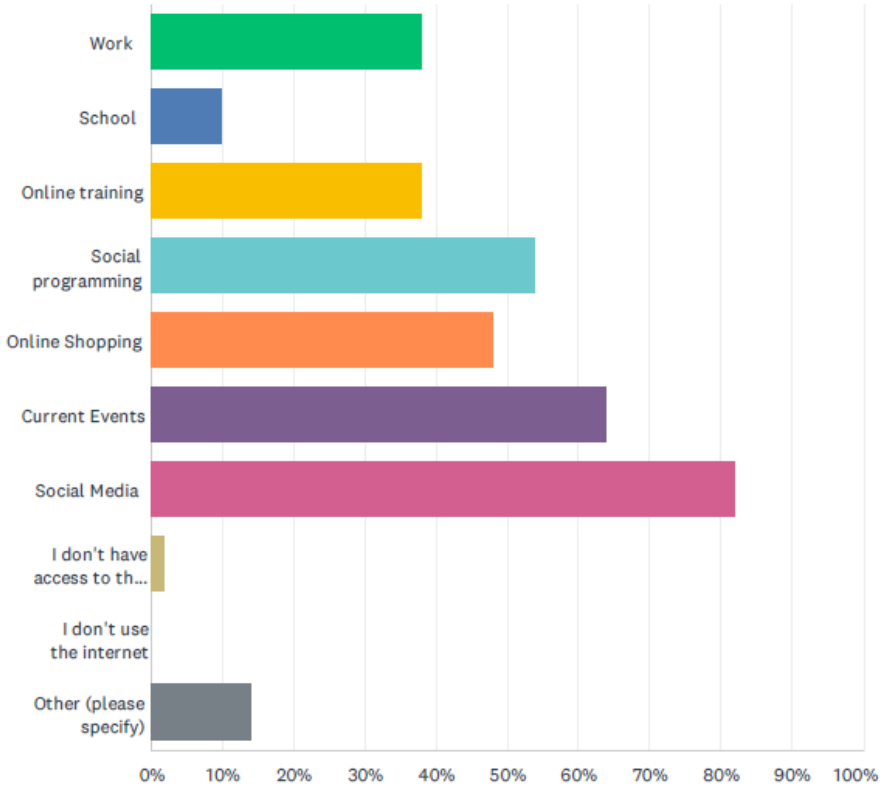


Question: Have you had to update your device to access software like Zoom?

Participants were asked if they have had to up-date their device to access software like Zoom. 71% (36) said yes and 29% said no. All participants responded to this question. See table 18 above.

Digital Literacy Barriers:

Table 19: Internet Usage Habits

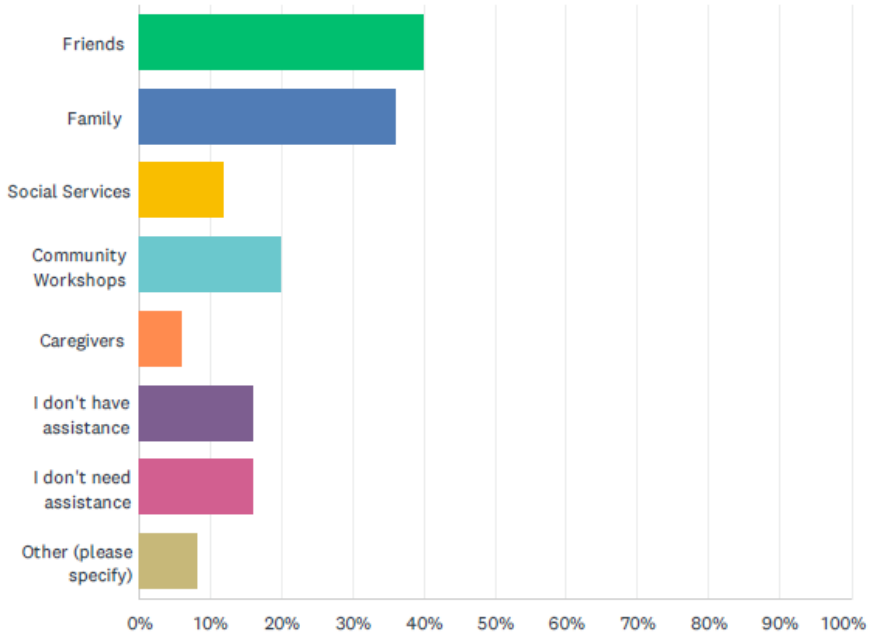


Question: What do you use the internet for? Please click all that apply.

Participants were asked what they use the internet for. They could click all the answers that applied to them and had a short answer text box to elaborate. 38% (19) said work, 10% (5) said school, and 38% (19) said online training. 54% (27) said social programming and 48% (24) said current events. 64% (32) said current events and 82% (41) said social media. 2% (1) said they do not have internet access. 14% (7) chose 'other' to added short answer responses. Responses ranged from "community committee meetings", "participating in online surveys", "workshops", and

"recreational use". Participants indicated that they used the internet for "volunteer work:, "streaming videos", "banking", "finding 2SLGBTQ+ services" in their city/region and for "social interaction". See table 19 above.

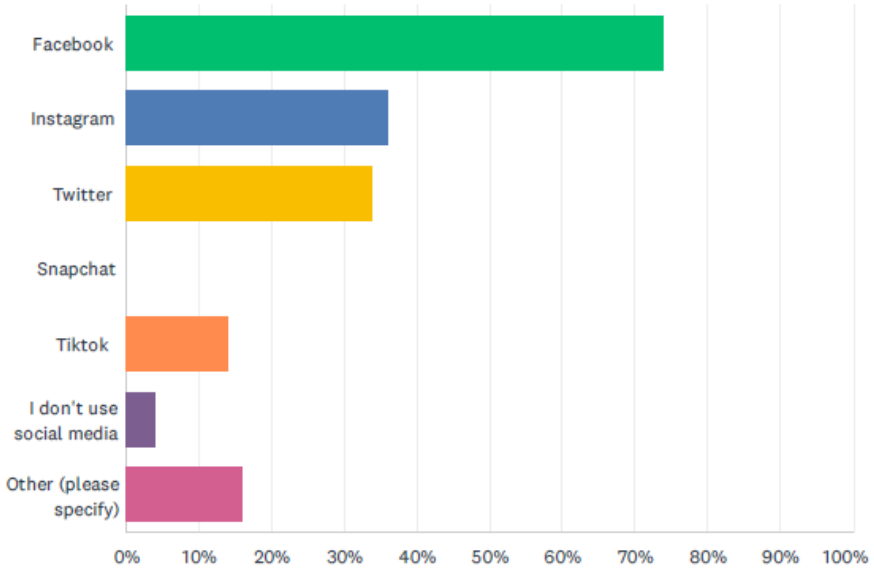
Table 20:Technology Assistance



Question: Who assists you with staying up-to-date on new technologies?

Participants were asked about who assists them when they are using a device with which they require support. This question allowed them to choose multiple responses. 41% (21) said friends, 35% (18) said family. 12% (6) relied on social services and 20% (10) relied on community workshops 6% (3) received support from their caregiver. 18% (9) specified that they do not have any assistance and 16% (8) indicated they do not need assistance. 8% (4) chose "other" which allowed them to elaborate on their responses. People identified their "daughter", "spouse", and "technical coordinators" in their residence as technical assistance. See table 20 above.

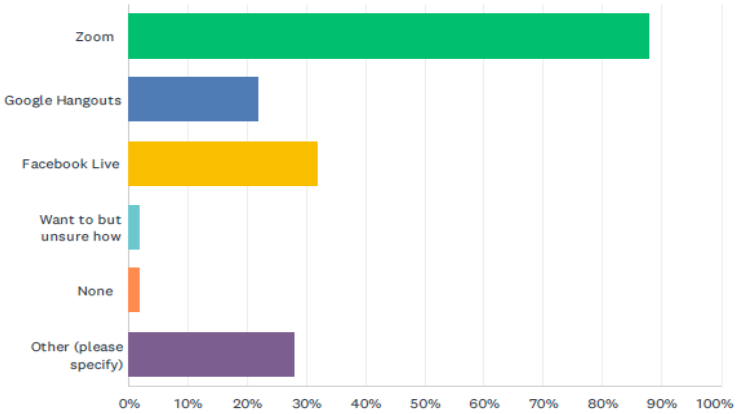
Table 21: Social media usage



Question: What social media platforms do you use? Click all that apply.

Participants were asked about the social media platforms they use. This question allowed them to choose multiple responses75% (38) used Facebook, 37% (19) used Instagram, 35% (18) used Twitter (formally changed to X), 14% (7) used TikTok and 4% (2) did not use social media. 16% (8) chose 'other' which allowed them to elaborate on their responses. People shared that they also used LinkedIn, Twitch, YouTube, Whatsapp, and Reddit. See table 21 above.

Table 22: Digital Meetings & Social Gatherings

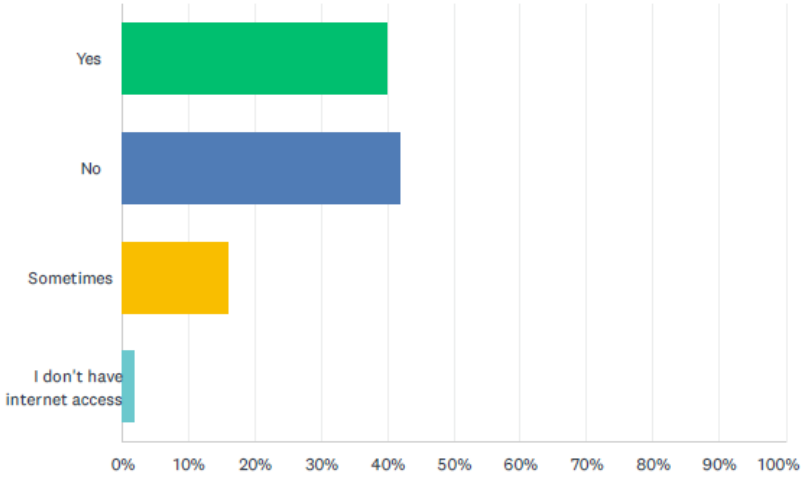


Question: What platforms do you use to attend digital meetings for social gatherings?

Participants were asked to indicate the platforms they used for web hosting and social gatherings. This question allowed them to choose multiple responses. 88% (44) used Zoom, 22% (11) used Google Hangouts, 32% (16) used Facebook live. 4% (2) indicated interest in using web hosting platforms but were unfamiliar with how. 2% (1) said none. 28% (14) chose 'other' to elaborate on their responses. Participants shared that they used Microsoft Teams, WebX, BuzzIt, Cisco and more. Some participants indicated they were not familiar with how to use live stream or web hosting platforms but were interested in learning how. See table 22 above.

Pandemic Barriers:

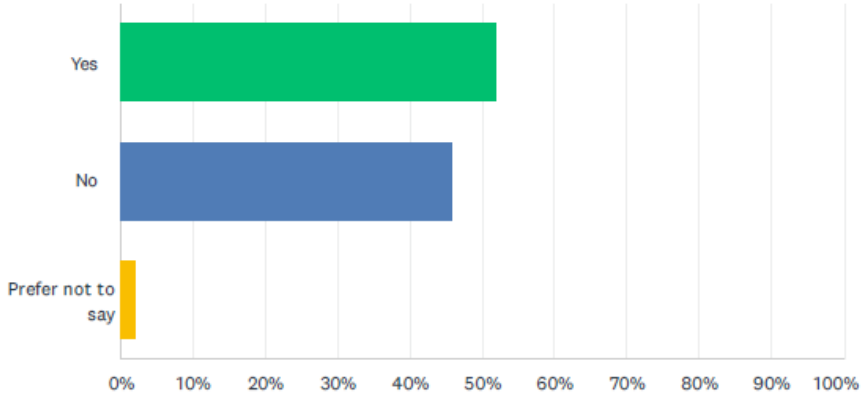
Table 23: Increased barriers to Internet usage due to the pandemic



Question: Have you experienced increased barriers to accessing the internet during the pandemic?

Participants were asked if they faced increased barriers to accessing the internet during the pandemic. 39% (20) said yes and 41% (21) said no. 18% (9) said sometimes and 2% (1) said they do not have internet access. All participants responded to this question. See table 23 above.

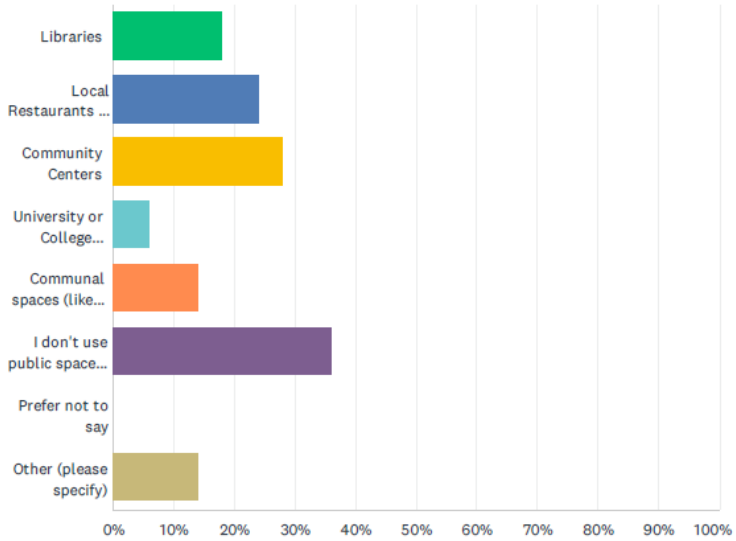
Table 24: Internet Affordability



Question: Have you found the internet less affordable since the pandemic?

Participants were asked if they found the internet less affordable since the pandemic began. 51% (25) said yes. 47% (23) said no. 2% (1) preferred not to say. 49/51 participants responded to this question. See table 24 above.

Table 25:Internet Usage in Public Spaces



Question: Prior to the pandemic, did you rely on any public spaces to connect to the internet?

Participants were asked about the type of public spaces they used to connect to the internet pre-pandemic. 20% (10) indicated they used libraries, 25% (13) used local restaurants or cafes, 27% (14) relied on community centres. 6% (3) used Wi-Fi at university campuses, 17% (8)

indicated communal spaces in their place of residence. 35% (18) indicated they do not use public spaces for the internet. 14% (7) chose "other" to provide additional information, indicating they used the internet at work, on public transit, and using their data plan when out. See table 25 above.

Concluding Question:

Service Provisions:

Participants were asked to provide suggestions and strategies that organizations could implement to address digital divide barriers. 44/51 participants provided written responses to this question. These responses are anonymized and are shared in Chapter Four.

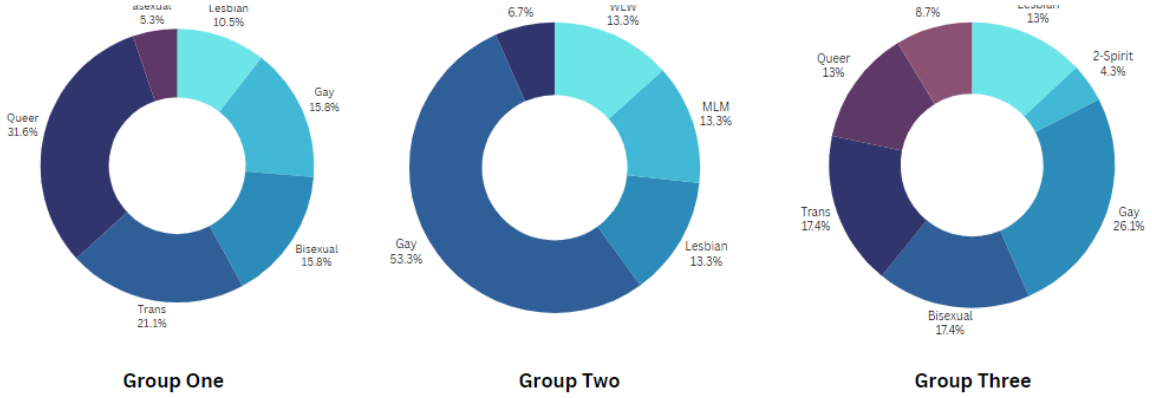
Subgroup Dataset

To conduct a comprehensive analysis of the dataset that identifies how participant experiences with ICT varied, I divided participants into four subgroups based on their income status. To do this, I used the Excel data spreadsheet provided by SurveyMonkey. Using the filter feature, I was able to differentiate participant groups based on their income. I manually reviewed the data and created an additional spreadsheet to compile the data into the subgroups. The quantitative data set is a starting point for contextualizing 2SLGBTQ+ older adults experiences with ICT and comparing how access barriers differed based on race, class, and age. This information is useful for identifying overarching digital divide challenges amongst rainbow seniors. It is also useful for making comparisons to cisgender heterosexual seniors' experience with ICT. Since this data was collected during the peak of the pandemic, it captures the significance of technology access and usage during Ontario stay-at-home mandates. With only fifty-one participants, this study only captured a very small segment of the 2SLGBTQ+ older adults in Ontario. My options for collecting data during the pandemic were limited. I only reached potential

participants through my community networks and on social media. This increased the likelihood of receiving responses from people who were already connected to ICT and who could more easily access the survey on their personal devices. Dividing the dataset into four distinct subgroups allowed me to observe how ICT experiences differed for rainbow seniors during stay-at-home mandates.

The four groups included group one participants who reported earning under $15,000 to $25,000 (14). Group two, participants who earned $25,000 to $45,000 (14). Group three, who are those who earned more than $45,000 (14). Lastly group four are participants who abstained from sharing their income bracket by choosing 'prefer not to say' or skipping the question (9). Since I am comparing income status to people's experiences with ICT, my analysis below will focus on the data from groups one, two, and three. Having fourteen participants in three out of the four subgroups simplified the process for comparing how participant demographic categories, such as race, gender/sexual orientation, marital status, and living situation contributed to or diminished digital divide barriers. The data that will be further examined includes forty-two out of the fifty-one participants who took the survey. This data will be used to support my hypothesis that digital divide barriers are heightened for low-income rainbow seniors. I anticipate that higher income participants had more access to ICT during the pandemic. Below, I will use graphs to present the data from the subgroups, including how their responses differed to questions about internet usage, affordability, and technology assistance. After I present these findings, I will move onto the discussion section of this chapter, where I provide an analysis of the subgroup data.

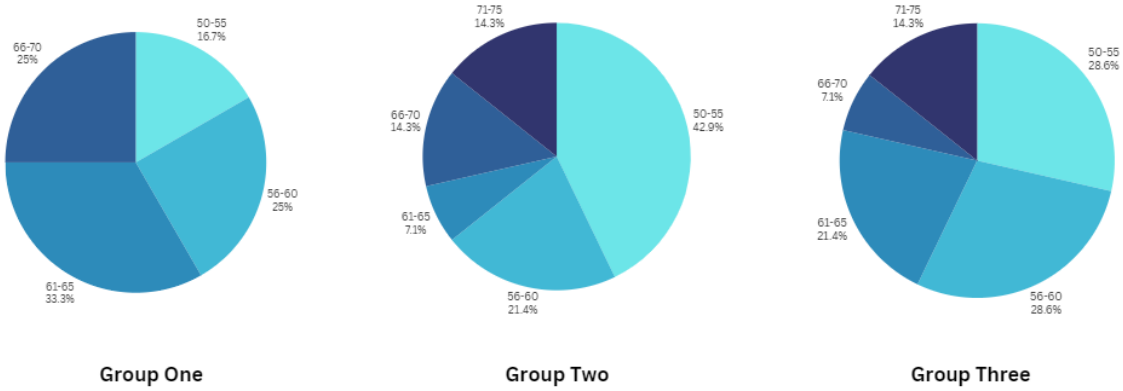
Table 26: Subgroup - 2SLGBTQ+ Status



Comparison of subgroups gender and sexual identities

Participants had the opportunity to disclose how they identified on the 2SLGBTQ+ spectrum and could click all that applied to them. In group one, 10.5% (2) chose lesbian, 15.8% (3) chose gay, 15.8% (3) chose bisexual, 21.1% (4) chose trans, 31.6% (6) chose queer, and 5.2% (1) chose asexual. In group two, 13.3% (2) chose lesbian, 53.3% (8) chose gay, 13.3% (2) chose women loving women (WLW), and 13.3% (2) chose men loving men (MLM). In group three, 13% (3) chose lesbian, 26.1% (6) chose gay, 17.4% (4) chose bisexual, 17.4% (4) chose trans, 13% (3) chose queer, 4.3% (1) chose 2-Spirit, and 8.7% (1) chose pansexual. See table 26 above.

Table 27: Subgroups - Age



Comparison of age differences in each subgroup.

The above graphs represent the age of the participants in each subgroup. In group one, 16.7% (2) chose 50-55, 25% (3) chose 56-60, 33.3% (4) chose 61-65, and 25% (3) chose 66-70. In group two, 52.9% (6) chose 50-55, 21.4% (3) chose 56-60, 7.1% (1) chose 61-65, 14.3% (2) chose 66-70, and 14.3% (2) chose 71.75. In group three, 28.6% (4) chose 50-55, 28.6% (4) chose 56-60, 21.4% (3) chose 61-65%, 7.1 (1) chose 66-70, and 14.3% (2) chose 71-75. See table 27 above.

Table 28: Subgroups - Race / Ethnicity

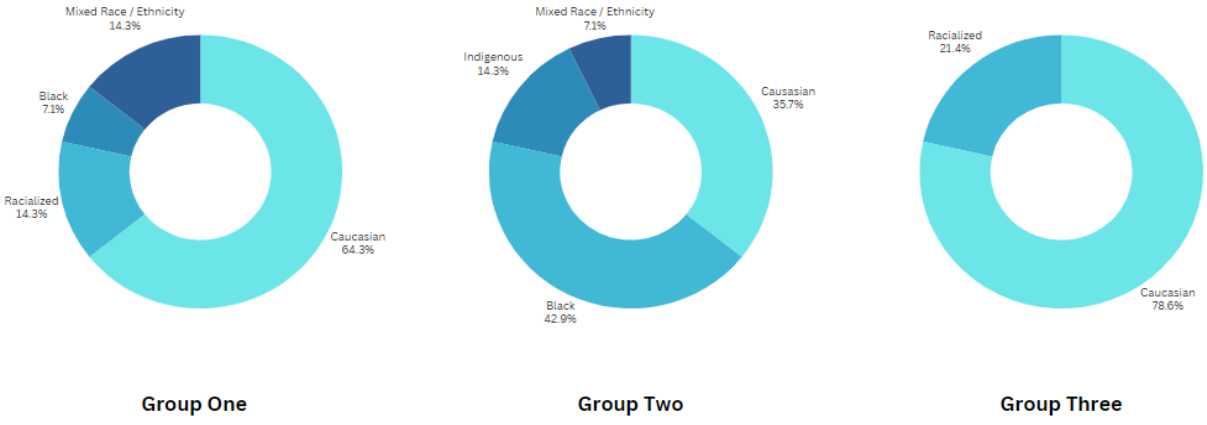
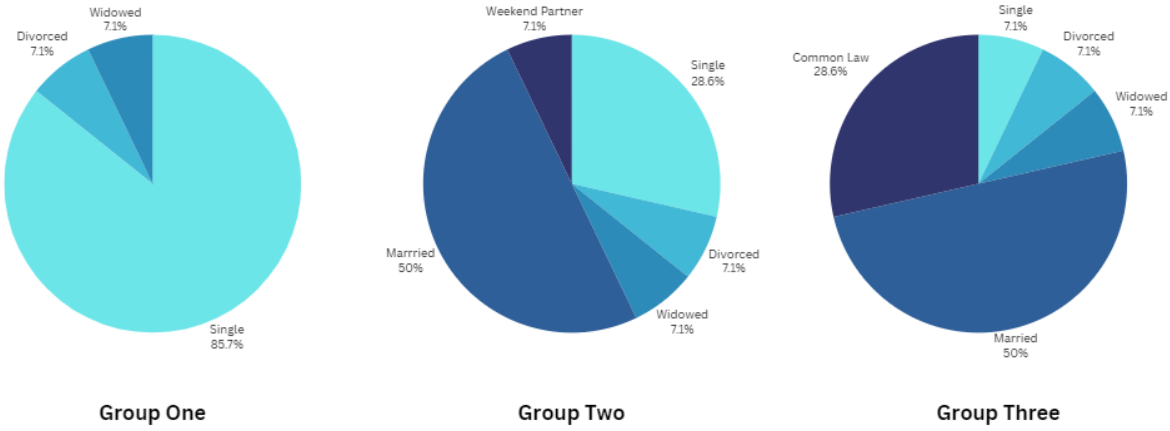


Table 28: Comparison of race/ethnicity differences in each subgroup.

The above graphs represent the race and ethnicity of the participants in each subgroup. In group one, 64.3% (9) said caucasian, 14.3% (2) said racialized, 7.1% (1) said Black, and 14.3% (2) said mixed race/ethnicity. In group two, 35.7% (5) said caucasian, 42.9% (6) said Black, 14.3% (2) said Indigenous, and 7.1% (1) said mixed race/ethnicity. in group three, 78.6% (11) said caucasian and 21.4% (3) said racialized. See table 28 above.

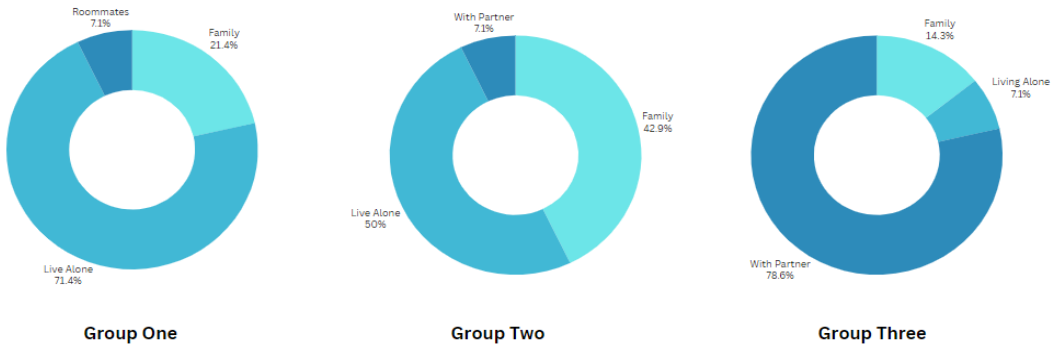
Table 29: Subgroups - Marital Status



Comparison of marital status differences in each subgroup.

The above graphs represent the martial status of the participants in each subgroup. In group one, 85.7% (12) chose single, 7.1% (1) chose divorced and 7.1% (1) specified widowed' in the 'other' column. In group two, 28.6% (4) chose single, 7.1% (1) chose divorced, 7.1% (1) specified 'widowed' in the 'other' column, 50% (7) chose married and 7.1% (1) specified 'weekend partner' in the 'other' column. In group three, 7.1% (1) chose single, 7.1% (1) chose divorced, 7.1% (1) specified 'widowed' in the 'other' column, 50% (7) chose married, and 28.6% chose common law. See table 29 above.

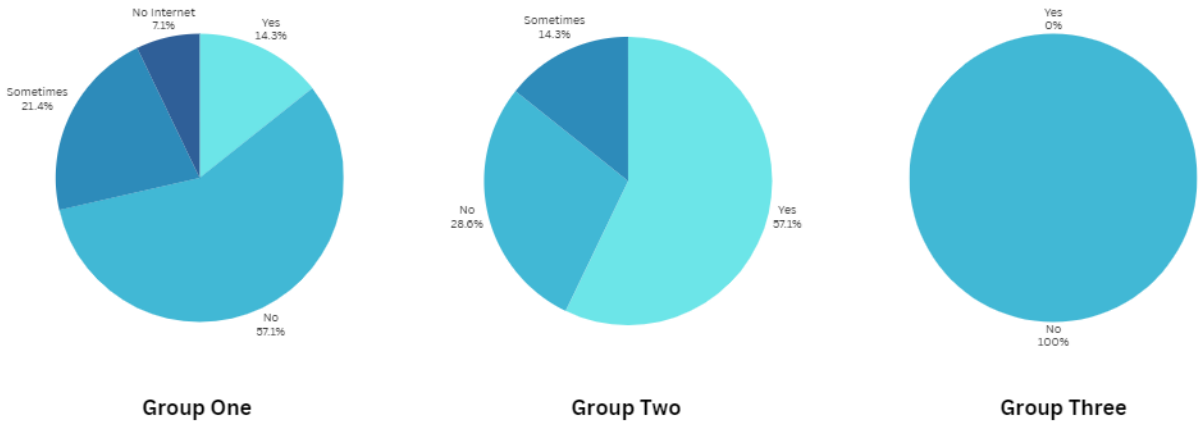
Table 30: Subgroups - Living Situation



Comparison of living situation differences in each subgroup.

The above graphs break down participants living arrangements in each subgroup. In group one, 21.4% (3) lived with family, 71.4% (10) lived alone, and 7.1% (1) lived with roommates. In group two, 42.9% (6) lived with family, 50% (7) lived alone and 7.1% (1) lived with their partner. In group three, 14.3% (2) lived with family, 7.1% (1) lived alone, and 78.6% (11) lived with their partner. See table 30 above.

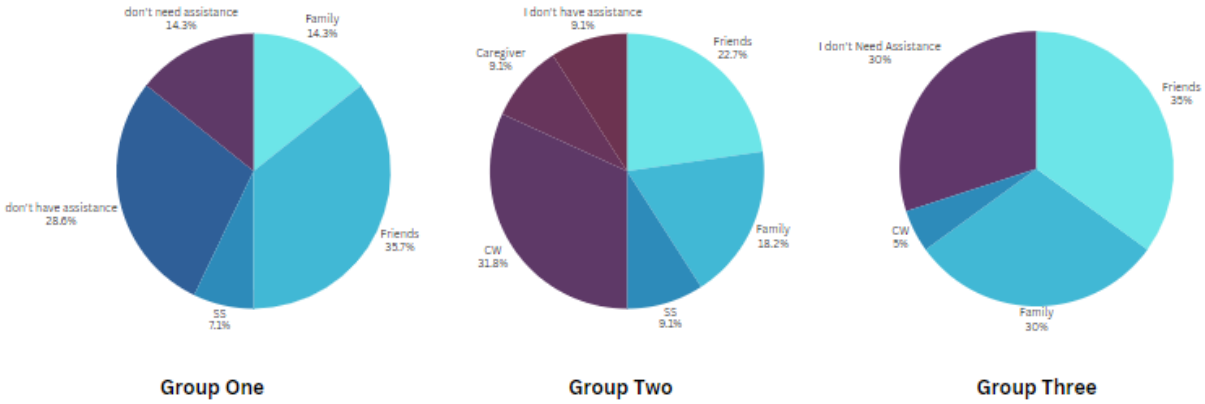
Table 31: Do you require assistance to access the internet?



Comparison of if participants needed assistance to access the internet

The above graphs represent participant responses on whether or not they needed assistance to access the internet. In group one, 14.3% (2) said yes, 57.1% (8) said no, 21.4% (3) said sometimes, and 7.1% (1) said they did not have internet access. In group two, 57.1% (8) said yes, 28.6% (4) said no, and 14.3% (2) said sometimes. In group three, 100% of the participants said no. See table 31 above.

Table 32: Subgroups - Who assists you with staying up-to-date on new technologies?



Comparison on who support participants with staying up-to-date on new technologies.

The above graph represents who participants relied on for ICT support. Participants could choose all the options that applied to them. I use acronyms for social services (SS) and community workshops (CW) to better fit these categories into the graphs. In group one, 14.3% (2) said family, 35.7% (5) said friends, 7.1% (1) said social services, 28.6% (4) said ‘i don’t have assistance’ and 14.3% (2) said ‘I don’t need assistance’. In group two, 22.7% (5) said friends, 18.2% (4) said family, 9.1% (2) said social services, 31.8% (7) chose community workshops, 9.1% (2) said caregiver, and 9.1% (2) said ‘I don’t need assistance’. In group three, 35% (7) said friends, 30% said family (6), 5% (1) said community workshops, and 30% (6) said ‘I don’t need assistance. See table 32 above.

Table 33: Subgroups - Have you found the internet less affordable since the pandemic?

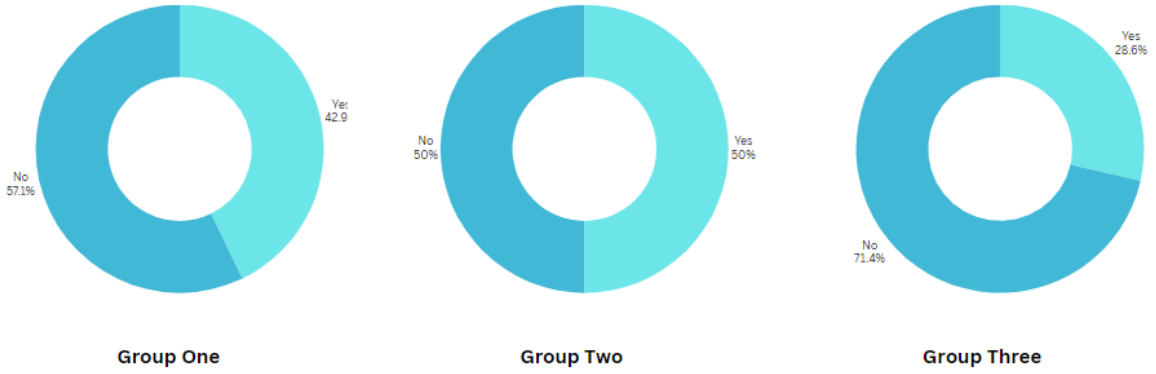
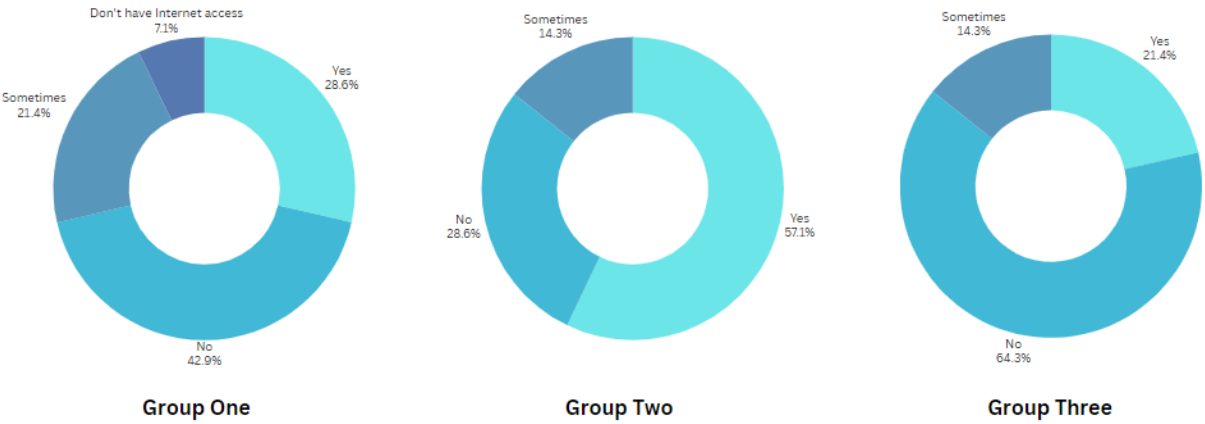


Table 33: Comparison on if the internet became less affordable during the pandemic

These graphs represent participant responses to my question about internet affordability during the pandemic. In group one, 42.9% (6) said yes and 57.1% (8) said no. In group two, 50% (7) said yes and 50% (7) said no. In group three, 28.6% (4) said yes and 71.4% (10) said no. See table 33 above.

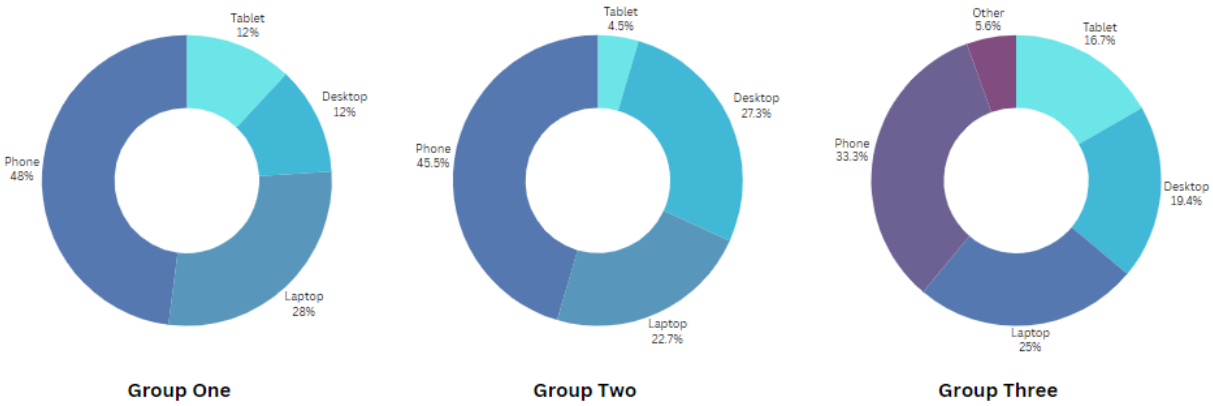
Table 34:Subgroup - Have you experienced increased barriers to accessing the internet during the pandemic?



Comparison of participants experiencing increased barriers to internet access during the pandemic.

These graphs represent if ICT barriers enhanced during the pandemic. In group one, 28.6% (4) said yes, 42.9% (6) said no, 21.4% (3) said sometimes and 7.1% (1) chose 'I don't have internet access'. In group two, 57.1% (8) said yes, 28.6% (4) said no, and 14.3% (2) said sometimes. In group three, 21.4% (3) said yes, 64.3% (9) said no, and 14.3% (2) said sometimes. See table 34 above.

Table 35: Subgroup - What kind of device do you use to connect to the internet? Click all that



Comparison of devices owned by participants.

These graphs show the kinds of devices participants commonly owned and used during the pandemic. For this question, participants could choose all the devices that applied to them and many of them owned multiple devices. In group one, 12% (3) owned a tablet, 12% (3) owned a desktop, 28% had a laptop, and 48% had a phone. In group two, 4.5% (1) had a tablet, 27.3% (6) had a desktop, 22.7% (5) had a laptop, and 45.5% (10) had a phone. In group three, 16.7% (6) had a tablet, 19.4% (7) had a desktop, 25% (9) had a laptop, 33.3% (12) had a phone, and 5.6% (3) chose 'other' and specified "Google Home" "Sonos One" and "Smart TV" as other devices they used to access the internet.

Grouping the dataset into subgroups will support me in conducting an intersectional analysis of the data in my discussion section and in Chapter Four. Comparing and identifying patterns in the three subgroups is necessary for understanding how race, class, marital status, and aging influenced how 2SLGBTQ+ older adults viewed their experiences with digital literacy and access barriers. This data tells a story of the psychological and social factors that shape individual experiences and perspectives on ICT usage. For instance, people with reliable support networks felt more confident in using ICT and identified fewer barriers to internet access in comparison to those who lacked support networks. I will elaborate on this further in the next section.

Discussion:

When examining the four subgroups, there was a stark difference in group three's demographics compared to the other subgroups. The race and ethnicity of group one and two participants was quite diverse, consisting of folks who indicated they were Black, Indigenous, or Person of Colour, and some were Caucasian (See table 28). In contrast, group three had very little racial diversity, with eleven caucasian participants and three participants who chose 'racialized' as their racial identity. My preliminary research and lived experiences have made me acutely aware of the fact that affluent lesbian and gay older adults were more likely to have regular access to the internet. Conversely, my participation in Senior Pride Network Toronto (SPNT) meetings early in the pandemic made me aware of the hardships racialized and low-income community members were facing with staying connected to their communities. Their experiences showed me the need to conduct this research. There were some members whom I completely lost contact with during stay-at-home mandates because they could not attend online Zoom meetings. However, many of the caucasian rainbow seniors I worked with at the SPN continued to host and participate in online

events or meetings regularly during stay-at-home mandates. Some low-income and BIPOC SPNT members informally shared with me their struggles with attending online meetings and programs. This comparison of the subgroups mirrors this experience, showing that white participants with higher incomes were less likely to report barriers to accessing the internet. Mock et al.'s research supports the fact that broadband costs can deter rainbow seniors from using the Internet, stating "many participants cited technology costs (e.g., buying computers, data plans, and internet usage) as prohibitive factors limiting their use of technology" (541). Participant engagement in digital spaces varied based on economic factors and support networks. The internet usage habits amongst each group were dependent on their ability to afford technology costs and having access to reliable technology support systems that reduced fears or anxieties towards ICT. Furthermore, in this section I will unpack the nuances between the subgroups and their experiences with digital divide barriers.

Participant perspectives on internet affordability varied amongst each group. Participants who made below $45,000 annually were more likely to report concerns with the cost of internet.

Surprisingly, less than half (6/14) of the participants in group one viewed the internet as less affordable during the pandemic, while half the participants (7/14) in group two chose yes to this question (See Table 33). In contrast, a majority of group three did not have concerns with internet affordability with four saying yes and then saying no. Abdelaal et al. state that "according to the CIUS, 26% of Canadian residents who did not have internet connectivity at home said the cost of the internet service is the reason" (9). In 2018, Statistics Canada reported that people who earned less than $30,000 a year were more likely not to have high-speed internet (Abdelaal et al. 9). My research further reinforces the fact that rainbow seniors with lower incomes are more likely

to express concerns with internet affordability, especially during times of crises and rapid inflation. Moreover, participants with lower incomes had heightened barriers to accessing support to mitigate digital literacy barriers.

Digital literacy barriers increased or decreased for participants based on two factors: their digital usage habits and their access to support systems. All the participants in group three reported they did not require assistance to access the internet (see table 31). Half of the participants in this group were married and lived with their spouse or family (see table 29 and 30). When asked "Who assists you with staying up to date on new technologies," group three participants selected friends, family, and community workshops as their support systems. This question had an 'other' option that allowed participants to provide written responses. QDD008 wrote "I am lucky to have my very technically literate daughter live with me and help me when needed." Similarly, QDD031 wrote, "mostly my wife". Their responses indicate that they all felt secure with their abilities to use ICT and had support when they did experience technology-related problems. It is apparent that a majority of participants in group three were privileged with financial stability, confidence, and reliable support systems that helped them stay connected to their communities during stay-at-home mandates.

Unlike group three, participants in groups one and two were less likely to have reliable social networks or access to services that supported their ability to use the internet. Amongst group one, five participants chose yes or sometimes to indicate that they required assistance to access the internet and eight said they did not need assistance. Notably, one participant from group one did not have any internet access (see table 31). Group one participants were more likely to be single (See table 29). They often reported living alone or with family and one participant lived with

roommates (See table 30). Amongst this group, participants relied on friends, family, or social services to support them with using ICT and four participants indicated that they do not have access to technology support (See table 32). It is apparent that participants who were single and lived alone were less likely to have reliable support systems which contributed to the struggles they faced with using ICT during the pandemic. They were also less likely to seek out community support services that would help them access technology support programs. The data indicates that participants in group one were less knowledgeable about technology support programs, which hindered their ability to locate and participate in these programs during the pandemic.

Unlike group one or three, more than half the participants in group two (10/14) disclosed that they required support regularly or sometimes to use the internet. Half of the group participants were married, while others reported being single, divorced, widowed, or had a weekend partner (See table 29). Seven out of fourteen participants reported living alone, while six lived with family and one lived with their partner (See table 30). Participants indicated a variety of avenues they sought for technology support, including, friends, family, caregivers, and social services (See table 32). Notably, half (7) of the participants used community workshops to receive support using ICT (See table 32). While many people in this group did experience digital literacy barriers, many of them were eager to seek out learning opportunities to improve their ICT knowledge. Additionally, many of them had social circles (friends, family, caregiver) that were willing to support them with staying connected during the pandemic. I do not think there is a distinct correlation with income status and digital literacy barriers, but this data does show that having access to a variety of support systems to mitigate ICT barriers was essential for assisting rainbow seniors with participating in ICT during the pandemic.

Respondents used a variety of devices to access the Internet, including laptops, smartphones, tablets, desktop computers, and smart TV's (See table 16). This part of the dataset is useful for understanding the types of devices rainbow seniors commonly used to access the internet. Amongst the three groups, a majority of the participants owned smartphones (see table 35). It is reasonable to conclude that smartphones are often owned because they are widely available and versatile. Beyond a smartphone, some participants owned one or two devices, and others owned up to four devices. Participants who owned multiple devices had several options in their household for how they chose to access the internet. Participants were asked if their devices were reliable for assessing the internet, and out of the forty-two participants across the three groups, only two said no and seven said sometimes. It is fair to assume that their participation in my survey was contingent on having access to a device. This data can help service providers who serve rainbow seniors with being proactive in verifying that their online platforms have user-friendly designs.

Service providers who work with 2SLGBTQ+ older adults should ensure that their online platforms are compatible across multiple devices and be especially attentive to the user experience on smartphones. Some online platforms are not designed to be compatible with all devices, which is not the fault of rainbow seniors. It is the responsibility of service providers to make their platforms accessible across multiple devices which will support all community members with access to their resources and services regardless of the device they use. One strategy that can be used to learn about a user's experience with their devices is hosting one-on-one interviews that allow participants to show an interviewer (who could be a service provider) how they navigate a platform. The participant should be required to narrate their navigation experience along with any

barriers they encounter with finding specific online information, resources, or tools. Data collected from user experience interviews can support service providers with changing and upgrading their online platforms to be more user-friendly for the communities they service. This will ensure that 2SLGBTQ+ older adults who use their services can easily navigate and benefit from the resources or social programs.

Physical limitations were reported including vision/sight impairments (29%), hearing impairments (33%) and limited mobility (12%) (see table 13). Almost half of the respondents also indicated that they experienced physical exhaustion, cognitive impairments, technophobia, dyslexia, chronic pain, and neurodivergence. Physical limitations disrupted participant experiences with using new devices, especially for those who were unaware of or did not have access to accessibility software or hardware that would remove disability-related barriers. The ease of access features on smartphones, iPads, tablets, and desktops exist to reduce physical and cognitive impairments, but without the proper technological support, participants were unable to opt into using these features. These features are built into devices to make them more accessible to people with physical and cognitive disabilities. For example, smartphones have features for hearing enhancements, vision enhancements, and options to use external accessories to control a phone. All of these features are included to allow people with disabilities to customize their user experience. Having regular access to support systems, like friends, family, chosen family, or care providers who are affirming and technologically savvy can improve digital experiences for 2SLGBTQ+ older adults.

During the pandemic, I became known as a point person for many rainbow seniors who required technology support to surf the web and use new software. In one case, I worked with a

low-income gay man who was severely socially isolated and who also suffered from memory loss. Having technology support over the phone was not accessible for him since he could not retain the information being shared about his iPad so I would meet him at local libraries or coffee shops (when stay-at-home mandates were lifted) to provide digital literacy support. He was primarily interested in reading the news, watching movies, and attending community social gatherings on his tablet. While I did my best to accommodate his accessibility needs, it was apparent that he required ongoing technology support to regularly use his device. Unfortunately, during the pandemic these in-person support systems were scarce, and I was unable to fully meet that need. This experience demonstrates the importance of local technology support programs that are welcoming and accessible to rainbow seniors. Social support networks, like family, friends, caregivers, and/or service providers must be knowledgeable on how to mitigate the physical and cognitive limitations that impede rainbow seniors from using ICT. Rainbow seniors who have a person or people in their life that understand digital accessibility tools will be equipped with tools and resources that can reduce or even remove the barriers they experience. Unfortunately, this is not the case for those lacking such supports.

I distributed my surveys through community organizations and used the snowball sampling technique to gather data. Many respondents referred people within their networks to the survey, which resulted in the receipt of participants with similar demographic data. When participants refer their friends, family, chosen family, or other acquaintances to a study, it increases the likelihood that there will be commonalities between participants such as race, class, and geographic locations. For future research, rather than inviting anyone who identifies as 2SLGBTQ+ to participate in my study, I would focus on specific groups like 2-Spirit, Lesbian, Bisexual, Trans, and gender non-

conforming older adults to garner more diverse perspectives. 2SLBT+ older adults are more likely to experience financial barriers which impacts their ability to afford home internet. When conducting research with vulnerable populations it is important to consider the impact of this work on their lives. In the next chapter, I examine the research findings to inform possible practices that organizations can adopt to mitigate and improve on the ways that 2SLGBTQ+ older adults access online service provisions and resources.

Many of the participants lived alone, with a partner or with family members. Soliciting responses from people living in group homes or long-term care facilities was challenging during the pandemic, because stay-at-home mandates and visitation restrictions slowed down or completely halted communication channels to residents in these places (Jonsson "Social Isolation" 11). Only one of my survey participants reported living in long-term care. I predicted that environmental barriers, like living in places with non-affirming residents or staff could impact a queer older adult's ability to participate in online programs. In Ontario, staff shortages in LTC homes were common pre-pandemic and heightened during stay-at-home mandates (Armstrong et al. 5; Whiteside 3; Treble par 1). The Canadian Armed Forces (CAF) was called in by the provincial government to assist with five LTC homes that had severe COVID-19 outbreaks. The CAF released a report that highlighted the dire conditions of LTC during stay-at-home mandates, which found inadequate staffing levels, infection control infractions, and misuse of essential personal protective equipment (PPE) protocols (Treble par 1). The conditions of LTC during the pandemic made it incredibly challenging or even impossible to meet the ICT needs of LTC residents. My study was unable to answer this query because the people who participated did not live in these places. More research on how rainbow seniors in long-term care facilities or group

homes access virtual service provisions would illuminate any challenges they face with participating in 2SLGBTQ+ programs. Researchers who explore ICT access in LTC facilities should explore the following questions: How up to date is the technology in LTC facilities? Is this technology set up to properly accommodate people with physical or cognitive disabilities? Who is responsible for supporting LTC residents with their ICT needs? What capacity does staff have to provide support to residents who need ICT support? Do staff have the training and skills necessary to support older adults with ICT usage? A study that explores these questions within the context of LTC in Ontario could support initiatives that address and remove ICT barriers in LTC facilities.

Qualitative Responses:

Participants had the opportunity to elaborate on their multiple-choice responses with short answer questions at the end of each category. The ‘other’ option within the multiple-choice questions also allowed people to share responses beyond the set options, however, many did not use this option to elaborate on their experiences. In the concluding section, participants were invited to share their perspectives on what organizations should offer to support 2SLGBTQ+ older adults with accessing online service provisions. The next chapter provides an analysis of these responses to further contextualize the challenges rainbow seniors experience with digital divide barriers in addition to strategies for mitigating these challenges. I chose to write dedicated chapters in which I discuss the quantitative data in one and in the other the qualitative data. I did so because the qualitative responses offer a nuanced look at how the pandemic shaped 2SLGBTQ+ older adults' relationship to ICT during the pandemic. Using a thematic analysis approach, I will explore the psychological and social factors that contributed to how rainbow seniors interacted with ICT. My aim is to better understand rainbow seniors' experiences with technology access and usage

during stay-at-home mandates. . This data will guide the development of strategies for mitigating and improving online service provisions in chapter five. My analysis will offer insight into how queer privilege prevented and/or contributed to the removal of barriers to ICT. All participant responses have been made anonymous to protect the their identity.

Conclusion

The data presented in this chapter supports my hypothesis that 2SLGBTQ+ older adults experience unique ICT challenges. The quantitative data showed that many low-income rainbow seniors experienced digital divide barriers related to digital literacy and access. While most participants owned devices with internet access, they lacked the digital literacy skills required to fully participate in remote programs and services. While some had reliable support networks to assist them with being online, others did not and the pandemic impeded their ability to access support systems outside of their home. Additionally, physical and cognitive impairments further limited some participants' abilities to use their devices. Another key takeaway is that service providers who serve 2SLGBTQ+ communities, including rainbow seniors should explore strategies for mitigating ICT barriers so that individuals can access the essential services that are provided online. Moreover, the qualitative data gathered in this chapter provides partial insight into the digital divide barriers rainbow seniors experience, and can be used to inform future studies on the topic of queerness, aging, and ICT usage.

Chapter Four
Qualitative Data Findings & Analysis

Introduction:

This community-based research project captures the distinct nuances between 2-Spirit, Lesbian, Gay, Bisexual, Trans, and Queer older adults' ICT usage and their heterosexual counterparts. By employing a mixed-method approach, both qualitative and quantitative research methods were utilized to explore how stay-at-home mandates in Ontario impacted digital usage barriers for rainbow seniors during the pandemic. Chapter three provided an overview of my research questions, study approach, methods, and quantitative research findings. This chapter summarizes and discusses my key findings from the online survey that I conducted in 2022 while Ontario stay-at-home mandates remained in place. Here, I explore how these findings relate to common digital barriers that the general older adult population in North America normally face and the barriers that rainbow seniors face as a result of social issues that the pandemic exacerbated. In chapter two I discussed how homophobia, heterosexism, and transphobia continue to marginalize 2SLGBTQ+ people in Canada and how this discrimination is amplified for rainbow seniors who experience oppression because of their race, class, age, and disability. Rainbow seniors often return to the closet when accessing public services such as health care services, long-term care, and social supports that are catered to the general public. This is common for rainbow seniors because they fear experiencing harassment or discrimination because of their sex, gender, and/or sexuality (Brotman et al. "Health and Service Needs" 197; Mock et al. 539; Jonsson "Social Isolation" 17). Health care and social service providers that cater to the general population are not always welcoming or affirming of 2SLGBTQ+ older adults (Brotman et al. "Health and Service

Needs" 192; Boulé et al. 236; Jonsson Social Isolation" 17). My online survey captures how 2SLGBTQ+ older adults accessed and utilized the internet during the peak of the pandemic in Ontario. Key findings are unpacked to identify recommendations for addressing and mitigating digital divide barriers amongst rainbow seniors in Ontario.

Utilizing a thematic analysis approach, the collected data was used to identify recurring themes within participants' written responses along with how these responses connect to the quantitative data. A thematic analysis is a "method for identifying, analyzing and reporting patterns (themes) within data" in a way that categorizes and explains data findings in detail (Braun and Clarke 79). Researchers who use a thematic analysis must be attentive to how their theoretical frameworks and methods contribute to unpacking research questions in a meaningful way (Braun and Clarke 82). According to Braun and Clark "the thematic analysis means researchers need not subscribe to the implicit theoretical commitments of grounded theory if they do not wish to produce a fully worked-up grounded theory analysis" (81). More specifically, using a thematic decomposition analysis which is a form of thematic discourse analysis, entails familiarity with the dataset, identifying key themes, stories, and patterns in the dataset, and conducting analysis using the theoretical frameworks to interpret the data (Braun and Clarke 82). This process gives theorists the ability to make meaning of the data and allow for a reflexive dialogue on how the data answers research questions (Braun and Clarke 82). Moreover, my literature review supported me in identifying the key themes of the analysis of my findings and will contribute to answering the overarching question on how rainbow seniors' experiences with ICT differed from their cisgender heterosexual counterparts during the pandemic.

I compiled the participants' written responses into a Word document and used a coding process to enact a thematic analysis by identifying common themes and patterns that emerged from the data. Collecting written responses from participants gave them the space to share their struggles with accessing online services during the pandemic. These themes were divided into two categories, personal barriers (anxiety, fear, frustration, social isolation and loneliness, satisfaction, and reasonable enjoyment) and social barriers (ease of access, affordability, safety and privacy, digital literacy support). Therefore, this qualitative approach to the research offered further insight into how 2SLGBTQ+ older adults' experiences were shaped by their gender and sexual identities. Each theme is described in the findings section below. Respondent data is coded by letters and numbers (QDD000). QDD stands for Queer Digital Divide, and the numbers represent each survey participant. To protect the privacy of participants, names and other identifiable information were removed. I want to note that in at least one response, the participant completed their survey offline, using a printed version. The participants' survey responses were manually transferred into the online dataset in SurveyMonkey and some of their handwritten responses were not fully legible. In the last section of the survey, participants had the opportunity to share their suggestions and strategies for addressing digital divide barriers (Appendix D).

Key Findings:

The following sections describe the key themes that emerged from my thematic analysis of the online survey data. They are separated into two categories which are summarized and presented below. Personal barriers are themes related to psychological or accessibility-related barriers that affect their ability to fully utilize ICT. Themes in this section range from anxiety, fear, anger, social isolation and loneliness, frustration, satisfaction, and reasonable enjoyment. Societal barriers were related to structural barriers that hinder ICT access and usage. Themes include ease

of access, financial disparities, safety and privacy, technology support, and access to public facilities. These themes are not necessarily distinct from one another as participant responses drew on several of these themes. Study participant quotes are used to contextualize each theme. Using feminist and queer theoretical frameworks, I identify how rainbow seniors' experiences with ICT are similar or different from their heterosexual counterparts.

Personal Barriers:

Fears and anxieties:

Digital divide scholars like Martine Lagacé (1) and Hsin-yi Sandy Tsai (696) have shown that older adults, in general, can benefit from ICT, but many harbour fears or anxieties that hinder their abilities to learn about technology. Rainbow seniors experience similar feelings towards using technology. One participant explained that they felt overwhelmed by the internet because cognitive limitations made it difficult to retain knowledge about their device and online platforms.

> My main barrier is psychological in that my late- [not legible] makes me insecure and sometimes bewildered. When several days pass, and I haven't been online, when I get back, I seem to forget what to do. I [not legible] the "techno-dummy [not legible]
> - QDD051

Digital accessibility for older adults requires a range of considerations to best accommodate their needs. As we all age, our vision, cognition, and fine motor skills deteriorate (Lagacé et al. 2). The precariousness of aging means that all older people, regardless of their gender or sexuality may face cognitive and other impairments that impede their ability to process and retain new information. While these individuals may be eager to participate in digital literacy training, their cognitive limitations exacerbate fears of participating in these programs. In QDD051's experience, his insecurities and agitation stemmed from his inability to remember how to navigate the online world, which deterred him from regularly utilizing technologies. Digital divide scholars recognize

how an individual's vision, cognition, and dexterity can impact their ability to learn how to operate new devices seamlessly (See Chapter Two). All older adults would benefit from access to one-on-one support with digital mentors who are familiar with the unique needs of folks experiencing memory loss. This kind of support is necessary, especially at the height of the pandemic when stay-at-home mandates shut down all public spaces, including places people visited for computer access, internet access, and digital literacy training.

Unlike the rest of the survey participants, QDD051 completed a physical version of the survey because he did not have the internet in their home. QDD051 was paired with a digital mentor from Connected Canadians to assist him with improving his digital literacy skills. His low-income status and lack of internet access made his access to properly support him challenging because during stay-at-home mandates he relied on shared broadband services outside of his home to participate in programs that require the internet. Mentorship sessions were held on the phone and Zoom. The lack of home internet access meant that he could only participate in digital mentorship sessions in a communal space that had internet. This barrier, combined with his cognitive limitations exacerbated challenges with learning how to use the internet.

Another participant concisely identified their struggle with digital literacy barriers as due to: “My own fear”, (QDD050). Technophobia is a common fear that older adults harbour towards ICT (Lagacé et al. 6). These fears can stem from self-doubt, anxiety, or misconceptions about technologies (Nimrod 150). QDD050 is a low-income older gay man who lives alone. His written responses were short, but all of his responses indicated that digital literacy and internet access contributed to his inability to use the internet. His other written response stated that he was “unable to update apps, phone, with no internet.” QDD050 was aware of the importance of updating his

devices to improve their usability. However, the pandemic worsened access to support services, which removed opportunities to use public internet access and digital literacy support services. My findings mirror Mock et al.'s research, where participants shared their fears of technology, one stated "I'm just so overwhelmed; I'm overly stimulated…so I choose not to be on social media (robin, trans male focus group)" (540). Unlike my research, Mock et al's study highlighted how fears of online harassment and discrimination were also concerns expressed by their participants (539). My analysis establishes that technophobia is a fear shared by both 2SLGBTQ+ and non-2SLGBTQ+ older adults. However, fears of experiencing homophobia, heterosexism, or transphobia online are uniquely attributed to rainbow seniors.

Frustration:

Skill gaps are a common digital divide barrier amongst older adults (Lagacé et al. 2). Many struggle to learn the necessary skills needed to navigate the internet with confidence. This can lead to frustration towards learning ICT. Digital literacy gaps, or skills gaps, are a "second-level digital divide issue" because digital platforms do not always use accessible designs for people who are not technologically savvy (Lagacé et al 2). Prior to conducting this research, I anticipated that rainbow seniors would experience heightened challenges with navigating online platforms, making it difficult for them to locate affirming online service provisions that are welcoming and inclusive of their identities. Study participants shared experiences with locating affirming and welcoming 2SLGBTQ+ services:

> Sometimes I have problems with Zoom. I prefer to stay muted and leave my camera off. I don't like breakout rooms. I've been a member of a group for people affected by cancer for many years. However, they require that you leave your camera on for many of their programs for identification purposes. They developed an online consent form that I wasn't able to fill out and sign and so I was denied access to the program I wanted to attend.

- QDD018

In QDD018's case, she faced issues using Zoom and preferred to leave her camera off. The group requirement to be on camera for identification purposes combined with QDD018's inability to fill out the online consent form, resulted in her being denied access to the program. This frustrated her as she was now being denied access to a program she really wanted to attend. The requirement to keep her camera on was a barrier in this case. Like many people who do not wish to display their living conditions, many rainbow seniors can feel self-conscious about their appearance or living space. They may feel vulnerable being on camera or simply want to protect their privacy. The service provider who offered this service did not consider the unique needs of rainbow seniors or other equity-deserving groups.

Going on camera can expose rainbow seniors to hostile or intolerant service providers. Brotman et al. 's research further exemplifies this, stating "the risks of coming out in hostile or intolerant environments cause significant stress [for] gay men and lesbians, and often forced them to focus more on assessing the safety of environments rather than on developmental achievements" ("Health and Service Needs" 193). Similarly, Mock et al. explain that rainbow seniors in their study expressed concerns with being "outed" by technology (539). One trans woman from Mock et al.'s study shared a story of having her credit card information stolen, stating that "she contacted the company to put a hold on the account but because her voice did not match the indicated gender/name on the file, the company refused to deal with her" (539). Technology has been used to further discriminate against trans and gender non-conforming people, making them distrustful of online services for the general public. Moreover, service providers who offer programs to the general population may assume that their participants are cis-gender and technologically savvy.

These assumptions can make their digital programs unwelcoming and unsafe for rainbow seniors, especially those who are unfamiliar with or unable to access 2SLGBTQ+ services or programs. While feelings of frustration may manifest due to digital literacy barriers, they can also be connected to feeling socially excluded from some spaces. QDD018's statement points to the need for more publicly available social support groups that are flexible in their approaches to participation and understand the needs of 2SLGBTQ+ older adults.

Additionally, there are considerations of how skill gaps shape an individual's ability to use platforms like Zoom, such as knowing how to access the software, the ability to connect it to a device, and having high-speed internet access. Participants expressed frustrations with their lack of knowledge on new digital platforms:

> "Either I lack the hardware or the comprehension to successfully use things like Zoom. I can't make my camera or microphone work, and I really don't know why."
> - QDD005

> "I wish I knew more about the constantly changing world with the internet. I feel inadequate about the daily new things that appear."
> - QDD012

The quantitative data (see chapter three) indicated that lower-income rainbow seniors often lived alone and did not have a strong social network that could support their ICT needs during the pandemic. The responses offer deeper insight into the impact ICT barriers had on their ability to participate in digital spaces. These participants recognized that their lack of ICT knowledge impacted their ability to fully embrace how technology is changing, and how we connect, socialize, learn, and play. Skill gaps contributed to their inability to learn new technologies with ease and confidence. In QDD005's case, their failure to troubleshoot software issues left them frustrated and disempowered. In addition to talking about their struggles with adapting to new technologies, they also expressed interest in receiving digital literacy support. Based on QDD012's response, it

is apparent that he feels inadequate with respect to learning about new technologies and he has fears about the unknown. While QDD012 does not specify what those fears are, this can be interpreted as fears of online scams, viruses, or encountering hateful content online. A participant in Mock et al. expresses similar sentiments, stating "I just want the phone to ring…nothing else" (Kelly, lesbian focus group) (540). My dataset shows that the frustration and disinterest that rainbow seniors experience when learning about new technologies is not much different than the non-2SLGBTQ+ older adult population. However, affirming resources and services that are culturally sensitive to the needs of rainbow seniors may be more scarce. Many people, including myself, sometimes have negative emotions towards technology, which may lead to abandoning attempts to learn about a new platform or device. With this in mind, creating multiple outlets for empowering rainbow seniors to use ICT can mitigate negative reactions toward using their devices and navigating the internet.

Social isolation & Loneliness:

Social isolation and loneliness affected many participants during Ontario's stay-at-home mandates. The internet became the primary tool for social connection. While the internet allows for social interactions, it cannot replace in-person gatherings. One participant stated:

> "The pandemic barriers I am experiencing have little to do with the Internet and mostly to do with the lack of access in the community for seniors."
> - QDD012

Unlike younger tech-savvy populations that can locate online social communities with greater ease, older adults often lack the technological skills to build online social networks. Many older adults continue to prefer in-person or phone conversations to socialize (Seifert et al. "Double Burden" e101). The loss of everyday in-person social interactions during the pandemic heightened

older adults' feelings of social isolation and loneliness (Jonsson “Social Isolation” 5). Due to an increased reliance on community care networks and chosen families, rainbow seniors experienced unique feelings of disconnection from their communities during the pandemic. As QDD012 notes, a lack of access to community social gatherings also meant a loss of social connections. While there are many 2SLGBTQ+ organizations across Ontario, spaces for the community to congregate and thrive are minimal. In Toronto, The Village (or Gay Village) is the primary area that has cafes, shops, and restaurants run by and for 2SLGBTQ+ people. Outside of Toronto, businesses owned by queer people in smaller cities or rural communities are less common. Additionally, organizations that support queer people are scarcer. For rainbow seniors, losing access to queer-friendly, safe, and welcoming community hubs during stay-at-home mandates was traumatic. An eagerness for these social opportunities grew during the pandemic. Another respondent stated:

> “Loneliness has forced me to use things like Zoom. It’s horrible. I miss people. You can’t discuss deeper issues online. Activism within the community is suffering.”
> - QDD026

Virtual meetings and social gatherings did not replace the need for real-life human connection. For this participant, in-person social programs are essential to how he connects and organizes activism with others. As QDD026 states, “activism within the community is suffering,” which I interpret as fear toward being denied the right to politically organize, especially during times when 2SLGBTQ+ disinformation and hate are rising in Canada. 2SLGBTQ+ communities can be large and diverse in urban environments. However, some sub-communities operate within 2SLGBTQ+ communities that can be small and cater to specific sub-demographics like people of colour, people with disabilities, and low-income folks, among others. Losing access to in-person space, especially for smaller sub-communities can cause feelings of frustration, sadness, and grief. Limiting access

to community centres, libraries, and other public service provisions also had significant impacts on rainbow seniors' mental health. QDD001 shared that:

> "Meeting in-person as we did pre-pandemic is the biggest barrier leading to even deeper isolation historically as a [Trans Woman of Colour]. Public speaking is another barrier, [and] friends do not call anymore[.] They've basically dropped off the radar even when I attempt contact. Reduced access to basic services such as banking, good healthy food, clothing, income, transportation, library, government offices to renew my OHIP card/ID…"
> - QDD001

QDD001 experienced multiple hardships because of her income status, gender identity, and race. Trans Women of Colour are at an increased risk of experiencing racism and transphobia, which makes it challenging to find safe, credible, and affirming service providers. In Canada, transphobia and cisnormativity create unsafe conditions for trans people who are continuously denied safe workplaces, housing, and healthcare (Devor et al. 2023). For instance, Trans Pulse conducted a 10-week survey of 2,873 transgender and non-binary people across Canada. Their results showed that amongst the rainbow seniors who participated, 63% foresee discrimination from healthcare providers (1) and 22% were continuously misgendered by emergency room healthcare providers (Devor et al. 5). A participant from Mock et al.'s study shared their account of being misgendered by medical providers. Moreover, "online medical information was of particular significance to trans women and men because "it's hard to find a doctor that is trans friendly…that even knows what it means to be trans" (Michael, trans female focus group) (540). Looking for affirming services was daunting for trans people pre-pandemic, and stay-at-home mandates further isolated trans participants. For QDD001, reduced access to essential services, diminished social support, and barriers to freelance work contributed to a heightened sense of isolation and disconnection from 2SLGBTQ+ communities in Ontario. Efforts to provide alternative and tailored solutions for

specific communities, such as Trans Women of Colour, can help mitigate some of these barriers, and could foster more welcoming and supportive environments for trans older adults.

Societal Barriers:

Device Access:

The affordability of ICT is a barrier that generally affects the older adult population. My data further supports research on how the rising cost of new devices impedes older adults from fully benefiting from the digital world. Technological advancements and innovations move quickly. As a result, ICT devices become incompatible or unusable within a few short years of owning them. Additionally, the cost of smartphones, tablets, and laptops has risen with inflation. Based on Abdelaal and Andrey's report, 14% of people living without the internet described the cost of equipment as the reason for not purchasing a new device or broadband services (14). Relying on older devices can be challenging because older smartphones, tablets, and laptops may not run new software like Zoom. Additionally, without high-speed internet devices rainbow seniors may struggle to run software that requires high-speed internet. For some participants, their devices exacerbated barriers to video conferencing,

> "My older laptop needed to be replaced because it was too slow and unreliable in its ability to connect to the Internet, especially to Zoom and other virtual meeting platforms."
> - QDD003

> Similarly, QDD026 encounters multiple challenges with using Zoom:
>
> "Desktop has no camera so can't use [it] for Zoom. [My] laptop will not work for Zoom[.] Too much bandwidth[.] Zoom only works on my tiny tablet, limiting what I see."
> - QDD026

These participants acknowledged how incompatibilities between their devices and software limited their abilities to access online programming and services. Pre-pandemic, video

conferencing was uncommon outside of workplaces. It was typically used by working professionals. Many older adults had never heard of Zoom until the pandemic began and stay-at-home mandates were enacted. While they may have been familiar with the logo or brand name, their knowledge of how to navigate and use the platform functions was limited. Training older adults on various telecommunication platforms can be difficult since each one uses different interfaces. Additionally, using ICT was optional pre-pandemic, because some older adults had access to a variety of in-person social services. Overnight, Canadian businesses and service providers became reliant on virtual platforms to connect with their clients. Participants like QDD026 who could not upgrade their devices early on in the pandemic quickly became excluded from participating in video conferencing platforms. For those who did consider upgrading their devices, affordability was another barrier. As QDD003 indicates, replacing their device would improve their internet usage experience. Low-income 2SLGBTQ+ older adults were constrained in their options for affordable device upgrades, leaving them reliant on their old devices. In addition to experiencing connectivity barriers, participants faced challenges acquiring the skills needed to fully utilize ICT.

Training Opportunities:

Participants indicated the importance of having access to technology support programs during the pandemic. Survey data indicated that some participants did not require any technology assistance (8%), while others (18%) reported having no one to support them with their devices. One participant shared:

> "I honestly cannot take advantage of the various features due to equipment, training, and bandwidth limitations."
>
> - QDD026

Another expressed frustration with having to ask for support:

> "I would love a tutorial on editing, animation, and graphics. We are forced into all this due to the pandemic and it is frustrating always asking a young friend or family member for help. You always have to work according to their schedule, and I would prefer to know the technology for myself rather than sit and wait for someone to do it for me."
>
> - QDD015

The written responses provided minimal insight into the technology support networks rainbow seniors used. QDD026's response expresses frustration with being unable to take advantage of the devices he owns. He does not elaborate on what he means by training, but I suspect he is referring to technology support training. QDD015 expresses enthusiasm for learning about new devices but is apprehensive to ask for support. They went on to explain that they would rather be knowledgeable about new technologies than wait for someone to assist them. Autonomy and independence were important for QDD015 who strived to learn new internet tools and features.

Internet Affordability

Fourteen participants disclosed that they earned more than $45,000 annually (See chapter three). Participants who reported a higher income were less likely to face challenges with internet and device affordability. In chapter three, table 33 shows that respondents in group three were less likely to view the internet as less affordable during the pandemic. One participant from this group stated,

> "The pandemic barriers I am experiencing have little to do with the nternet and mostly to do with the lack of access in the community for seniors."
>
> - QDD012

For QDD012, the cost of the internet was not a concern for them. His barriers related to feeling socially isolated and disconnected from his community.

Class status played a significant role in exacerbating digital divide barriers. Many participants shared frustrations with the rising cost of internet plans in Canada. Across Canada, 15% of households cannot afford high-speed internet access (Abdelaal et al. 9). Due to high internet prices, low-income 2SLGBTQ+ older adults experienced struggles with affording their internet plan; some even choose to live without it. Fifty-one percent of the respondents said the internet became less affordable during the pandemic. Study participants who were 2-Spirit, Non-binary, Trans, Bisexual, and Lesbian reported lower incomes compared to the gay men who participated in this research. Affordability challenges were shared in their written responses:

> "I use Rogers, and it's expensive and not always reliable."
>
> - QDD019
>
> "I have DSL, which means I cannot watch films or streaming… the bill to upgrade is double."
>
> - QDD048

Internet affordability is not always the primary barrier to internet access. While high-speed internet is common in Urban cities like Toronto, people in Rural Ontario have poorer access to reliable high-speed internet and pay higher fees for internet and data plans.

> "Maximum speed of 5[GBPS] [for unlimited Rural] connection. Difficult/unstable for video conferencing. Primarily internet connectivity. Internet [over]load at home as all family members were using [a] rural connection. Tried installing [a] second line/modem, but Bell could not comply due to cable limitations in our area."
>
> - QDD016

Rural communities in Canada have limited access to the internet and are dependent on telecommunications companies like Bell or Rogers to improve their internet access. These monopolies contribute to digital divide challenges by ignoring the telecommunication

infrastructure needs in rural regions. For QDD016 living with family in a rural region and having a slow broadband connection limited her internet usage. Her response indicated that cost was not of concern, because she could afford to get a second line/modem, but Bell could not accommodate this request. Internet speeds are a common issue in rural communities and on reserves, as Abdelaal et al. explain,

> Canada continues to face urban-rural inequalities in internet availability at sufficient speeds. Although 98.6% of urban households in Canada have internet speeds available at the 50/10 Mbps target, more than half of rural households (54%) and almost two-third (65%) of First Nations reserves cannot connect to the internet at the same speed (7).

Poor broadband speeds hinder the online user experience because it makes it more challenging to load webpages, view videos, attend Zoom meetings, and download content. In rural communities, internet overloads commonly diminish the user's experience. Therefore, while affordability was not a concern for QDD016, her dissatisfaction with her internet speeds was a barrier that likely impacted many people living in her region during the pandemic.

While many participants spoke about the importance of reducing the cost of internet plans, others shared positive experiences with receiving subsidized internet access. QDD018 shared a story about how her internet access improved during the pandemic:

> Originally, I paid individually for my internet provider for my desktop computer. We also had a computer room in my housing co-op apartment building which I occasionally used. When the pandemic hit, the computer room was closed. Because the internet was and is so important due to the pandemic, my building management provided internet for the whole building. Rogers already provided basic cable TV to the building so internet was added to the bulk agreement.
> - QDD018

Pre-pandemic, home internet was not a luxury that QDD018 opted into. However, once the computer room closed in her building, the building management recognized the increased demand and need for home internet access. Property management acknowledged the need to provide

internet access during the pandemic and proactively worked with Rogers to add internet into the bulk agreement improving QDD018's internet usage experience. For QDD0018, having on-demand access to WIFI in her home during the pandemic was a huge relief and helped relieve her anxieties toward pandemic stay-at-home mandates. The property management company's efforts to ensure people stayed connected during stay-at-home mandates are an excellent example of a concrete strategy for removing barriers to the Internet.

Privacy and Safety:

Some participants discussed the lack of privacy they had in their homes. In some cases, respondents lived with family members or roommates. In other cases, they lived in communal living spaces and shared common areas with other residents. Privacy concerns are considered an environmental barrier in this study because, at the pandemic's peak, stay-at-home mandates forced people to stay in their homes and socialize online. Stay-at-home mandates put many rainbow seniors at risk of having their identities disclosed to friends, family members, caregivers, and potentially other residents who may not be supportive of their gender identity and/or sexual orientation. Being outed to people who are not affirming or respectful of gender and sexual differences can have detrimental consequences. Having their identity outed can lead to violence, eviction, and ostracization (Redden et al. 121). For example, participant QDD016 shared that:

> "[I have a] very unsupportive wife [and live in a] conservative rural community."
> - QDD016.

Similarly, participant QDD023 shared that:

> "My roommate isn't sensitive to my feelings regarding LGBTQ+ issues."
> - QDD023

In some cases, participants experienced overt harassment:

> "Roommate has intentionally misgendered [me] and also used my vulnerabilities as a license to be cruel."
> - QDD002

Living in communal settings, such as shared apartments or homes with roommates or family members poses challenges for rainbow seniors who require privacy to engage in 2SLGBTQ+ programming and services safely. In Ontario, living alone is a huge privilege that many people cannot afford. Participants that earned more than forty-five thousand a year primarily reported that they lived with family (2) or with a partner (11). Comparatively, participants who earned less than twenty-five thousand per year reported living alone (10), with family (3), or with a roommate (1). This data indicates that higher earners were more likely to live with their significant other or a family that was affirming of their gender/sexual orientation. While QDD002 did not explicitly say they have privacy concerns, their response indicates that Ontario stay-at-home mandates made it harder or unsafe for them to participate in virtual spaces for 2SLGBTQ+ communities. The combination of living in a communal setting and concerns about hostile roommates or family within the household exacerbated the digital divide for these participants. For QDD016, having an unsupportive wife indicates that seeking out 2SLGBTQ+ services online during the pandemic could compromise her mental wellbeing by creating more friction with her wife. Non-affirming living environments deterred her ability to be her whole self at home. Similarly, QDD023 disclosed that her roommate was insensitive to their feelings on LGBTQ+ issues. Her comment suggests that talking about or engaging with 2SLGBTQ+ content resulted in non-affirming conversations. Leaving an unsafe living environment may seem like the obvious solution for rainbow seniors, however it is not a realistic or easy avenue to pursue.

Moving away from unsafe and non-affirming housing situations is not a viable option for many low-income rainbow seniors. Marco Redden et al published the report "LGBT Housing Matters: Results of the Canadian LGBT Older Adults and Housing Project." The national housing survey focused on gathering data on housing issues that low-income rainbow seniors face. Over one-third of the survey participants (36%) reported negative housing-related experiences in the past five years and almost half (48%) felt uncomfortable disclosing their sexual orientation with staff or landlords (Redden et al. 11). The absence of safe, affordable, and affirming housing has negative impacts on rainbow communities, as people are forced or feel they must conceal parts of themselves to acquire housing and other services. Moreover, rainbow seniors rely on community hubs to access key services and ICT.

Public internet access

In Canada, stay-at-home orders exacerbated digital divide barriers because public spaces with WIFI and computer labs closed. 2SLGBTQ+ people depend on community hubs that are welcoming and affirming to our communities. These public spaces are essential for supporting 2SLGBTQ+ older adults with using the internet. Pre-pandemic, participants indicated that they visited public spaces like libraries, local cafes or restaurants, community centres, university campuses, work, public transit, and shared common spaces in their residences to access the internet. Thirty-nine percent of survey participants indicated that barriers to accessing the internet increased during the pandemic (See Chapter Three). According to one participant: "The Lounge where the internet is located is only open from 9 AM – 9 PM" (QDD051). During the pandemic, many apartments, co-ops, and long-term care homes closed their common spaces because of stay-at-home orders (Jonsson "Social Isolation" 1). In QDD051's case, his residence had set hours for

the lounge and closed access after 9:00 PM. The inability to travel somewhere else limited QDD051's internet access to certain times of the day. Additionally, the lounge is a communal space, and it is not guaranteed that other residents will be welcoming of online discussion groups that cater to gender and sexually diverse people. This isolated residents by limiting their willingness or ability to give up the safety of their apartments or rooms (e.g., in long-term care homes, group homes, or assisted living facilities) in order to use communal ICT devices. Lack of access to communal spaces also meant a loss of WIFI access.

Suggestions for Improving Access

Study participants were asked to share their suggestions and strategies for improving access to ICT. Responses ranged from requests for more internet access, Digital Literacy programs, and in-person one-on-one digital mentorship. Participants were forthcoming with suggestions about how social service providers could improve internet access and usage. One participant suggested that "A community computer tech mentoring resource would be so helpful. If it could be done now with good Covid protocols that would help so many people survive and thrive" (QDD031). The need for in-person digital literacy support was essential to participants. QDD016 shared that:

> As a trans woman, I would like to see less online support and more face-to-face local support. I understand the issues raised by the pandemic, but I am uncomfortable on camera and do not feel I can [effectively] read a person's complete body language. As trust is a huge element to coming out, and body language represents 75% of communication, I feel that online tools fall short of the need.
> - QDD016

Similarly, another participant stated:

> Step-by-step in-person instruction[s], advocacy for the internet as a human right making it free and very affordable to everyone, safe public access everywhere, complaint-driven hate speech removed from forums, community groups help with fixing, upgrading and setting up equipment, and subsidized cost of equipment reusing old equipment.
> - QDD026

These suggestions indicate that affordable internet, safe public internet access, equipment subsidies, technology support, and increased efforts to address the rise of online hate speech are a necessity. Survey questions on online hate speech and harassment were not included in this study but should be further explored in future research. 2SLGBTQ+ communities require access to welcoming and affirming services that they trust. People who can access community-based care that maps onto their identities as women, racialized, disabled, or older is a privilege. This is not the case for 2SLGBTQ+ people. Government agencies should open funding streams that support 2SLGBTQ+ organizations with developing and implementing programs that address digital divide inequalities and inequities experienced by 2SLGBTQ+ older adults.

Discussion:

My MITACS research hypothesized that rainbow seniors would be disproportionately impacted by the pandemic because of unaffordable internet plans, limitations in digital literacy, unsafe living environments, and the lack of technology support (Jonsson "Exploring the Potential" 56-7). While some digital divide barriers were unique to rainbow seniors, there were similarities with the to digital divide scholarship that outlines the common struggles heterosexual older adults face in using the internet. The data from my community needs assessment supports some of my early hypotheses on the intersections of queerness, aging, and ICT. Digital divide scholarship indicates that the general older adult population in Canada and the United States experience heightened barriers to accessing and utilizing the internet compared to younger generations. Many factors contribute to this, such as income status, technological knowledge, interpersonal relationships, physical environments, and cognitive abilities (See Chapter two). Stay-at-home mandates made visible digital inequalities and inequities in Canada and created new barriers for rainbow seniors that may not have existed pre-pandemic.

Amongst the study participants, it was apparent that internet usage was linked to income status. Participants in group three were predominantly Caucasian, married, and earned higher incomes (see tables 28, 29, and 30). Their higher income status could be linked to having dual incomes and sharing household expenses with their partner. Many participants in the other two groups did not live in dual-income households, with 71.4% of the participants in group one living alone. Participants who reported regular access to broadband services were more confident in their ability to use the internet. This is especially true for group three, wherein all the participants indicated that they did not need assistance to access the internet. My findings correlated with Fang, M. et al's ("Exploring Privilege" e1) research on digital access and inclusion. Their article explains how older adults with higher incomes have the financial means to own devices and afford internet plans. Like non-2SLGBTQ+ older people, rainbow seniors who had the financial means to have personal internet access often opted into that service. Low-income 2SLBTQ+ older adults would benefit from additional support to afford ICT. Organizations that offer online services for rainbow seniors must be aware of affordability challenges and should consider allocating funding to support device and broadband needs.

All Canadian low-income older adults would benefit from affordable internet access. Since the internet has evolved into an essential tool in the twenty-first century it must be viewed as a basic human necessity. Organizations, government agencies, and private companies are all responsible for taking proactive steps to address, prevent, and remove digital divide barriers. Government officials and telecommunications companies should explore opportunities to collaborate to provide universal free internet access, at least for low-income people, including rainbow seniors. In lieu of this, reducing or subsidizing the cost of internet and data plans would

improve the likelihood that low-income older adults would opt into installing internet in their homes. Study participants did indicate that Internet affordability hindered their participation in online social programming and services for rainbow seniors.

For rainbow seniors with digital literacy gaps, having community-based programs that offer training and support is a necessity. While their digital literacy needs are not exceptionally different from heterosexual people, having access to culturally sensitive local programs fosters community connections and learning opportunities with like-minded folks. Heterosexual people are often privileged with an abundance of service provisions and are not burdened with having to locate services that are affirming of their dominant identities. When rainbow seniors access services that cater to the general public, they are often vulnerable to the possibility of being denied services, having to disclose their gender/sexual identity, or being perceived as 'different' by providers. As shown in my literature review (chapter two) and earlier research findings (chapter three), queer-friendly spaces are crucial for vulnerable 2SLGBTQ+ older adults because these spaces often integrate policies and practices that make rainbow seniors feel welcomed, acknowledged, and supported. Fang M. et al. (Tech Access) explain the significance of culturally sensitive community programs for older adults by stating,

> some community organizations have built trusting relationships with older adults. Older adults trust these organizations and consider them as places to go to when they encounter challenges. These organizations can be an avenue for introducing ICT's to older adults and support older adults to cope with technology challenges such as providing tech help programs (3).

Rainbow seniors are more likely to trust 2SLGBTQ+ service providers because they know there is a higher likelihood their needs will be met. Involving younger 2SLGBTQ+ people in the development and delivery of in-person digital literacy programs can enhance community support

systems. Step-by-step in-person training and instructions can assist rainbow seniors in learning how to use technology confidently, locate virtual social programs, and access relevant online resources. In-person support programs provide spaces to safely explore rainbow programs and services online. The lack of accessible queer spaces during the pandemic uniquely impacted rainbow seniors because they lost access to community hubs. Safety and trust were two factors that intertwined with 2SLGBTQ+ older adults' feelings towards virtual spaces since they required a sense of security to confidently locate and engage with online programs.

Rainbow resource portals with an accessible website and search design can be beneficial for 2SLGBTQ+ older adults who are searching for resources in their region. Study participants indicated that an online hub that directs them to affirming 2SLGBTQ+ programming and services is a necessity. Service providers that manage resource portals must review their options for accessible website designs that are easy for rainbow seniors to navigate. Accessible website designs can include compatibility with text-to-speech software, the use of accessible fonts and sizes, and minimizing low-vision barriers by using a construct checker on all visuals. Word, cloud, or auto-fill software are also tools that organizations can use to enhance their database. Implementing these suggestions can improve a user's experience by meeting their accessibility needs.

2SLGBTQ+ older adults with disabilities require extra support and adaptable devices to access online spaces. Low-vision, cognitive impairments, and dexterity impairments require ongoing one-on-one training with digital mentors who are knowledgeable about their physical and cognitive disabilities. This is especially true for people living with Alzheimer’s and dementia. These community members may not benefit from digital literacy programs for general populations

because those programs are not always prepared to assist people with disabilities. Organizations that serve 2SLGBTQ+ communities should work with digital literacy providers like Connected Canadians, who can support them in becoming knowledgeable on assistive and adaptive technologies. Connected Canadians train youth to act as digital mentors and pairs volunteers with older adults who require technology support. Tailored programs for this segment of the 2SLGBTQ+ population can have a positive impact on minimizing the effects of social isolation, loneliness, and early-stages of cognitive impairments. Even with the proper support systems in place, challenges still arose. Given a number of these conditions, in addition to one-on-one training, some rainbow seniors may require ongoing ICT one-on-one support.

During the pandemic, I delivered a tablet to an older gay man. He received digital mentorship to learn about his tablet, but he did not complete the program. The Connected Canadians team contacted me to get in touch with him so they could continue to provide mentorship support. It took me months to reach him and when I finally did, he explained that he experienced a stroke which caused some memory loss. He reluctantly shared that he forgot everything he was taught about his iPad and was embarrassed to share this information with the Connected Canadian mentors. I met with him in-person to get him back on track with using his iPad and re-connected him with the Connected Canadians program for further support. This is just one incident of how a person's health and cognitive limitations can hinder their ability to use ICT.

Stay-at-home mandates increased the need for more community-based digital literacy and technology access programming geared toward rainbow seniors. My findings indicate that the development of digital inclusion programming in 2SLGBTQ+ community hubs would mitigate the digital divide barriers 2SLGBTQ+ older adults face. A consolidated system of resource sharing

that is well advertised is another potential strategy that could mitigate challenges with accessing resources. Survey participant QDD030 suggested the need for a provincial search system for 2SLGBTQ+ programs. They state:

> A community-wide or provincial queer internet resource would be very useful with information on available community resources. This is particularly important for areas outside of the GTA where LGBTQ services may be fewer or resources are sometimes more difficult to access. These resources should include how to access LGBTQ-friendly healthcare, housing and community supports.
>
> - QDD030

QDD030 affirms that outside of the Greater Toronto Area have less access to 2SLGBTQ+ services. Digital inclusion strategies are not one-size-fits-all all. As my data shows, technophobia, minimal broadband access, and outdated devices increased barriers to online participation. Assessing the needs of low-income youth, people with disabilities, and newcomers will improve digital literacy and accessibility. Project managers must work with their teams and the communities they serve to enact the best strategies for getting their clients online.

Recommendations

This section offers some recommendations that organizations can use to mitigate digital divide challenges. Internally, service providers need to implement strategies and practices that allow them to evaluate the technological needs of the communities they serve. Externally, professional development opportunities and support strategies (i.e. technology mentorship programs and device lending initiatives) can grow an organization's ability to offer safe, inclusive, and affirming online programs. Service providers should explore training opportunities for their staff and volunteers in order to equip them with the tools, knowledge, and skills needed to be proactive in supporting clients who experience digital literacy and access barriers.

Organizations should consider providing upskill opportunities for all staff and volunteers to improve their digital literacy skills. Training topics can include, online accessibility features, foundational knowledge of 2SLGBTQ+ communities, digital mentorship, misinformation and disinformation, and digital safety and privacy. Additionally, upskilling on common tools like Microsoft Word, Excel, and PowerPoint is beneficial. Annual opportunities for upskilling will ensure organizations are continuously developing their teams technological capabilities, which will make them more confident in helping the communities they serve.

Increase community engagement on topics related to digital inclusion, access, and safety. Older adults, regardless of their social location are more susceptible to being targets of online scams. Educational opportunities for rainbow seniors on how to detect and avoid falling victim to scams, especially ones that might target them in relation to their identities, would be beneficial. According to the article "LGBTQ+ Online Scams: How to Spot Them and Stay Safe from Harm," by Elly Hancock, gender and sexually diverse people are more at risk of being targets of online scams because of their identities (par 3). She states that "Certain communities with sensitive or hidden identities are particularly vulnerable, whether related to sexuality, race, gender, or even religion. Scammers latch onto this information and lure you in by pretending to share the same views or having the same orientation" (Hancock par 6). Upon building trust with victims, scammers will seek personal information such as sexual images, videos, addresses, banking details, and other information that can be used for monetary gain or control (Hancock par 7). Service providers can conduct needs assessments to better understand digital divide challenges in the communities their organization serves and to take proactive steps in protecting rainbow seniors from becoming victims of online scams. Collecting data on the relevancy usability, and

effectiveness of online services and resources can optimize how users access these platforms. Creating space to have open discussions about the digital divide with community members will foster a collaborative approach to bridging digital barriers.

Identify tangible solutions for supporting community members with their technology needs. This can include launching a technology lending program, training staff or volunteers to act as digital mentors, and integrating accessibility tools into online services. Working with community partners and members of the communities you serve will increase the likelihood that direct technology support projects will be effective.

Limitations:

2SLGBTQ+ communities are made up of a diverse population that includes Black people, Indigenous people, people of colour (BIPOC), people with disabilities. This survey only captures a very small portion of our communities' experiences with digital inequalities and inequities. Fifty-three percent of the survey participants identified as white. Digital divide research that includes BIPOC rainbow seniors is beneficial to further our understanding of their nuanced experiences with digital divide barriers. Additionally, this data did not fully capture how gender expression or disability shape individual experiences with ICT.

As mentioned in chapter three, hosting an online survey limited my ability to reach rainbow seniors who are digitally disconnected. Participant QDD007 was aware of this issue, stating that "even this survey will not reach the people in need of tech help." During stay-at-home mandates, York University ethics protocols prioritized the health and safety of both researchers and participants. They had strict guidelines on how research could be conducted during the pandemic. QDD051 is the only participant who received a physical copy of the survey, and this is because

they were connected with me directly by another participant. Future research should use in-person interview methods to collect more accurate data on rainbow seniors' online habits.

A Research study focused specifically on LBTQ+ or BIPOC rainbow seniors would deepen our understanding of how sex, gender, and sexually diverse women, trans, non-binary, and racialized folks locate and access digital tools. A large portion of the participants in this study identified as gay (41%). Gay men, especially white cisgender gay men, are known to have more career opportunities that give them greater access to financial stability compared to non-white and racialized LBTQ+ community members. More often than not the queer movement and research on queer folks has excluded BIPOC communities (Labelle 249). While my research strived to reach a wide variety of rainbow seniors in Ontario, challenges to conducting research during the pandemic limited my reach. More consideration is required to actively work with and include queer BIPOC voices in future digital divide research.

I gathered responses from participants across Ontario however a majority of respondents (59%) resided in Central Ontario. I had no responses from rainbow seniors who lived in Northeastern Ontario and Northwestern Ontario. Future research should prioritize communities outside of Central Ontario to gain better insight into how smaller communities, especially rural 2SLGBTQ+ communities, access and use the Internet. Having a study that solely focuses on the digital divide barriers 2-Spirit people who live on reserves or in rural and urban areas is necessary to identify how their digital divide needs differ from LGBTQ+ settlers.

There are some demographic questions that I now wish I included in my survey. In the demographics section, I omitted a question about people's sex and pronouns. I only captured how people identified on the 2SLGBTQ+ spectrum. The omission of data on people's preferred

pronouns (she/her, he/him, and they/them) and their sex (male/female/intersex) made it difficult to truly reflect their identities in my analysis. Additionally, the question on income status was limited to a specific range (below $15,000 - $45,000) because I wanted to capture the experiences of low-income 2SLGBTQ+ folks with ICT. However, having a broader range would have allowed me to further identify how class status enhanced rainbow seniors' abilities to access and use ICT.

I anticipated that 2SLGBTQ+ identity would play a bigger role in respondents' answers, but that did not turn out to be the case. To gain more insight into how their experiences compared to non-2SLGBTQ+ older adults, I should have distributed two surveys. One for rainbow seniors and another for non-2SLGBTQ+ older adults. This would have allowed for a comparative analysis of the data and would provide more insight into how the digital experiences of these two groups differed. Instead of primarily multiple-choice questions, I could have included more short answer questions. This may have led to more detailed responses about the unique challenges they faced with locating queer-friendly resources and programs online. Some questions I could have asked are: what type of 2SLGBTQ+ resources do you look for on the internet? How does your 2SLGBTQ+ identity bear on your online or digital experiences if at all? What kind of online programs do you enjoy participating in? Do you experience any anxieties or fears about being on the Internet? Do you rely on any digital platforms to get your care needs met? These questions could have led to more relevant responses on how their identities, as rainbow seniors, made the digital divide barriers they experienced different from cisgender heterosexual older adults.

As mentioned in chapter three, advertising on social media led to many false entries because bots and individuals outside of Ontario were able to take the survey multiple times. In the future, I would implement additional screening protocols to protect the quality of the data. This

includes a pre-screening that would indicate if participants qualify; upon qualifying, participants would receive a password to the survey. I would avoid cash incentives in exchange for surveys and only offer in-kind gift cards. These are just some of the protocols I would add to future surveys to ensure the data is accurate.

In general, digital divide researchers would greatly benefit from studies that extend feminist and queer theoretical approaches such as intersectionality and heteronormativity to examine the challenges equity-deserving populations in Canada experience when accessing remote service provisions. More of this research will potentially inform social programs, subsidies, and legislative policies that support digitally inclusive infrastructures. The modern world is increasing its reliance on new technologies every day and the research being produced in this field must reflect those changes. Removing digital inequalities and inequities will give people the ability to use and benefit all the services that are now available online.

Conclusion

This chapter drew on 2SLGBTQ+ older adults' first-hand experiences with digital exclusion. It captured how age and technology intersect with class, disability, and sexual orientation to shape individual experiences of the digital world during the pandemic. To summarize, participants faced due to the global pandemic increased their reliance on virtual social services and caused new digital divide barriers to emerge that are unique to them. Financial disparities, unsafe living environments, digital literacy gaps, limited technical support, inaccessible online designs, and an inability to access public computers or WIFI contributed to the digital inequalities rainbow seniors faced during the pandemic. Environmental barriers, like living with affirming relatives, roommates, or support staff caused challenges with accessing and fully

utilizing online service provisions for rainbow seniors. Additionally, stay-at-home mandates during the pandemic barred access from community spaces that 2SLGBTQ+ older adults relied on. Service providers who serve rainbow communities through online programming and services should identify and address the unique digital divide challenges within these communities. Building their capacity to remove digital inequities and inequalities for rainbow seniors would mitigate future challenges to ICT usage. The next chapter outlines key strategies and recommendations that service providers can adopt to mitigate digital divide challenges and to improve access to virtual services.

Chapter Five
Conclusion

Introduction

I used a participatory action research (PAR) approach because it bridges community activist work and research. It is a research method that requires close collaboration with communities that are the subjects of study (Davis et al. 92-3). Community consultations, meaningful collaborations, honesty, and reciprocity are key components to creating impactful community research projects. When community groups, organizations, and researchers unite on key issues, the possibilities are endless. My dissertation research also transformed into a community initiative that aims to address colonial systems that gatekeep access to ICT and that fuel the digital divide in Canada. This project resists dominant assumptions about information and communication technology (ICT) usage to illuminate how digital inequalities and inequities impact equity-deserving groups, like 2-Spirit, Lesbian, Gay, Bisexual, Trans, and Queer (2SLGBTQ+) older adults.

The Ontario Digital Literacy and Access Network (ODLAN) began as an initiative aimed at addressing the digital divide challenges rainbow seniors in Ontario faced during the COVID-19 pandemic. Our team consists of researchers, community leaders, and educators. Our mission is to remove digital literacy and access barriers. Using a diversity, equity, and inclusion (DEI) framework, ODLAN supports service providers with the tools, resources, and training to upskill their digital inclusion strategies. To build a digital inclusion strategy, service providers must be knowledgeable about the significance of fostering safe, affirming, accessible, and inclusive digital

spaces (ODLAN). ODLAN is a volunteer-led, action-based community initiative that advocates for universal internet access. Since launching ODLAN, we have successfully developed an index of publicly available resources and we have developed research that contributes to ongoing work on digital safety and access. Moreover, ODLAN is paving the way as a Canadian guide for professionals and community leaders interested in developing their knowledge on digital inclusion, safety, and access.

My curiosity about digital barriers alongside my interest in improving the lives of 2SLGBTQ+ older adults drew me to this research. This research could not have been conducted without a knowledge mobilization component because it was being done at a time when digital divide barriers were heavily exacerbated by stay-at-home mandates. It would have been hypocritical for me to conduct a study on the digital divide challenges rainbow seniors faced without directly supporting them in becoming digitally connected. The desire to be creative, innovative, and resourceful inspired me to build a multimedia knowledge translation initiative wherein, I provide an in-depth explanation of the significance of using knowledge translation strategies alongside participatory action research (PAR). The initiative engages with community members, partners, and government officials who may benefit from my research. Furthermore, I aim to inspire social science researchers to think creatively about how they can share their research with the communities in which they work.

Knowledge Mobilization

Knowledge mobilization (KMb) is a broad framework that comprises a range of activities related to translating academic research into accessible information for the general public. Alex Bennet and his team explore the concept of KMb in their book “Knowledge Mobilization in the

Social Sciences and Humanities: Moving from Research to Action". They explain that KMb "brings knowledge, people, and action together to create value" (Bennet et al. 11). It is an approach that requires researchers to summarize, produce, and share knowledge using multiple mediums that make their work accessible to the general public. Examples of KMb include but are not limited to, infographics, scope reviews, podcasts, blogs, video logs (vlogs), digital archives, and webinars. KMb allows social science researchers to establish a flow of shared knowledge, wherein community-based knowledge streams enhance research-based knowledge development and redistribute that knowledge back to the community (Bennet et al. 11). KMb is beneficial to social science researchers who are committed to engaging with subjects of their research in a meaningful way. For me, it is an approach that enhanced my ability to engage with theory, praxis, and action.

KMb is a tool that feminist theorists can use to develop innovative action-based research projects. KMb can be effectively used alongside intersectionality to address the challenges equity-deserving groups face in gaining equitable access to essential services. Crenshaw asserts that Intersectionality encourages feminist scholars to be creative with how they "explore uncharted territory" (Davis 79). Patricia Hill Collins and Sirma Bilge claim that Intersectionality is more than just a method of doing research, it is a tool used to empower people (37). Intersectionality is a praxis and practice that expands avenues for knowledge production. Researchers must be attentive to the process of knowledge production, recognizing that academic scholarship is not necessarily accessible to the general population. According to Collins and Bilge, "within a dialogical concept of education, learning also entails shared knowledge with a community of learning" (164). Researchers who integrate a PAR approach to their work must be knowledgeable on the needs of the communities in which they work. They should employ a dialogical engagement that not only

educates community members on theoretical frameworks using accessible language, but also empowers them to put theory into practice. To summarize, being well-versed in knowledge mobilization will enhance how PAR is conducted and will establish new avenues for reaching subjects who are involved in our research.

To improve my KMb strategy, I enrolled in a certificate program at York University. My first introduction to KMb was through the MobilizeU program offered by Innovation York at York University. This 8-week course provided the knowledge, tools, and resources for me to think critically about how knowledge mobilization connects to my research. The course facilitators invited researchers and community organizations from across Canada to speak about KMb projects, and how they transfer knowledge across various sectors and communities. Taking this course was an 'AH HA!' moment for me because it helped me identify my dissertation project as a KMb initiative. I had already integrated KMb strategies in my work, but I was not familiar with it as an academic approach to knowledge translation. This helped me to solidify ODLAN as a KMb project that actively engages with 2SLGBTQ+ organizations and communities alongside the development of my dissertation. In short, KMb is a core element of my work.

As a 2SLGBTQ+ community member, activist, and researcher, I am responsible for ensuring that the community I work with can access relevant research information, and understand the significance of this research and how it will be put into practice. Digital divide scholarship explains how several factors, like technophobia, digital literacy gaps, and financial disparities contribute to the underutilization of ICT by older adults. Having an awareness of the overarching challenges, alongside the unique barriers rainbow seniors faced demonstrated that there was a need for both more research and advocacy work on the digital divide. Creating a non-profit organization

with a public facing website gave me an avenue to share, educate, and connect with folks who would benefit from my research. ODLAN is a knowledge mobilization project that opened new doors for developing projects outside of my dissertation that would address the immediate needs of rainbow seniors during the pandemic.

The ODLAN website was designed and compiled in December 2020. Using Microsoft Word I drafted a vision of what ODLAN could look like. First, I wrote down a working mission statement, our approach, and our vision. Then, I outlined my initial objectives, which included a database of digital literacy and technology lending programs for older adults in Ontario and educational resources on the unique challenges 2SLGBTQ+ older adults experienced online. Lastly, I wanted to reach out to digital literacy and access service providers to 2SLGBTQ+ organizations to learn about the challenges they may face with offering online programs. Once I established a strategic direction, I chose a name for my organization, purchased a website domain, and built the ODLAN website using WIX. WIX is a cloud-based web development service. Using a YouTube "how-to guide" I learned how to use the WIX platform and developed the first version of ODLAN's website. The website design process took two weeks to complete, with the support of ODLAN's co-founder Hannah Maitland. Upon completing this, I investigated what the incorporation of a non-profit organization would entail.

Federally incorporating a non-profit is a tedious but straightforward process. It required a small monetary investment to purchase the corporation's name and number. The hard work started once I completed this process because now, I had a non-profit organization to manage. ODLAN started with three core volunteers and three board members. We came together as a small group invested in promoting digital inclusion, safety, and access. In our first year we of operation we

focused on conducting research, building our network, producing educational materials, and capacity-building.

Conducting research helped us conceptualize the scope of ODLAN's work. An actor map is a visual overview of key influencers in a specific industry. Our actor map aimed to identify the key players in the queer technology industry, which is a very niche sector. Putting together an Actor Map was essential for identifying the organizations that would be invited to join the ODLAN's network. Our map aimed to identify 1) Queer-affirming technology support services 2) Technology support services for older adults, and 3) Technology support services for the general public. To determine if an organization was queer-inclusive or queer-friendly, I would first visit their website and review their service offerings to see if they specifically identify 2SLGBTQ+ communities as a population they served. The ones that were overtly queer-friendly were organizations that already offered programs and services to 2SLGBTQ+ people. Technology support services for older adults and the general public often did not specify the populations they served. If these providers did not have specific programs for 2SLGBTQ+ older adults, I would send an email to them to ask if they served rainbow seniors. When I did this, many service providers would respond to say that 2SLGBTQ+ seniors were welcome to use their programs and that they were unsure how many of their clients identified as 2SLGBTQ+. When I received responses like this, I offered to meet with the service provider to discuss how their organization could make their programs more welcoming for 2SLGBTQ+ people. This sometimes led to training opportunities, where ODLAN would provide an educational training session to these organizations so they could better understand the digital divide challenges that were unique to rainbow seniors. Our actor map informed the development of our online database and

categorization resources. Organizations that are visibly queer and/or queer-friendly received a rainbow checkmark on our website. This symbol was helpful for individuals who were looking for queer-affirming technology service providers in Ontario (Appendix G).

My MITACS research project was drawn on to raise awareness of digital inequalities and inequities (Jonsson "Exploring the Potential" 55). The first infographic shared on the ODLAN website was my "Digital Access Barriers" infographic, which I made for my MITACS internship (Appendix A). Sharing it publicly with 2SLGBTQ+ activists offered an avenue for bridging academia and the community sector to share in this challenge. It created an avenue for sharing how the pandemic exacerbated digital divide challenges for rainbow seniors This was the first step in presenting my concerns as a researcher and in opening up a dialogue about potential solutions to address digital divide barriers.

A priority of mine after completing my MITACS research project, was to create an online database of services that address digital divide barriers. From May to August 2022, with funding support from the Canadian New Horizons for Seniors Program, the ODLAN team successfully curated a database of digital literacy and access resources that would best serve low-income, beginner, older adult, and 2SLGBTQ+ Internet users in adapting to new technologies and online services. The ODLAN database is a one-stop resource center for service providers to learn about digital literacy and access barriers along with potential solutions to address these challenges. This database was created with the support of Dr. Melanie Baljko, a professor at the Lassond School of Engineering. Professor Baljko integrated the ODLAN initiative into her computer science course, which tasked students with developing the ODLAN database. Working collaboratively, we provided the information needed for students to design and build the database we now have. Our

capacity as an organization is dependent on volunteer support. Their contributions strengthen our abilities to provide training and resources that promote digital inclusion, safety, and access. This example shows the fruitfulness of academic projects that take a community-based approach. Establishing network relationships that assist with non-profit growth and capacity building are key components for success.

ODLAN relies heavily on volunteers to carry out our activities as a non-profit. Volunteers are often recruited through our network connections and speaking engagements. For example, I am often invited by York University professors to speak with their students on various topics, which include but are not limited to, rainbow seniors' experiences with long-term care, rainbow seniors' experiences with ICT, and knowledge mobilization. During these guest lectures, I have the opportunity to share my advocacy work and I let students know the process for becoming volunteers at ODLAN. ODLAN volunteers do not need any specific skills, they just need to be eager learners. We provide them with an onboarding process that shares the history of ODLAN and the different types of teams they can volunteer with. This includes our IT team, social media team, and research team. Volunteers primarily work remotely, have to commit to eight hours per month, and are supervised by our team leads or me, the executive director. To mitigate liability issues, ODLAN has both director's and officer's insurance and general liability insurance. As a remote organization, we do not require the same general liability insurance as organizations that have in-person services or programs.

Building a network of technology-focused organizations and queer-focused organizations opened a path for these two sectors to communicate. This allowed technology-focused service providers who work with older adults to engage with 2SLGBTQ+ coordinators who offered older

adults programs online. Creating this channel of communication between these two sectors opened up opportunities for partnerships that supported capacity building and program development. Hosting 'Meet & Greet' events allowed network partners to meet others. Additionally, I met with non-profit professionals from queer and/or queer-friendly organizations one-on-one, to ask them about the challenges they faced with addressing digital divide barriers and I connected with folks in the network who could assist them with mitigating those barriers. ODLAN quickly became a network knowledge sharing system for organizations who wanted to gain the skills and knowledge on how to support their communities online during the pandemic.

A multimedia approach is used at ODLAN to educate organizational leaders, government officials, and the general public. Through webinars and YouTube videos, we provided free educational opportunities to organizations during the pandemic. Our materials were beneficial to anyone who works with 2SLGBTQ+ communities, including rainbow seniors. Additionally, other equity-deserving groups can benefit from our resources because their digital experience can be similar to what 2SLGBTQ+ communities face. These webinars focus on specific topics like intergenerational aging, digital inclusion, and digital safety. They are intended to support participants in gaining the skills to assess and identify the technological barriers their communities face. All our webinars are recorded and posted on YouTube. This digital archive of resources ensures the information is publicly available to those who need it. Webinars are accompanied by supplementary materials to further support the learning process.

Infographics are graphic images that share information, data, or knowledge. It is a creative way to share information quickly and concisely. Infographics are a useful resource for people who are visual learners, people with limited attention spans, or for folks with limited free time.

Additionally, they are effective in reiterating information that can be difficult to grasp in long training sessions. Researchers who want to promote their work to the general public can benefit greatly from using infographics. ODLAN's infographics synthesize and explain specific topics related to digital inclusion, safety, and accessibility. Like our video resources, we make our infographics publicly available on our website for anyone to access.

ODLAN reaches our target audience using a variety of outreach methods. Over the last three years, we have grown our mailing list using MailChimp, which is a service used for communicating with our key stakeholders. Our mailing list contains many organizations, rainbow seniors, community leaders, and activists. A newsletter with updates about our services and program offerings is distributed quarterly to our mailing list and it is posted to our website. Our educational materials and research are promoted on social media platforms, which include Facebook, LinkedIn, Instagram, and YouTube. Anyone who visits our website will have access to all the educational materials (webinars, infographics, fact sheets, etc.), research reports, news articles, and information about our consulting services. Additionally, we attend in-person community gatherings, conferences, and workshops that give us opportunities to share our educational materials with key stakeholders. For instance, in March 2023 I traveled to Kelowna BC to attend Fierté Canada Pride annual conference where I promoted our research project "Possible Practices for Protecting Organizations from Queerphobic Online Hate," to 2SLGBTQ+ community leaders, activists, and government officials. I will discuss this project further in the upcoming paragraphs. The ODLAN team is continuously looking for ways to improve our outreach strategies that will introduce new community members and potential clients to our organization.

Collaboration is essential for building the capacity of community-based initiatives. Working with Ontario-based organizations to improve ICT access and support for rainbow seniors is a priority at ODLAN. When I worked as an outreach coordinator at Rainbow Faith and Freedom, I quickly discovered that many people in the non-profit world work in silos. This means that they commonly communicate with other people in the same industry as them. When I launched ODLAN, my objective was to bridge the relational gap between technology-focused non-profits and queer-focused non-profits. In Fall 2021, ODLAN worked with Connected Canadians to provide iPad and technology support to rainbow seniors in Toronto. Connected Canadians is a Canadian charity based in Ottawa. Their mission is to connect older adults with technology training and support. They partnered with Bruyére Foundation, Ride to Connect, and Amazon to make this program a reality.

By collaborating with Connected Canadians, we were able to fulfill our goal to directly serve rainbow seniors who had previously been digitally disconnected from their communities during the pandemic. While working with the participants of this program, I was able to gain better insight into why adapting to the internet and new hardware was a struggle for them. The Toronto Star reported on this local initiative. The article titled "Toronto seniors get help bridging the digital divide," shared the struggles rainbow seniors faced with the pivot to online-only services. leZlie lee kam recalls how all her in-person activities were put on hold at the beginning of the pandemic, and leZlie became isolated in her home. Her lack of technological capabilities made working from home incredibly challenging but leZlie was determined to continue her activist work. Together, leZlie and I strategized on how we were going to get her online, which required an upgrade to her devices. Gordon states:

> Jonsson witnessed kam's need first-hand and her research told her there were many more queer seniors in similar situations. So, she got to work. She reached out to Connected Canadians, a non-profit in Ottawa that provides devices and support to seniors who need help. "We received nine devices for community members," said Jonsson. Soon kam had a new iPad with a stand. Wi-Fi access and a tech mentor who would come to her home. Now she's fully up to speed and looked comfortable in her "Zoom office" during a recent interview" (2022).

This technology support initiative was a grassroots effort to keep people connected.

Growing the ODLAN initiative alongside my dissertation research opened an avenue for knowledge sharing, critical thinking, and reflection. Through infographics, YouTube videos, and webinars the ODLAN team delivered a range of resources that educate organizational leaders on how to better serve rainbow seniors online. Disseminating this information across our networks amplified important messages during the pandemic about who was being excluded from online services in 2SLGBTQ+ communities. It provoked critical thinking about digital exclusion, which led to the growth of grassroots initiatives that directly addressed digital barriers. Undoubtedly, this experience has encouraged me to reflect on my own digital privilege along with how I can use that privilege to support others who are less technologically savvy.

Beyond ODLAN

Beyond ODLAN, several Canadian organizations are actively working to remove digital literacy and access barriers. I want to showcase these organizations to give readers concrete examples of services that can be utilized by community members to become digitally independent. This section will highlight two organizations that strive to address digital inequities and inequalities. While these initiatives are not queer-specific or rainbow senior specific, they are setting a standard for what digital inclusion should look like. The organizations I will highlight in this section are the Indigenous Friends Association and Cyber-Seniors.

According to their website, “The Indigenous Friends Association (IFA) is an Indigenous-led tech non-for-project organization that ignites the Spirit of Indigenous communities to create, engage, and renovate digital technologies through ethical and communal values” (Indigenous Friends Association par 1). They provide a range of services to Canadian Indigenous communities and allies. For example, the INDIGital program hosts a free five-week program for Indigenous youth and newcomers who are interested in learning digital literacy, healing, community, and empowerment. They offer two curriculum options to meet the diverse needs of their participants. These sessions are hosted on Zoom. This curriculum empowers students to embrace different forms of ICT along with opportunities to “explore their heritage, traditions, cultures, the issues surrounding Indigeneity, and how they can work with and contribute to their communities” (Indigenous Friends Association par 2). Through self-reflection and healing, students learn to identify and address the needs of the communities they work with. Approaching digital inequalities and inequities through a monolithic approach results in equity-deserving groups not receiving the proper support services. Using a person-centered approach that recognizes social differences and needs enriches the digital learning experience. Thus, the IFA’s approach to digital literacy and access is ingrained in Indigenous cultural beliefs and practices.

The IFA offers a platform that is designed with low connectivity areas in mind. Their platform I-ConnectedED is available to educators, facilitators, and teachers to create and share web-based learning materials with their students. Maintaining access to learning opportunities is important for supporting quality education experiences. I-ConnectED can “deliver educational content even when bandwidth is scarce, leveraging a decentralized web service. We’re turning the digital divide into digital dividends, making quality education accessible to all, one message at a

time (Indigenous Friends Association par 6).” Building a digital infrastructure that directly supports learning in Indigenous and rural communities will empower people to achieve their full potential.

Cyber-Seniors is a Canadian non-profit organization founded by the creators of the documentary film “Cyber-Seniors”. Their website states that they,

> provide senior citizens with tech training using an intergenerational, volunteer model. Young people are provided with lessons and learning activities to train them to act as digital mentors and senior citizens gain access to effective technology training and intergenerational communities that keep them socially connected and engaged (par 1).

Cyber-Seniors provides group sessions, one-on-one training, and educational resources to keep supporting older adults with using the Internet. On their YouTube channel, they have a variety of recorded videos specifically for 2SLGBTQ+ communities, ranging from online dating tutorials to tips for planning a 2SLGBTQ+ friendly vacation.

Tackling the digital divide is a collective effort. Service providers who host online programs and services must acknowledge the digital needs of the communities they serve. Identifying and addressing digital access barriers will support the development of strategies for making digital spaces safe, accessible, and inclusive of 2SLGBTQ+ communities and other marginalized groups. Queer organizations can learn a lot from technology-based non-profits about developing accessible virtual hubs.

Future Goals and Research

This project has opened up new possibilities to carry out research and advocacy work beyond academic spaces. Apart from my scholarly interests, my goals and research interests for the foreseeable future will be carried out through ODLAN. I want to continue exploring the complexities of being queer in the digital world along with how queer people find ways of creating

or locating online communities where they can be their whole selves. While the research I pursue through ODLAN may not explicitly focus on rainbow seniors, it will always take an intergenerational approach to include their voices. The possibilities of conducting research outside of academic institutions are evidenced in ODLAN's approach to developing, funding, and carrying out community-based research projects.

The federal and provincial government provides a range of funding opportunities for community-based research projects. The Canadian Heritage Department has a program called the "Digital Citizenship Contribution Program" (DCCP), which provides "time-limited financial assistance for research and citizen-focused activities. The program aims to support democracy and social inclusion in Canada by enhancing and/or supporting efforts to counter online disinformation and other online harms and threats" (Canadian Heritage par 1). In the summer 2022, I applied for this program to conduct a research project that would explore 2SLGBTQ+ professional experiences with online hate and harassment in Canada. The project was called "Possible Practices for Protecting Organizations from Queerphobic Online Hate." My experience working for Rainbow Faith and Freedom (RFF) made me curious about how outreach coordinators and social media managers mitigate incidents of cyber violence. I have spent countless hours reviewing and deleting hateful comments that were posted to the RFF social media pages. These experiences had me asking myself, how are other organizations addressing and preventing cyber-violence on their own platforms? I knew there was an immediate need to conduct research on this topic, which is why I applied for the DCCP grant.

The DCCP project was conducted in partnership with RFF and Wisdom2Action (W2A). W2A is a private queer-led consulting firm with a social enterprise commitment in Canada. Our

objective for this project was to gain insight into how 2SLGBTQ+ organizations address and mitigate incidences of online hate along with the steps they took to protect their staff, volunteers, and clients. Dr. Christopher Dietzel, who was a part of our research team, applied for ethics approval from York University. Using a collaborative approach, our research team conducted a literature review hosted six focus groups, and two roundtable discussions. W2A hosted the six focus groups that included 17 2SLGBTQ+ people across Canada who worked for non-profit organizations. Upon completing the data collection process, two roundtables were held on Zoom in English and French to share the findings with community members which allowed them to reflect and provide their feedback on our study. The final report, titled “The Internet Isn’t All Rainbows: Exposing and Mitigating Online Queerphobic Hate Against 2SLGBTQ+ Organizations", was completed in July 2023 and an event launch was hosted at Buddies in Bad Times Theatre on August 4, 2023, to share the research findings with community members, organizational leaders, and government officials. The DCCP project taught me the possibilities of conducting a collaborative community-based research project outside of academia. In the next paragraph, I will share how mobilizing my dissertation led me to new research opportunities that I could not have foreseen pre-pandemic.

My dissertation started as a small seed in the Fall of 2020 and quickly blossomed into a small tree with just three branches. These branches are a metaphor for my initial project ideas, which included research, resource sharing, and knowledge mobilization. The inception of ODLAN allowed me to water these ideas, which grew new branches that led to new ideas and opportunities. The DCCP project is an example of new branches that grew out of my initial research inquiries on queerness, aging, and technology because both my lived experience and literature review sprouted

new curiosities and questions about 2SLGBTQ+ people's experiences with ICT. Research on online hate, harassment, and disinformation was beyond the scope of my dissertation work, but alongside this research, I continued to complete projects that contributed to critiquing digital inequalities and inequities that hinder 2SLGBTQ+ people's access to and participating in the online world.

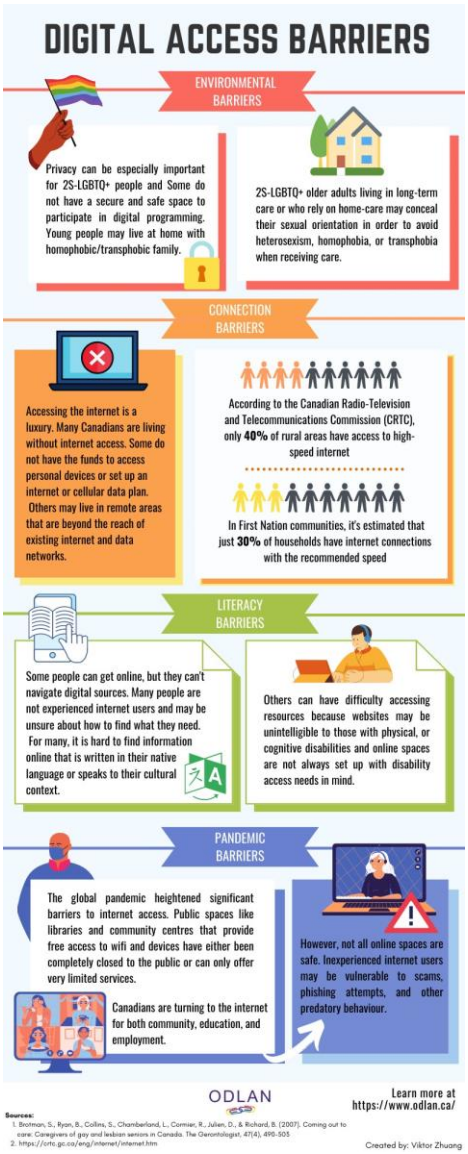
Conclusion:

The fear of failure followed me throughout this project. I was certain that achieving success was equated with completing the dissertation. However, this belief was a misconception, I learned that self-determination, self-assurance, perseverance, and collaboration are key components to success. Involving rainbow seniors in this process helped me see the significance of this research and how it could have a real positive impact on their lives. This I am forever grateful for. As I conclude my academic journey, I look forward to continuing my work to transforming research and practical approaches to tackling the digital divide. For those who engage with my work, I ask you to think about how you are making a difference in the lives of the communities who are subjects of your research? How can your research improve access to care networks or social services? How can you play the role of being both a researcher and an activist? Pondering these questions can spark ideas that evolve into action-based initiatives that can make a difference in the lives of equity-deserving communities in Canada.

APPENDICES

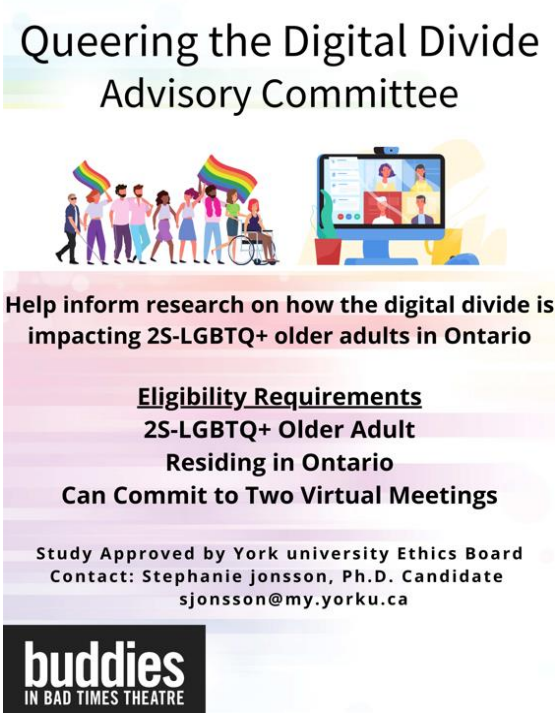
Appendix A

ODLAN Digital Access Barriers Infographic (2021)



Appendix B

QDD Advisory Committee Recruitment Poster



Appendix C

Ethics Approval Memo

YORK
UNIVERSITÉ
UNIVERSITY

OFFICE OF RESEARCH ETHICS (ORE)
309 York Lanes

4700 Keele St.
Toronto ON
Canada M3J 1P3
Tel 416 736 5914
Fax 416 736-5512
www.research.yorku.ca

Certificate #:	**STU 2021-101**
Approval Period:	**08/12/21-08/12/22**

ETHICS APPROVAL

To: **Stephanie Jonsson**
Graduate Student of Gender, Feminist & Women's Studies
sjonsson@my.yorku.ca

From: Alison M. Collins-Mrakas, Sr. Manager and Policy Advisor, Research Ethics
(on behalf of Veronika Jamnik, Chair, Human Participants Review Committee)

Date: Thursday, August 12, 2021

Title: **Queering the Digital Divide: An Examination of 2S-LGBTQ+ Older Adults Experiences with Remote Service Provisions during the Global Pandemic**

Risk Level: ☒ Minimal Risk ☐ More than Minimal Risk

Level of Review: ☒ Delegated Review ☐ Full Committee Review

I am writing to inform you that this research project, **"Queering the Digital Divide: An Examination of 2S-LGBTQ+ Older Adults Experiences with Remote Service Provisions during the Global Pandemic"** has received ethics review and approval by the Human Participants Review Sub-Committee, York University's Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines.

Note that approval is granted for one year. Ongoing research – research that extends beyond one year – must be renewed prior to the expiry date.

Any changes to the approved protocol must be reviewed and approved through the amendment process by submission of an amendment application to the HPRC prior to its implementation.

Any adverse or unanticipated events in the research should be reported to the Office of Research ethics (ore@yorku.ca) as soon as possible.

For further information on researcher responsibilities as it pertains to this approved research ethics protocol, please refer to the attached document, **"RESEARCH ETHICS: PROCEDURES to ENSURE ONGOING COMPLIANCE".**

Please note that prior to commencing any research activities, researchers are advised to review the latest updates on research involving human participants at:
https://www.yorku.ca/research/researchers-faqs/

Should you have any questions, please feel free to contact me at: 416-736-5914 or via email at: acollins@yorku.ca.

Yours sincerely,

Alison M. Collins-Mrakas M.Sc., LLM
Sr. Manager and Policy Advisor,
Office of Research Ethics

Appendix D

Queering the Digital Divide Consent Form and Needs Assessment and Survey

Needs Assessment
(Template)
Queering the Digital Divide

- *Question boxes will be included at the end of each response in section 2, 3, 4, and 5 to allow individuals to share their experiences with accessing and navigating digital spaces. Short answer responses are optional.*
- *The survey is a total of 33 questions and takes roughly 40 minutes to complete.*

Participation Consent Form

Graduate Researcher: Stephanie Jonsson, PhD Candidate in the School of Gender, Feminist, and Women Studies at York University. sjonsson@my.yorku.ca

Supervisor: Dr. Andrea O'Reilly, PhD, School of Gender, Feminist, and Women Studies at York University. Email: aoreilly@yorku.ca

Consent Form: *Participants will be prompted to fill out this consent form prior to completing the survey. Hard copies of this form will be sent to individuals who cannot complete the online version. If the consent form is incomplete, the participant's responses will not be viewed and will be destroyed.*

Purpose: The goal of this study is to gain insight into the barriers 2S-LGBTQ+ older adults experience when accessing online resources and social services. This study is specifically designed to understand:

(a) Environmental barriers
(b) Connectivity barriers
(c) Digital Literacy barriers
(d) Pandemic barriers
(e) Your thoughts and insights on how these barriers impact your ability to connect with the online world.

Procedures: To help me achieve my research goals, I invite you to participate in this study. First, participants will be asked inclusions criteria questions. If you meet the criteria, you will move onto the first section of the survey, environmental barriers. Next, you will be asked about connectivity barriers you experience. Then, questions will be asked about your digital literacy barriers. Lastly, questions on pandemic barriers will be focused on to better understand how the global pandemic changed your ability to access online spaces. Short-answer question boxes are built into the survey to allow individuals to elaborate on their answers. When completing these questions, please remove any identifiable information about yourself. The entire survey should take about 40-minutes.

OneDrive, which will be stored for a minimum of 4 years after the results are published. After this time period, the researcher will destroy their data records beyond recovery.

Questions or Concerns: If you have any questions or concerns please reach out to Stephanie Jonsson at sjonsson@my.yorku.ca. Inquiries will receive a reply within 48 hours.

I will add here that this research has been approved by the York University ethics board and I will include the ethics office contact information so participants can reach out if they have any questions or concerns regarding the ethics process.

Acknowledgement: Stephanie Jonsson, the primary researcher, is a PhD Candidate who is completing her dissertation at York University. The data collected in this research will be used in part to complete her dissertation requirements in the School of Gender, Feminist, and Women Studies.

Consent: By completing and submitting this survey, your informed consent is implied and indicates that you understand the above conditions of participation in this study.

Please save or print a copy of this form for your records.

Please choose one of the following to participate in this survey:

(a) Yes – I consent to participating in this study
(b) No – I do not consent to participating in this study

If you are participating in this study and want to opt into receiving the incentive, please provide your name and email below. This will only be used for the purpose of an E-Transfer and will not be used for research purposes. The incentive will be distributed two weeks after study completion. *Emails will only be used to distribute the incentive and will be removed from the researchers' database once the incentive is distributed.*

Name:

Email:

Section 1: Introductory Information (3 minute task)

1. What is your age range
    a. 50-55
    b. 55-60
    c. 60-65
    d. 65-70
    e. 70-75
    f. 75-80
    g. 80+
2. What is your household income?
    a. Below $15,000
    b. $15,000-$25,000
    c. $25,000-$35,000
    d. $35,000-45,000
    e. $45,000+
3. What region in Ontario where you currently located?
    a. Toronto
    b. York Region
    c. Durham Region
    d. Ottawa
    e. Peel Region
    f. Georgina
    g. Sudbury, Thunder bay
    h. North Bay
4. Where you born in Canada
    a. Yes
    b. No
    c. Prefer not to answer
5. How do you identify on the 2S-LGBTQ+ Spectrum?
    a. Two-Spirit
    b. Lesbian
    c. Gay
    d. Bisexual
    e. Trans
    f. Queer
    g. Non-gender conforming
    h. Gender Fluid
    i. Gender Mysterious

3. Do you live with a caregiver, family member, or roommate who is homophobic, transphobic and/or heterosexist?
    a. Yes
    b. No
    c. Prefer not to say
4. In the box below, please elaborate on any environmental barriers you may be experiencing. 150 words max

Section 3: Connectivity Barriers (5 minute task)

5. Do you require assistance to access the internet?
    a. Yes
    b. No
    c. Sometimes
    d. Prefer not to say
6. Do you have any physical impairment that impacts your ability to access online resources and services?
    a. Vision impairment
    b. Hearing impairment
    c. Limited mobility
    d. Other (please specify)_____
    e. Prefer not to say
7. Are you currently registered with an internet provider?
    a. Yes
    b. No
    c. Prefer not to say
8. Are you satisfied with your internet connection?
    a. Yes
    b. No
    c. Sometimes
    d. Prefer not to say
9. Do you have access to reliable high speed internet?
    a. Yes
    b. No
    c. Sometimes
    d. Prefer not to say
10. What kind of device do you use to connect to the internet? Please click all the device that apply.
    a. Tablet (Example: Ipad)
    b. Desktop
    c. Laptop

d. Phone
e. Other (please specify)_____

11. Is your device reliable when you are using the internet?
    a. Yes
    b. No
    c. Sometimes
12. Have you had to up-date your device to access software like Zoom?
    a. Yes
    b. No
13. In the box below, you can elaborate on your experiences with connectivity barriers. 150 words max

Section 4: Literacy Barriers (5 minute task)

14. How digitally literate do you consider yourself on a scale from 1-5?

Uneducated	1	2	3	4	5	Very educated

15. What do you use the internet for? Please click all that apply.
    a. Work
    b. School
    c. Online Training
    d. Social Programming
    e. Online shopping
    f. Current events
    g. Social media
    h. Other (please specify)_____
16. Who assists you with staying up-to-date on the latest technologies?
    a. Friends
    b. Family
    c. Social services
    d. Community Workshops
    e. Care-giver
    f. Other (please specify)_____
17. What social media platforms do you use?
    a. Facebook
    b. Instagram
    c. Twitter
    d. Snapchat
    e. Tiktok
    f. Other (please specify)_____
18. What platforms do you use to attend digital meetings or social gatherings?

a. Zoom
b. Google hangouts
c. Facebook Live
d. Other (please specify)_____
e. None

19. In the box below, please elaborate on any literacy barriers you may be experiencing. 150 words max

Section 5: Pandemic Barriers (3 minute task)

20. Have you experienced increased barriers to accessing the internet during the pandemic?
    a. Yes
    b. No
    c. Sometimes
21. Have you lost any sources of income since the pandemic began?
    a. Yes
    b. No
    c. Prefer not to say
22. Prior to the pandemic, did you rely on any public spaces to connect to the internet?
    a. Libraries
    b. Local Restaurants or Café's (like Tim Horton's or McDonalds)
    c. Community Centers
    d. University or College Campuses
    e. Communal spaces (like a community space in a group home)
    f. Other (Please Specify)_____
    g. Prefer not to say
23. In the box below, please elaborate on any pandemic barriers you may be experiencing. 150 words max

Concluding Question:

24. What services do you think organizations should offer to create more accessible online spaces? Please use the space below to answer this question.

Thank you for completing our survey.
We have compiled a list of resources to help individuals stay connected. We hope you find this list relevant and useful.
If you have any follow-up questions about the survey, please contact sjon1@yorku.ca

Appendix E

Queering the Digital Divide Call for Participants

Appendix F

Buddies in Bad Times Theatre: Letter of Support

buddies
IN BAD TIMES THEATRE
12 ALEXANDER STREET
TORONTO, ONTARIO
CANADA M4Y 1B4
BUDDIESINBADTIMES.COM

Dear York University Ethics Review Committee,

On behalf of Buddies in Bad Times Theatre, I am pleased to provide this letter of support for Stephanie Jonsson's research on the Queer Digital Divide: An Examination of 2S-LGBTQ+ Older Adults Experiences with Remote Service Provisions during the Global Pandemic. Stephanie approached Buddies Theatre in May 2021 to collaborate on a community needs assessment that examines how the digital divide is impacting 2S-LGBTQ+ older adults during the pandemic.

At Buddies in Bad Times Theatre, our youth-focused community programming has shifted over the last few years to a renewed focus on intergenerational conversations, including *The Youth/Elders Podcast*, and our monthly community dialogue series, *In Conversation*. For many in our queer folks, these points of connection with community can be a lifeline, a touchpoint for resources, and the start of new friendships. Since the beginning of the pandemic, much of our programming has moved online, which has opened us up to welcoming more community members into the space, but has also presented digital barriers to navigate, in particular with our 2SLGBTQ+ elders. We are excited to be supporting Stephanie's work to explore how to reduce barriers to participation and full engagement in digital offerings, and, importantly, how to carry these learnings forward beyond the pandemic.

We recognize the significance of conducting ethical research that involves human participants. Our role is to support this research project through outreach and funding resources. The data collected during the study will not be shared with Buddies Theatre and the original data sets will remain confidential. Once the research is completed and published, Buddies Theatre will have access to the final manuscript, where the data will be anonymized. We will use this information to help inform our programming and outreach, and will cite Stephanie and York University in any reports that uses this research.

In order to have the community involved in the development of this research study, Stephanie proposed the formation of an advisory committee, which consists of four 2SLGBTQ+ older adults who will meet to review the community needs assessment and offer their feedback on any questions that have not been considered in the report. We are happy to provide support in outreach with regards to call for participants, but will not be involved in choosing who participates in the advisory committee or research study. For privacy reasons, Buddies Theatre staff will not be attending any advisory committee meetings.

Kind Regards,

Appendix G

Original ODLAN Resource Portal (2021)

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