

Locked Up and Blocked Out:
The Digital Divide for Formerly Incarcerated Women in
Canada

By
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Author's declaration

This research study has been submitted in partial completion of the requirements of the Master of Professional Communication Program at Ryerson University. I declare that this research study is entirely my own work and that all sources used for the purposes of this research project are acknowledged and all quotations properly identified. This research study has been approved by the Ryerson University Research Ethics Board.

Student Name: Emma Reid

Signed:

A rectangular box containing a handwritten signature in black ink that reads "Emma Reid".

Abstract

In Canadian prisons and jails, populations are not able to access the internet, and many other essential technologies. Several research studies have examined the impact of the digital divide on incarcerated populations in the United States and other countries around the world (Barreiro-Gen & Novo-Corti, 2015; Reisdorf & Rikard, 2018). This study will expand on the current research by examining the impact of restrictions to internet access in Canadian prisons on the lives of formerly incarcerated women in Canada and, more specifically, how these restrictions affect their ability to reintegrate into society after the period of incarceration. The methodology of this research will be qualitative, and data will be collected through semi-structured interviews with individuals who have a variety of different experiences with the women's correctional system in Canada. This study will address major areas of research in the field of study that addresses the digital divide, including the learning and development of digital skills, and how different identities can intersect to impact the way individuals experience the digital divide. Through constant comparative content analysis, this study describes the experience of the digital divide, how it both persists and develops from the time of incarceration to life post-incarceration, and how it can compound other types of barriers faced by women who have been incarcerated in our country.

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Dedication

Incarceration of any length of time means wearing a label for the rest of your life, rebuilding a life while facing innumerable challenges, and carrying the weight of being a part of a highly stigmatized population. The many barriers that are associated with incarceration do not disappear when a sentence has been served. This research study is dedicated to every woman who has had to face life after incarceration.

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Introduction

In 2016, when the Annual Report of the Correctional Investigator of Canada was released, it described the level of access to technology in Canadian prisons and jails, where inmates are not able to access the internet, as well as other technologies that many people consider to be essential in their day-to-day lives (CBC, 2017). The report stated, “It is difficult to see how such information-deprived environments can be considered purposeful or rehabilitative” (Annual Report of the Office of the Correctional Investigator, 2015-2016). While one of the purposes of the correctional system in Canada is to help rehabilitate inmates so that they are able to reintegrate successfully into the outside world, they are denied access to many of the technologies upon which our society depends in the 21st century. This MRP explores the digital divide through the impact that restrictions to internet access in Canadian prisons and jails have on the experiences of formerly incarcerated women after they reenter society.

Research suggests that, in countries with similar restrictions to internet access within prisons, incarcerated and formerly incarcerated populations experience social isolation and exclusion as a result of barriers they face to developing digital skills (Barreiro-Gen & Novo-Corti, 2015; Reisdorf & Rikard, 2018). The method of research will be qualitative content analysis, and data has been collected through semi-structured interviews with individuals who have experience with the women’s correctional system in Canada. Throughout this research study, the terms “prison” and “jail” will be used to describe correctional facilities in Canada. Despite the fact that this research study will describe the experience of the digital divide for inmates who have served time in both prisons and jails, the terms are not interchangeable. Prisons in Canada are federal institutions where inmates serve sentences of longer than two years (Duckett & Mohr, 2015). Jails, on the other hand, are used to incarcerate individuals awaiting

trial or those sentenced for short terms and are operated at the provincial level (Duckett & Mohr, 2015). Throughout this study, the experience of the digital divide will be described in the context of both federal and provincial institutions in Canada.

The digital divide is commonly used to describe “the gap between those who do and those who do not have access to new forms of information technology” (van Dijk, 2006, p. 221-22). This definition is grounded in the idea that physical access is the most significant barrier to digital engagement. However, research on the digital divide has expanded beyond simply access to new technologies, and now covers a broad field of study relating to inequalities in access, usage, abilities, motivation, and engagement with technology (222-3). This research study will further develop this idea of the digital divide by looking at those who lost access to internet and communication technologies while incarcerated, and how this continues to affect them after they have reentered society. In this sense, the research will provide insight into a population that faces both barriers to access and barriers to engagement with digital technologies. Rather than prioritizing an objective evaluation of digital skills, this research will be grounded in the idea that the way people experience their own digital engagement, and understand the skill gaps that they experience, is a more meaningful way of understanding the digital divide.

This project will seek to provide a clearer understanding of the digital divide in terms of motivational access and engagement, in addition to physical access. The project will also seek to understand and explain how different types of inequalities can intersect to impact the digital divide by focusing on formerly incarcerated women. The purpose of the research project is to try to gain an understanding of how this specific population is affected by the digital divide, and how this affects their lives after incarceration. In order to accomplish these goals, the research will be guided by one overarching research question: *How does the digital divide manifest in the*

lives of formerly incarcerated women in Canada? To address this question, the research study will also be informed by two sub-questions that will examine different aspects of the digital divide. These questions are:

1. *How do formerly incarcerated women learn digital skills when they are reentering society?*
2. *How do restrictions on internet access in Canadian prisons and jails impact the experience of day-to-day life for formerly incarcerated women?*

Literature Review

Definitions of the digital divide

This research study will focus on three frameworks that evaluate the impact of the digital divide: the usage of internet and other digital technologies, barriers that this particular population faces in learning/adopting new technologies, and the major obstacles that formerly incarcerated women face in reentering society. Before describing how these frameworks emerged from the literature, it is necessary first to explain the various understandings of the digital divide that exist in the literature, as well as the context in which the term “digital divide” will be used in this research study.

There is a significant amount of research on the subject of the digital divide, and it has developed extensively over the past decade. Van Dijk (2006) provides a summary of major developments in research surrounding the digital divide in his paper. He writes that “The digital divide commonly refers to the gap between those who do and those who do not have access to new forms of internet technology” (2006, p. 221). He goes on to explain that more recent research on the digital divide has shifted to discussions of digital skills and capabilities, rather

than simply access (223). Van Dijk emphasizes this idea in his 2014 study, co-authored with van Deursen. In this study, they also ground van Dijk's claims in a more specific theoretical framework: the idea of usage as a measurement of the digital divide (2014, p.509). Van Dijk and van Deursen write "the usage gap is a broader thesis that potentially is more relevant for society with regard to differential uses and activities in all spheres of daily life, not just the perception and cognition of mass media" (509). Essentially, they make the argument that examining the digital divide in specific contexts through the usage patterns and frequencies of users can help us to understand where digital gaps exist in more meaningful ways than measuring subjective categories like individual knowledge of digital skills. The framework used to describe internet usage in this study is drawn from van Deursen and van Dijk's 2019 study. This study describes issues related to physical and material access to the internet, which can be overlooked by theories that prioritize engagement over access. This study provides meaningful and applicable definitions for material access and usage of internet and digital technologies (van Deursen & van Dijk, 2019). The framework for this research study also draws on Blank and Groselj's 2014 study, which operationalizes the definitions of amount and variety of usage of digital technologies.

In Reisdorf and Groselj's 2017 study, they look more specifically at digital inequalities, arguing that it is more meaningful to look at how people use the internet than it is to look at whether they can access the internet. This study prioritizes attitudes and behaviours as the motivating factors for digital engagement, rather than using physical access as the sole measurement for usage. Specifically, Reisdorf and Groselj discuss motivational access to internet technologies, making the argument that an individual's beliefs and thoughts are actually the first factor affecting adoption of internet technologies (2017, p. 1158). This claim may undermine

digital divide research focused exclusively on access, and also provides an alternate perspective to van Deursen and van Dijk's (2019) more rigid category of usage. Reisdorf and Groselj point to a claim made by Helsper in her 2011 policy brief, where she writes that "The exclusion of the most disadvantaged from full engagement with the opportunities available online seems to have become entrenched, partly due to a lack of confidence, which continues to hinder them even when they have managed to secure access and go online" (2011, p. 12). This is a major departure from the idea that the digital divide simply represents a binary opposition between those who can access the internet and new technologies, and those who cannot. Bredin's 2001 study expands on this idea, when she describes the digital divide for First Nations populations in Canada. In this study, she explains that the digital divide should be viewed, not through the presence of technologies within a community, but through their application. Through an analysis of the policies that affect the ability of First Nations communities to access technology, she claims that the motivation that a community has to use a new technology is an important lens that can be used to understand whether or not the community is actively engaged (2001, p.193). In this study, she describes First Nations communities' relationships with the federal government, and how their particular history makes them wary of engaging with government-implemented technologies (2001). This provides support for Reisdorf and Groselj's prioritization of thoughts and behaviours as a motivating factor for digital engagement (2017). This provides further context for van Dijk's claim that the field of research is moving towards an analysis of behaviour as the context for studying the digital divide.

The categorization of digital engagement

With the move away from access to motivation and behavior, researchers have begun to focus on how to define terms like “digital skills”, “usage”, and “digital literacy”. This has led to more studies that attempt to categorize the way that people use internet communication technologies. In 2005, van Dijk defines digital skills broadly, writing that they are the “set of skills that users need to operate computers and their networks, to search and select information, and the ability to use them for the fulfillment of one’s goals” (2005, p. 73). This introduces the important idea that digital skills do not just represent how an individual is able to use a computer, but also for what purpose they are able to use it. Helsper and Eynon extend van Dijk’s ideas in their 2013 study, which describes how certain types of digital skills relate to different kinds of digital engagement (697). They introduce the idea that there are different types of digital literacy depending on the content with which users are engaging (697). Furthermore, they also make the argument that more frequent use of the internet is connected to digital engagement, but not necessarily connected to digital skills (698). This represents another area of research relating to digital skills development: the role of habit in establishing and maintaining digital engagement.

The role of habit is explored in-depth in a 2011 study by Limayema and Cheung. In this study, they test the hypothesis that habit is central to the continued use of internet-based learning technologies (2011). Ultimately, they conclude that “the stronger the habit of using the Internet based learning technologies is, the weaker the relationship between intention and continued use is” (98), essentially arguing that habit influences usage because it makes people more likely to use internet learning-based technologies, even if they are not doing so with full intent. This is significant because it supports the argument that habit and usage are properties used to define digital engagement. For example, Blank and Groselj (2014) identify habit as a critical property in

analyzing and creating a nuanced definition of digital engagement (p. 418). Because habit incorporates elements of both access and motivation into its account of how individuals use technology, it should be understood as an important dimension of analysis in the developing field of research on the digital divide. Furthermore, definitions from both Limayema and Cheung (2011) and Blank and Groselj (2014) indicate that habit develops from comfort and familiarity with approaching new technologies. This suggests that, although habit does not necessarily inform the development of digital skills, it enables individuals to develop better relationships with technology.

Helsper and Eynon (2013) also make a practical contribution to the field of digital divide research in their categorization of different skills types, which has become central to the way that case studies of the digital divide are analyzed. Helsper and Eynon identify four primary types of digital skills: technical, critical, social, and engagement (2013, p. 702). Ultimately, they use these categories to assert that the field of digital divide research requires a “more nuanced understanding of skill” (708). In Blank and Groselj’s 2014 study, they take a different approach to creating categories for digital skills. Specifically, they argue that “existing typologies of the internet are inconsistent, overly rigid...” (2014, p. 418). Indeed, they allow for more categories of use for the internet: entertainment, commerce, information seeking, socializing, email, blogging, production, classic mass media, school and work, vice (430). Although their categories are very different from the kinds of categories that Helsper and Eynon create, they reflect Helsper and Eynon’s argument that a nuanced understanding of digital engagement requires an understanding of multiple properties, including “amount, variety, and type of internet use” (418). The categorization of digital skills has become increasingly common in studies of the digital divide, as a way of understanding which skills gaps exist among certain populations. For

example, in Reisdorf and Rikard's 2018 study about potential models of digital rehabilitation, they map digital skills onto a list that they entitle "digital rehabilitation constructs and operationalization" which explains, with reference to the resources that individuals accessed online and the purposes for which they were being accessed, under which "field" their engagement can be classified (2018, p. 1282). This form of classification is based on Helsper's "corresponding fields model", which suggests that "access, skills, and attitudes mediate the influence of offline social exclusion fields on digital exclusion fields" (2012, p. 41). Although these researchers differ in their categorization of digital skills and digital engagement, their arguments consistently solidify the idea that research on the digital divide requires application of meaningful definitions and categories to specific contexts.

Many of the above research studies describe the experience of the digital divide in terms of the types of digital skills that individuals should learn in order to engage in the digital world. However, there are certain studies that also examine the way people learn new digital skills, and the barriers that they may face in approaching new technologies. This type of framework has not typically been used to evaluate the digital divide, but it does share certain characteristics with research in the field of the digital divide. In a research study that used case study analysis to evaluate the success of tutor-facilitated adult digital literacy learning, Pendell, Withers, Castek & Reder (2013) identified four major types of obstacles that individuals face when they are learning how to use new technologies: personal factors, learning factors, pedagogical factors, and school factors. While this is different from the operationalization of skills that has come to characterize many of the evaluative frameworks of the digital divide, this type of framework does prioritize opinions, beliefs, and behaviours as critical elements of digital engagement, which are also central to the current literature on the digital divide (Reisdorf & Groselj, 2017).

Experience of different populations

Another critical theme in research surrounding the digital divide is the use of demographic characteristics such as race, gender, and socioeconomic standing to interpret and explain digital divides within populations. Van Dijk emphasizes that digital divide research focuses on describing particular groups rather than broad theories (2006, p.232). This is evident in case studies that address the digital divide; studies about formerly incarcerated populations have taken this approach to research, because it is a characteristic of this population that they have experienced restricted access to internet technologies. For example, Reisdorf and Rikard's (2018) study of digital rehabilitation provides insight into the experiences of individuals who have reentered into society after a period of incarceration, specifically through their engagement with new technologies. Similarly, Reisdorf and Jewkes (2016) examine digital inequality through interviews with incarcerated populations in their study.

There are several studies that deal with the emotional impact of the digital divide for incarcerated populations. In Barreiro-Gen and Novo-Corti's 2015 study, they discuss how restrictions to internet access affect incarcerated populations in Spain. Through surveys distributed to inmate populations in five prisons in Spain, they make the claim that not having necessary internet communication skills is a cause of social isolation (p. 1172). This is echoed in Reisdorf and Rikard's study about British and Irish prisons, as they explain more specifically that, when reentering society, individuals may struggle with reconnecting with family and social networks (2018, p. 1278). Reisdorf and Rikard differ from Barreiro-Gen and Novo-Corti in the weight they give to practical skills. While Barreiro-Gen and Novo-Corti describe the feeling of social isolation that prisoners face, Reisdorf and Rikard describe how these digital inequalities can manifest in the day-to-day lives of prisoners. For example, they describe the specific needs

that returning citizens have, such as finding access to services online, enrolling in educational programs, and finding information about healthcare (2018, p. 1274). Reisdorf and Jewkes (2016) also describe the gap in these practical skills in their study of British prisons, writing that “Digital skills – such as using computers, searching the internet for facts, sending emails, and more and more social networking – have become core skills to be competitive in the workforce” (p. 772). In general, the literature on this subject argues that this population struggles in their day-to-day lives because of the digital skills gap caused by their time in prison.

Although the above studies describe the emotional impact of the digital divide on incarcerated and formerly incarcerated populations, it is also possible to evaluate the day-to-day experience of the digital divide by examining how it can compound other barriers or obstacles faced by this group. In this context, it is useful to understand the typical barriers to reentry that are faced by formerly incarcerated individuals, since many of the practical barriers presented by the digital divide are consistent with the other types of barriers that individuals face when reentering society (Barreiro-Gen & Novo-Corti, 2015; Reisdorf and Jewke’s, 2016). O’Brien’s (2001) research study specifically examines the major elements to successful reentry for formerly incarcerated women: finding shelter, obtaining employment/legal income, reconstructing connections with others, developing community membership, and identifying consciousness and confidence in self. Ultimately, these elements to successful reentry can also be understood to represent major obstacles for vulnerable women who are trying to find a stable, safe path forward after reentry. Furthermore, as described in the previous studies on the digital divide, these are all obstacles which are vulnerable to disruption on the basis of the digital divide.

This type of analysis builds on an important idea, which is raised in Helsper’s 2011 policy brief. In the brief, she describes how the most disadvantaged groups in society experience

the digital divide (2011, p. 12). However, Helsper (2017) introduces a different dimension to this idea in her study on the social relativity of digital exclusion. In this study, she explains that a relative approach must be taken to understanding these populations, because social and temporal contexts for individuals are not static (2017). Essentially, she argues that it is actually very difficult to make broad generalizations about how different populations experience the digital divide, because individuals change their relationships to technologies so frequently based on a number of multifaceted and unpredictable factors such as their economic status, their community, or their career. In this context, it is important to acknowledge that different identities often intersect and influence digital inequalities in different ways, making it difficult to form conclusions about groups based on only one shared characteristic among a multitude of individuals.

Both the Reisdorf and Jewke's study and Reisdorf and Rikard's study used interviews to guide their research, although the former did not take audio recordings or notes during the interviews (2016; 2018). The O'Brien study also used interviews with formerly incarcerated women (2001), while the Barreiro-Gen and Novo-Corti study used surveys (2015). Although the studies included a wide variety of prison populations, the only study to focus on formerly incarcerated populations was the O'Brien study, which did not deal explicitly with the digital divide. Instead, the Reisdorf and Jewke's study (2016), as well as the Reisdorf and Rikard study (2018) and the Barreiro-Gen and Novo-Corti study (2015) all dealt with populations who were incarcerated at the time of the study (2016; 2015; 2018). At most, the Reisdorf and Rikard study dealt with prisoners who were in a "step-down facility" meaning that they worked outside of the prison and visited family on weekends, but they had a strict curfew and spent each night sleeping in the prison (2018, p. 1279). There is little data about how formerly incarcerated populations

have been affected by restrictions on internet access in prisons. Furthermore, there are no studies related to internet use during or after incarceration in Canada.

Overview of key themes

The themes across the literature on the digital divide fall into three main categories that will be explored in this research study: access and usage as measures of the digital divide, digital skills development and digital engagement, and an understanding of the digital divide through the experience of particular groups in society. These themes are used to inform the research questions for this study, which seek to understand the experience of the digital divide for women who have been incarcerated in Canada. This research study draws from research on the impact of the digital divide for incarcerated populations, while also expanding on this area of study by dealing with the period of time after incarceration, as well as the experience that is specific to Canadian institutions. Furthermore, this study focuses on the experience of women specifically, and is grounded in an intersectional and relative approach to understanding the digital divide. This study is also grounded in research about the importance of digital skills development for digital engagement. However, instead of focusing on an objective evaluation of skills, this study will emphasize the way that individuals who experience the digital divide feel about their own digital competence, building on the idea that motivations and behaviours are a critical factor in digital engagement (Blank & Groselj, 2014). Ultimately, the methods used in this research study will allow for an interdisciplinary, qualitative approach to some of the major questions in research on the digital divide. As such, this research study has one over-arching research question: *How does the digital divide manifest in the lives of formerly incarcerated women in Canada?* This question emphasizes the experiences of a particular group that faces barriers

related to access and engagement in society. This research question has been broken down into two sub-questions which address some of the major themes in this field of study:

1. *How do formerly incarcerated women learn digital skills when they are reentering society?*
2. *How do restrictions on internet access in Canadian prisons and jails impact the experience of day-to-day life for formerly incarcerated women?*

Question 1 fits into existing research on digital skills development, while question 2 examines the impact that the digital divide can have on the experiences of this particular group. The research questions for this study provide a broad overview of some of the critical areas of research in this field, while also building on research that already exists about the experiences of this specific population.

Methods

Overview of method

This study will employ semi-structured interviews as the method of data collection, and qualitative content analysis to draw conclusions about this data. The use of semi-structured interview questions helps to address the concern that the field of study surrounding the digital divide is lacking in qualitative and interdisciplinary research (van Dijk, 2006, p. 232). By centring the narratives of individuals who have experience or knowledge of the digital divide for incarcerated and formerly incarcerated populations, this research study will contribute rich qualitative data to this field of study. Semi-structured interview questions allow for a range of topics to be addressed, which will help to introduce a more interdisciplinary approach to the subject, while still grounding the research in theory surrounding the digital divide.

The research design of this MRP takes the form of semi-structured interviews that were conducted with four individuals who have knowledge of the women's correctional system in Ontario. The interviews are structured around two interview guides, which consist of several open-ended questions, along with prompts and follow-up questions. This structure is designed to elicit the opinions and experiences of individuals who have knowledge of various aspects of the correctional system.

Because there is very little research about the digital divide in Canadian prisons, this research project seeks to create a picture of the experience of the digital divide for formerly incarcerated women. Specifically, interview questions examine the knowledge gap as experienced by formerly incarcerated women when they reenter society, and how this affects the lives of women who may not be comfortable using the internet to find information, access services, or find employment, among other practical concerns. This research builds on similar studies that have been conducted amongst prison populations in other countries, including Spain, Britain and the United States (Barreiro-Gen & Novo-Corti, 2015; Reisdorf & Jewkes, 2016; Reisdorf & Rikard, 2018). While most of these studies focused on currently incarcerated populations (2015; 2018), this research project asks individuals about the experience of the digital divide during and after the period of incarceration.

The interview questions created for this project narrow the focus of research to certain uses of the internet, specifically the use of the internet for informational and educational purposes rather than for social engagement or entertainment purposes. For example, questions focus on individuals using the internet for activities such as finding employment, searching for information about government programs, finding necessary services such as housing,

healthcare, etc. That being said, because there is crossover of digital skills, the questions still allow for a greater understanding of a variety of technological burdens faced by this population.

This research study employs constant comparative content analysis (Glaser 1965), based in emergent coding and categories drawn from the literature. Based on the interview transcripts, the researcher used joint coding and analysis in order to determine what categories and themes could be drawn from the different interviews (1965). This allowed for the researcher to draw three main categories from participants' experiences. These three categories: usage of internet and other technologies, barriers to learning and adopting new technologies, and major obstacles to reentry after incarceration, were further coded based on definitions from the literature. This coding describes how formerly incarcerated women struggle with digital engagement on a day-to-day basis, how they develop new digital skills, and the impact that the digital divide has on their reentry into society.

Data Collection

Initially, the goal of this project was to understand the experiences of the digital divide for formerly incarcerated women through interviews. The researcher worked with a grassroots organization in Toronto that provides re-integration support to formerly incarcerated women to seek participants who would be interested in participating in the interviews. In advance of the recruitment phase of the study, the organization offered to distribute flyers to potential participants, and also offered to invite the researcher to digital skills workshops hosted by the organization to speak to potential participants about taking part in the study. This project was submitted to the REB in February 2019 and received approval in March 2019.

Once REB approval was received, the organization that had offered to connect the researcher to participants ceased contact. As a result of this, the researcher was unable to connect with participants through this organization. The researcher then expanded inclusion criteria for the study to allow for any women who had been incarcerated in a prison or jail in Ontario for more than one year, instead of only allowing for women who had accessed the services of this particular organization. These amendments were submitted to the REB in May 2019, and approval was received in May 2019. Following this approval, the researcher reached out to a number of different researchers who had worked with incarcerated populations in Toronto, as well as to organizations that work with formerly incarcerated populations in Toronto. Several of these individuals provided contact information for the researcher, but she was still unable to recruit an adequate number of participants for the study. The inclusion criteria were again expanded to include individuals who had a minimum of one year of professional experience working with formerly incarcerated women in Ontario. These amendments were submitted in May 2019, and approval was received in May 2019. With this inclusion criteria, the researcher connected with several of the contacts from the previous round of recruitment, and was able to recruit four participants for the research study.

Individuals were recruited for this research study by email. The researcher reached out to researchers who have worked with incarcerated and formerly incarcerated women, as well as organizations who work to support formerly incarcerated women in Ontario. The researcher's supervisor also made recommendations for researchers to reach out to, and the researcher searched the websites of organizations that provide reentry assistance to women in Ontario to find the contact information for individuals with experience working with formerly incarcerated women. Individuals that the researcher communicated with also helped to refer the

researcher to other potential participants through their own connections. No prior relationships existed between the researcher and any of the participants. In accordance with the REB approval for this project, the identity of participants will not be revealed in the results of the research study, because of their association with a highly stigmatized population. While names were collected from participants during the interview phase, participants will be referred to in this study by the letters identified in Table 1, below (i.e.: Participant A, Participant B, etc.). No other identifying demographic information was collected about participants, but all participants had experience, either professional or personal, with the women's correctional system in Ontario. Table 1, below, describes the relevant characteristics of each of the participants in the research study.

Table 1			
<i>Description of research study participants</i>			
<u>Participant A</u>	<u>Participant B</u>	<u>Participant C</u>	<u>Participant D</u>
Woman who spent more than two years incarcerated in a provincial jail in Ontario, and now lives in a community residential facility (CRF) in Ontario.	Criminology professor who has spent more than ten years doing research on prisons and jails in Ontario. Also has experience working in a non-profit capacity doing in-reach work in women's prisons and jails.	Community residential facility (CRF) manager for women's facility in Ontario for past year. Previously worked as a community liaison worker for a co-ed remand facility in Ontario.	Caseworker who has worked for eight years to help women carry out correctional plans after their release, as well as doing in-reach work at women's prisons and jails in Ontario.

Interviews ranged from forty minutes to fifty minutes in length. All of the interviews were conducted over the phone and recorded using an app with permission from participants, and

transcripts were created manually from the interviews for the purposes of data analysis. All participants signed consent forms or provided oral consent that indicated their knowledge and understanding of how their information would be used, as well as all possible risks associated with participation in the study. All participants also explicitly consented to being recorded with an audio recording device.

Two sets of interview questions were created: one for Participant A, who had personal experience with the correctional system in Ontario (Appendix A), and one for the other three participants, who had professional experience with the correctional system in Ontario (Appendix B). The interview questions for Participant A were open-ended and asked the participant to reflect on her time in jail, as well as her experiences using digital technologies upon her reentry to society. There were eight questions, and the interview guide also included prompts that encouraged the participant to expand on her opinions and experiences. Below are two examples of questions from the interview guide for Participant A:

1. What was your experience like using internet technologies or learning new technologies when you were released?

(Probe: how did you feel when using these technologies, how were you able to learn new technologies, specific instances with new technologies, etc.)

2. How do you learn new technologies at this point in your life?

(Probe: do you have people that help you, do you take classes, do you feel comfortable learning on your own?)

The interview guide for the other three participants included seven questions, as well as prompts and follow-up questions (Appendix B). These questions were designed for participants to reflect on how they had witnessed formerly incarcerated women use technology after their

period of incarceration. Below are two examples of questions from the interview guide for the remaining three participants:

1. How do formerly incarcerated women learn to use the internet or new technologies after they have been released?

(Probes: what kind of services/resources are most helpful)

2. How do restrictions to internet access and other technologies continue to affect women after they have re-integrated?

(Probes: obstacles in day-to-day-life, length of adjustment period, etc.)

Data Analysis

The method of analysis employed in this research study is constant comparative content analysis grounded in categories that emerged from the literature and emergent from the interviews (Glaser 1965). Specifically, constant comparative content analysis allowed for the research to be grounded in the theory and literature of the digital divide, while also providing the opportunity for new ideas to emerge from the interviews (1965). This approach ensured that new ideas could be developed to address the research question, meaning that the research questions would be addressed by the content of the interviews. However, by using categories that were developed from the literature, the theory and data were closely intertwined, ensuring that the experiences of the participants were supported by perspectives from the literature.

After interviews were conducted, the audio recordings were transcribed, and the researcher took notes on themes that were consistent across the interviews. Through this process, the interviewer was able to identify the codes that emerged through analysis of the transcripts. Through manual coding, three categories were identified, each based on the literature and in response to themes that emerged to address the research question. Codes were then developed within each of these categories, through analysis of the transcripts and reference to the literature.

The first category identified was *Usage of internet and other technologies*. This category was used to identify participant responses that addressed how formerly incarcerated women access and engage with the internet and other technologies. The second category identified was *Barriers to learning and adopting new technologies*, which addresses the different types of obstacles that formerly incarcerated women face when they are trying to develop digital skills. The third category that emerged from the coding of the interviews, *Major obstacles to reentry after incarceration*, describes how technology affects the day-to-day experiences of women who are re-integrating into society. These categories, in addition to the codes that were used to analyze participants' responses, are described in greater detail in the following section.

Usage of internet and other technologies.

The first category that emerged from the coding of the interview transcripts was participants' discussions of usage of internet and other technologies. The codes that emerged to create this category are drawn from van Deursen and van Dijk (2019), as well as Blank and Groselj (2014). Table 2, below, outlines the definitions of each of these codes, as well as examples drawn from the interview transcripts.

Table 2			
<i>Usage of internet and other technologies</i>			
<u>Code</u>	<u>Definition</u>	<u>Example from the interview</u>	<u>Rationale for example</u>
Access	"the means required to maintain the use of the Internet over time, such as computer devices (e.g. desktops, tablets, Smart TVs), software (subscriptions), and	"We can ask the staff here for, you know, directions on how to go, you know, to a bus stop where we want to go. They'll print us off maps and stuff like that. We can't actually sit down and use the computer."	Participant is discussing the barriers to access to the internet in the halfway house where she is residing.

Use of different devices	peripheral equipment (e.g. printers, additional hard drives).” (van Deursen and van Dijk, 2019, p. 355) “number of devices and total number of peripherals used.” (van Deursen and van Dijk, 2019, p. 355)	“Same with, like, the new, like the iPhones and stuff, and everything’s touchscreen and we don’t have flip phones anymore - they’re still available but not as common as other phones, stuff like that, they’re just sometimes really surprised to see that that’s something that’s so regularly available to everybody in common.”	Participant is discussing the changes in technology, with specific reference to new devices with which women are sometimes unfamiliar when they are reentering society.
Engagement in different activities	“a series of nominal variables describing different activities people engage in online. Activities include anything from sending emails to investing in stock to making travel reservations to gambling” (Blank & Groselj, 2014, p.419)	“A lot of banking online, a lot of google searches, definitely emails. And, I think that’s pretty much it. And just your regular social media which was Facebook. That’s the only thing I used was Facebook. Like, and I still today, I check my emails every day and I check my online banking and stuff like that.”	Participant is describing how she used the internet before her incarceration, and how she uses it now post-incarceration.

The findings from this layer of coding are summarized in Table 3, below. This table indicates whether each of the participants addressed each of the codes under the category of *Usage of internet and other technologies* during their interview.

Table 3				
<i>Participant responses about usage</i>				
<u>Code</u>	<u>Participant A</u>	<u>Participant B</u>	<u>Participant C</u>	<u>Participant D</u>
Access	X	X	X	X
Use of different devices	X		X	X
Engagement in different activities	X	X	X	X

In terms of access, participants discussed issues related to affordable access to internet after incarceration, the failures of the correctional system in providing women with training and educational resources, the impact of parole restrictions on access to the internet, and the ongoing barriers that many women face in accessing the internet after their release. In addressing the usage of different devices, participants described technologies that women used before and after their period of incarceration, and the difficulties that many women face in using new technologies after their release. When describing engagement in different activities, the participants described technologies used for entertainment purposes, as well as technologies that formerly incarcerated women should learn in order to find employment.

Barriers to learning/adopting new technologies.

The second category to emerge from the analysis of the interviews was the description of barriers to learning and adopting new technologies. The codes that fall under this category are based on the four barriers to adult digital literacy acquisition outlined in a 2013 research study that used a case study analysis to evaluate the success of tutor-facilitated adult digital literacy learning (Pendell, Withers, Castek & Reder). Each of the definitions for the codes was drawn

from the same case study. Table 4, below, outlines the definitions of each of these codes, as well as examples drawn from the interview transcripts.

Table 4			
<i>Barriers to learning/adopting new technologies</i>			
<u>Code</u>	<u>Definition</u>	<u>Example from interview</u>	<u>Rationale for example</u>
Personal factors	“lack of confidence, fear of computers and information technologies” (Pendell, Withers, Castek & Reder, 2013, p.109)	“I even think that seriously, there is that very real fear of not being able to catch up, learn, understand, feeling overwhelmed.”	Participant is describing some of the personal insecurities that formerly incarcerated women struggle with when approaching new technologies.
Learning factors	“existing learning habits” (Pendell, Withers, Castek & Reder, 2013, p.109)	“We do have many women who come out - who are incarcerated and have literacy and reading and writing issues”	Participant is explaining how literacy issues can make it harder for formerly incarcerated women to become digitally engaged.
Pedagogical factors	“inadequate training, lack of collaborative culture” (Pendell, Withers, Castek & Reder, 2013, p.109)	“We don’t have, unfortunately, any, like, in-house support or anything like that, that’s specialized. We do have staff available onsite 24/7 and they’re available to answer any questions or sit down with them or whatnot. But in terms of, like, an actual workshop to develop that skill, we don’t have that in-house.”	Participant is explaining the constraints that her organization faces in providing training for women on digital skills.
School/institutional factors	“technical and space problems, quality of infrastructure” (Pendell, Withers, Castek & Reder, 2013, p.109)	“But we were trying to see if we could actually figure out, because I have a laptop here too, my laptop that I’ve had for years, but I can’t access it here because we don’t have WiFi. So we actually asked the staff - is it possible that we can all	Participant is explaining the barriers that women in her halfway house faced when trying to secure WiFi for their living space.

pitch in, because we get an allowance every week - can we pitch in for, you know, whoever wants access to the internet. And they were like, they were gonna bring it up at you know, one of their house meetings that they have all the staff meeting at, and it's never been revealed on...they've just come back with the answer's no, but never said why, really."

The findings from this layer of coding are summarized in Table 4, below. This table indicates whether each of the participants addressed each of the codes under the category of *Barriers to learning/adopting new technologies* during their interview.

Table 5				
<i>Participant responses about barriers to learning</i>				
<u>Code</u>	<u>Participant A</u>	<u>Participant B</u>	<u>Participant C</u>	<u>Participant D</u>
Personal factors		X	X	X
Learning factors	X		X	
Pedagogical factors	X		X	
School/institutional factors	X	X		

For this layer of coding, participants described different types of barriers that formerly incarcerated women faced in learning new technologies after incarceration. The most commonly discussed was "personal factors"; participants frequently referred to the confidence gap often faced by formerly incarcerated women. They also described other factors that were barriers to learning new technologies, such as the unwillingness of staff to help them learn in residential facilities, issues accessing WiFi and other necessary technologies, and the learning curve that women face after having lost access to the internet during the period of incarceration.

Major obstacles to reentry after incarceration.

The third category that guided coding of the interviews was the major obstacles that women face to reentry to society after incarceration. Specifically, this category was coded in order to demonstrate how these obstacles can be compounded by the digital divide. These codes are based on theory that addresses practical changes that can help women transition back into the community, post-incarceration (O'Brien, 2001). The factors that O'Brien identified as being *ingredients* to successful reintegration were consistent with interviewees' descriptions of the major obstacles that formerly incarcerated women face when they are reentering society (2001). The definitions of these codes were created through emergent coding with reference to the responses of participants. Table 5, below, outlines the definitions of each of these codes, as well as examples drawn from the interview transcripts.

Table 6			
<i>Major obstacles to reentry after incarceration</i>			
<u>Code</u>	<u>Definition</u>	<u>Example from interview</u>	<u>Rationale for example</u>
Housing/shelter	Securing a safe, stable, and affordable place to live after incarceration	"I guess if they didn't have the skillset to use the computers then they might not have the access to available units than someone who might be more well-versed with the computer and the internet and it might feel like, just because so much of our lives and opportunities and promotions and advertisements is online, I think there's that feeling of disconnect like they don't know how to use the computer then they're not able to reach the audience maybe they want to reach, or, connect with."	Participant is describing how the search for housing is complicated for formerly incarcerated women when they don't have the necessary skills to use a computer.
Employment/legal income	Finding a legal,	"Most of the employment opportunities right now are online	Participant is explaining how

	permanent, stable source of income after incarceration	application, right? So, something that we take for granted, filling out a simple job application, is usually online. Gone are the days where you can walk into a store and put down your resume and attach that to an application. It's not completely obsolete, but it's on the way to becoming obsolete. So there are certain barriers that are set up in place and when you're coming out and you don't have that skill set, it is going to cause frustration, it is going to cause a feeling of disempowerment, it is going to cause feelings of hopelessness and, you know, isolation, and that is something that affects people when they're coming out absolutely."	individuals must have a working knowledge of computers in order to apply for many jobs, which can create a barrier for women who do not have that skillset.
Reconstructing connections with others	Re-building relationships with family or friends after incarceration	"I think sometimes the women might feel disconnected if they're here and their family isn't, or, [city] is not home for them, then they may feel a bit more disconnected than some of the other women who have a cell phone or know how to use the internet and email and whatnot. They may feel more connected and supported by their circle."	Participant is explaining how women who do not have access to cell phones, or who do not have the required skillset to use the internet, feel disconnected when they are living in transitional housing that is not close to their family.
Developing community membership	Finding stability and safety in a community – either online or offline – after incarceration	<p>"...I just changed my name and restarted a new Facebook, and just have only family on there. That's all I have.</p> <p>I: Okay. So you don't have a very wide circle that you -</p> <p>P: No. No.</p> <p>I: - keep in contact with?</p>	Participant is describing concerns she had after she left jail about making her identity public in online communities where she had previously been active.

Identifying consciousness and confidence in self	Developing the necessary skills to confidently face personal challenges and obstacles after incarceration	<p>P: No and I don't follow any other people that are on there. Or different sites and stuff like that. I don't follow that.</p> <p>I: Okay. Is that something that made you nervous when you were coming out?</p> <p>P: Yeah, yeah. It made me really nervous. Because I didn't want anybody to know where I was, right? Other than my close family.”</p> <p>“I think the - maybe for some women who have spent a huge chunk of their life in prison and then they're overwhelmed by everything, because everything feels new: the transit system, technology, maybe it's a new city...just different maybe social norms, just everything has changed for them. So I think that can be overwhelming and at times you know, we've heard the women who say they're really overwhelmed and if there's a crisis they say “I want to go back” because in that moment they're feeling overwhelmed”</p>	Participant is describing how women who have left prison or jail can feel overwhelmed by all of the changes around them, which causes them to question their ability to function in society.
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The findings from this layer of coding are summarized in Table 6, below. This table indicates whether each of the participants addressed each of the codes under the category of *Major obstacles to reentry after incarceration* during their interview.

Table 7				
<i>Participant responses about obstacles to reentry</i>				
<u>Code</u>	<u>Participant A</u>	<u>Participant B</u>	<u>Participant C</u>	<u>Participant D</u>
Housing/shelter		X	X	X
Employment/legal income	X	X	X	X
Reconstructing connections with others		X	X	X
Developing community memberships	X	X	X	X
Identifying consciousness/confidence in self	X	X	X	X

This layer of coding refers to participants' discussions of the ways that the digital divide affects other barriers that formerly incarcerated women may face. Housing and shelter and employment/legal income were consistently described as some of the most significant obstacles to reentry by most of the participants. Participants explained how these obstacles are worsened by barriers to access to technology, as well as the skills to engage with it. In these conversations, participants primarily discussed how technology contributes to the practical obstacles associated with reentry. In their answers that addressed reconstructing connections with others, developing community memberships, and identifying consciousness/confidence in self, they discussed internal struggles that women may face, and how these can be exacerbated by the social isolation of the digital divide, as well as the stigma of not understanding how to use certain technologies.

Discussion

This section will discuss the research questions from this study, as they are addressed by the findings from the interviews. Two main themes emerged from the analysis of the interviews: access to technology and comfort and engagement with new technologies. Both of these themes will be addressed throughout this section, as they both provide insights which address the overarching research question, as well as the two sub-questions for this study. This section will be organized by research question, with the two sub-questions addressed individually, followed by a synthesis of the overall insights from this study to respond to the overarching research question.

Sub-question 1

The first sub-question asked in this study was: *How do formerly incarcerated women learn digital skills when they are reentering society?* The theme of comfort and engagement with new technologies emerged from participants' discussions of how formerly incarcerated women develop digital skills after their period of incarceration. Participants' responses to questions about digital skills development suggest that, when approaching new technologies, formerly incarcerated women can feel overwhelmed and uncomfortable learning new skills, but this is dependent on their relationship to technology prior to their incarceration, as well as the length of time they were incarcerated. This supports literature on the subject, which suggests that a relative approach must be taken to understanding how different populations use the internet, because there are many overlapping characteristics that can change the way individuals engage digitally over time (Helsper, 2017). Participants in this research study described some of the specific characteristics that can affect the way that formerly incarcerated women feel about approaching

new technologies. For example, Participant A, who was incarcerated in the provincial system for a shorter sentence, described how she was more comfortable learning and using new technologies than other women who had served longer sentences. Participant C, who worked in a community residential facility that served formerly incarcerated women, made a similar observation in her interview when she stated the following:

“...if they haven’t had the exposure to the computer or the internet before they’re kind of intimidated by it, or overwhelmed” (Participant C – CRF manager).

This can be compared to anecdotes from other research studies, in which exposure to new technology after incarceration caused individuals to become overwhelmed, affecting their ability to become comfortable and familiar with new technologies (Reisdorf & Rikard, 2018). The responses of participants suggest that, while there are many factors that influence the way that individuals learn digital skills, the digital divide caused by incarceration can make people even less comfortable learning new technologies.

Although participants described many of the challenges women faced when using new technologies after incarceration, they also described environments in which women were able to successfully learn new technologies. In this context, their responses support the idea that it is important to create a comfortable environment to encourage digital engagement. Their answers also suggested that digital engagement is something that is developed more effectively as a community, rather than individually. This can also be understood in the context of Pendell, Withers, Castek & Reder’s (2013) study, which suggests that a collaborative culture in which peers learn from each other can be a more successful strategy for enabling digital newcomers to become comfortable with new technologies. In response to a question about how she helps other women in her CRF learn new technologies, Participant A stated:

“I do, absolutely. There’s one lady that’s been here for about five months. She doesn’t understand a smartphone because she was in for eighteen years. So I helped her set up her smartphone and got her onto, you know, so she has online banking so she understands that...and she’s understanding...she’s got Netflix, so, I did get her onto Netflix. It’s hard for her...She still sometimes doesn’t understand her phone. She sometimes - a lot of times will, instead of deleting her phone calls she’ll delete her actual contacts [laughs]. So, there’s been, I think three times in the last five months I’ve had to put in all her contacts in her phone and I help anyways so I don’t mind doing stuff like that. Yeah, but, I’m finding that any of the girls that have been in for a long time definitely need a lot more help.” (Participant A – formerly incarcerated woman).

Her response suggests that finding ways to make digital newcomers comfortable and helping them to develop the habit of using particular technologies, can significantly expedite the process of learning and adopting new technologies. This is supported by Brank and Groselj’s discussion of habit as a critical property in analyzing and creating a nuanced definition of digital engagement (2014, p. 418). Essentially, as Participant A’s anecdote suggests, women can become more comfortable approaching new technologies when they are surrounded by other people who are doing the same. In combination with Pendell, Withers, Castek & Reder’s study, this provides the insight that habit can be developed collaboratively. This is further supported by participants’ descriptions of “personal factors”, such as confidence and comfort, as barriers to learning new technologies. While literature on developing digital skills tends to deal more explicitly with categories of digital skills as a measure of digital engagement (Van Dijk, 2006), the responses from participants in this research study suggest that, before digital skills development can even be measured, it may be necessary first to understand why particular individuals are uncomfortable approaching new technologies.

The theme of access also emerged in participants’ discussions of the development of digital skills. Although participants primarily described issues of access after incarceration, another idea that emerged during interviews was the role of access during incarceration, and the steep

learning curve that women face after they have been released. Participant D described how this can impact formerly incarcerated women in the following statement:

“There’s a huge lag time in them coming out and learning how to develop a resume and...online applications for jobs are huge now. They talk about how, like, there would be more options to set up for themselves when they’re released if they had access to, you know, online schooling or to contact, you know, old employers or potential employers or housing or, even to be able to communicate with their family while they’re inside” (Participant D - caseworker).

In this sense, although the period of time in which they cannot access the internet may be limited to their period of incarceration, the women described by this participant continue to feel the impact of this disconnect when they are learning skills after their reentry. This idea can be understood in contrast to Reisdorf and Groselj’s (2017) claim that it is more useful to look at how people use the internet than it is to look at whether they have access to the internet. While the general population is gaining more consistent access to the internet, the findings of this study suggest that access is not consistent across all populations, and still presents a major obstacle to digital skills development for many marginalized populations.

Sub-question 2

The second research question asked in this study was *How do restrictions on internet access in Canadian prisons and jails impact the experience of day-to-day life for formerly incarcerated women?* As described in the methods section of this paper, three codes emerged through analysis of the interviews to describe how the digital divide manifests in the day-to-day lives of formerly incarcerated women. Of the three codes that were identified and defined through reference to the literature, the most prevalent throughout all of the interviews was access. This is significant because it diverges from the direction of the literature on the digital divide, which has moved towards an examination of usage and skills over formal access to communication technologies

(Van Dijk, 2006, p.221). Participant A, who at the time of the interview was residing in a community residential facility, described the barriers to reentry that she and other women in the facility experienced as a result of issues related to access, stating that:

“we don’t have access to the internet or an actual computer that we can search through, job searching, or resume building, or even looking up substance abuse. You know, information on even AA meetings” (Participant A – formerly incarcerated woman).

This response suggests that access continues to represent a significant barrier to digital engagement for formerly incarcerated women. Furthermore, by describing the many different aspects of their lives that are impacted by issues related to access, Participant A’s response indicates that the digital divide manifests in the day-to-day lives of formerly incarcerated women in a number of different ways and can compound the other disadvantages that they face. This provides support for the idea that the digital divide should be studied in the context of specific communities, at particular moments in time, because relationships to technology change depending on a number of different and intersecting characteristics (Bredin, 2001, p. 206). This theme emerged during participants’ discussions of the various barriers that they face to reintegration. For example, Participant C described how women can feel isolated after incarceration if they do not have regular access to a reliable internet connection, because they may be residing in a CRF that is far from friends and family. She stated the following:

“I think sometimes the women might feel disconnected if they’re here and their family isn’t, or, [city/town] is not home for them, then they may feel a bit more disconnected than some of the other women who have a cell phone or know how to use the internet and email and whatnot” (Participant C – CRF manager).

This response supports examples from the literature which suggest that the digital divide can be a cause of social isolation (Barreiro-Gen and Novo-Corti, 2015, p. 1172), and also that experiencing the digital divide during incarceration can make it more difficult for individuals to

re-establish connections upon reentry (Reisdorf & Rikard, 2018, p.1278). The responses from participants A and C suggest that issues of access after incarceration affect women's day-to-day lives in terms of both practical concerns, as well as through the compounding of broader social issues faced by their community.

In addition to the issue of access, participants also described some of the ways in which discomfort with technology can manifest in the day-to-day lives of formerly incarcerated women. For example, Participant A explained her own concerns using social media after her incarceration. She explained that she had created a new social media account with a new name, stating:

"It made me really nervous. Because I didn't want anybody to know where I was, right? Other than my close family." (Participant A – formerly incarcerated woman).

This concern was echoed by Participant B, who outlined her own concerns for women using social media after periods of incarceration:

"I worry about women getting triggered, who are - might potentially enter into the "world of social media" and not have a strong support system in terms of maybe their emotional level, like of vulnerability, because you are vulnerable when you come out, right? So I do worry about having kind of this open access to social media without a support system being in place" (Participant B - researcher).

Because the majority of the literature on the digital divide as it relates to incarceration focuses on currently incarcerated populations, there is not a significant discussion of how formerly incarcerated women experience social media platforms after their incarceration. However, this finding is consistent with the broader thesis in the literature on the digital divide, which suggests that it can cause, or compound, social isolation for disadvantaged groups (Reisdorf & Rikard, 2017). It also indicates that, in some cases, the unwillingness of formerly incarcerated women to become actively engaged online has less to do with their ability to use these platforms than it

does with the compounding effect of the stigma that they face both online and offline. This emphasizes the value of an individual's motivation for engaging on digital platforms, but it also indicates that motivation is influenced by personal characteristics that extend beyond the practical barriers of digital isolation.

Overarching research question

The overarching research question outlined for this study was: *How does the digital divide manifest in the lives of formerly incarcerated women in Canada?* The themes that emerged from this research study indicate that the digital divide persists after the period of incarceration and impacts the lives of formerly incarcerated women in ways that compound many of the other barriers that they face. Furthermore, the digital divide specifically acts on many of the existing barriers faced by women who have been incarcerated. As a result of this, the digital divide is a major impediment to successful reentry.

The themes related to digital skills development and access also overlap in ways that can uniquely affect populations that face compounding barriers. For example, in her interview, Participant A described the process of applying for the Ontario Disability Support Program (ODSP) after her release. She outlined her experience with the application process in the following statement:

"It was a little hectic because I had to get all the paperwork printed off at the library. But actually, once I got that, then what I did first was I did an intake online first, or over the phone. And then printed the paperwork off, and then I had to take, it's kind of a process. You have to go to take your paperwork to your doctor, so I had that all done in December, and it takes three months for it to get, whether you're approved or not, from the date that your doctor actually hands the paperwork into them. So, if the doctor, my doctor was pretty good at making sure she filled out everything on time, didn't delay anything... I got most of my information from my friend, she's on ODSP.... so, she helped me with all that paperwork." (Participant A – formerly incarcerated woman)

This illustrates a key finding from the research, which also supports an important theme from the literature on the digital divide. Participant A was able to use the necessary technology to access the documents that she needed, and to communicate with friends and professionals who supported her through the process. However, it was only because of an existing support network that she was able to access the necessary services. This anecdote provides support for the idea that there are multiple overlapping factors that affect how individuals are affected by the digital divide (Helsper 2017).

In this particular circumstance, both the themes of this study represent overlapping factors in Participant A's ability to perform necessary tasks that affected her day-to-day life. While she had the necessary support throughout the application process, as well as the skills to complete it, individuals who faced other barriers that are common upon reentry may have struggled to receive the same services. Furthermore, this also suggests that it was her individual circumstances, rather than the systems in place, which allowed her to receive the support that she needed. This helps to sustain the claim that the digital divide must be studied from an intersectional lens and must take a relative approach to its understanding of how specific populations are impacted (Helsper 2017). Ultimately, this addresses the research question because it indicates that the impact of the digital divide on formerly incarcerated women is dependent on the way that other types of obstacles and barriers factor into their day-to-day lives. The digital divide, in this sense, is a compounding barrier for many women.

Participants' discussions of the major obstacles to reentry illustrated specifically how the digital divide can amplify some of the most significant barriers that they face in re-building their lives after incarceration. These obstacles play out in terms of both access to and comfort with technology and can also impact one another. For example, Participant C described the experience

that certain women in her CRF have had while trying to apply for jobs after the period of incarceration. She stated:

“A lot of jobs will say “apply online only” or “submit your resume here” like there’s no option to deliver it in person, so I think sometimes that can also be intimidating because they feel like, “I want to apply to the job but I don’t know how to. I don’t have an email” or “I don’t have access to a computer” or “I only have my resume that’s handwritten or typed, like on a typewriter so I don’t know if I want to apply to it” sort of situation, which creates, again, a bit of a barrier towards seeking employment.” (Participant C – CRF Manager)

While this clearly describes the way that the digital divide can make it more difficult for formerly incarcerated women to access employment in a practical sense, it also illustrates how this can contribute to issues of self-esteem associated with the overall stigma of the label of incarceration. This supports the claim in the literature that there is a lack of comfort and familiarity with technology without the existence of habit (Blank & Groselj 2014) but is also indicates that the experience of the digital divide can be a deeply personal struggle. The social isolation experienced as a result of the gaps in access, and the fear of engaging with new technologies, means that this population may be impacted in ways that even affect how they view themselves. This idea was also supported by Participant C when she explained how the overwhelming experience of reentry can affect women:

“for some women who have spent a huge chunk of their life in prison and then they’re overwhelmed by everything, because everything feels new: the transit system, technology, maybe it’s a new city...just different maybe social norms, just everything has changed for them. So, I think that can be overwhelming and at times you know, we’ve heard the women who say they’re really overwhelmed and if there’s a crisis they say “I want to go back” because in that moment they’re feeling overwhelmed.” (Participant C – CRF Manager)

This idea is clearly reflected in the literature when Reisdorf and Rikard write that “the use of technologies on the outside adds a layer of complication and confusion to the already

overwhelming reentry experience” (2018, 1276). However, the participants in this study illustrate the idea that not only does the digital divide compound the barriers associated with reentry, it can complicate some of the most personal struggles that women experience when they are rebuilding their lives, in ways that run explicitly contrary to the goals of rehabilitation and reintegration.

Conclusion

This MRP provides an introductory examination of the impact of the digital divide on formerly incarcerated women in Canada. Because this is a new area of study within Canada, this MRP attempted to provide an overview of the opinions and experiences of individuals familiar with the women’s correctional system from various perspectives. By focusing on a qualitative content analysis of interviews with four different individuals, this research study was not an attempt to develop conclusions about the experience of the digital divide for all formerly incarcerated women in Canada. Instead, the purpose of this study was to begin to identify some of the issues that women can experience as a result of their experiences of the digital divide in Canadian prisons and jails. In addition to this, many similar studies that examine the digital divide for incarcerated populations deal with male populations (Barreiro-Gen & Novo-Corti, 2015; Reisdorf & Jewkes, 2016). This study, by examining the unique impacts of the digital divide experienced by women, provides an opportunity for future research on how intersecting characteristics and disadvantages cause individuals to experience the digital divide in unique ways.

This study also provides insight into some of the broad arguments in the field of research on the digital divide. For example, ongoing debates about the relevance of access as a measure of the digital divide, in comparison to newer measures such as usage (van Dijk, 2006), are given

nuance in the context of a population that faces both of these types of barriers to digital engagement. Rather than viewing research on the digital divide as a binary study of either access or usage, this study allows for an understanding of how barriers to digital engagement can change over time. This helps to provide support for the idea that this type of research is most successful when it takes a relative approach to understanding how populations experience the digital divide over time (Helsper, 2017).

By using a framework that seeks to understand the barriers to learning and adopting new technologies, this study also contributes to research on the digital divide by providing insight into the importance of motivation on digital engagement. This provides support for research which examines behaviour, beliefs, and opinions as critical factors in understanding and evaluating the digital divide. Despite claims that this field is lacking in consistent, meaningful definitions (van Dijk, 2006), this research study emphasizes the significance of the voices and experiences of individuals who experience the digital divide. In addition, this study provides rich qualitative data from different individuals, each with unique knowledge of the correctional system in Canada. Each of these individuals represents a group that could provide significant opportunity for further study on the digital divide. The opportunity for comparative study of the perspectives of different groups affected by the correctional system would also be a relevant area of study. This study also provides an opportunity for comparative work between the experience of the digital divide in correctional systems around the world.

Because of the limited scope of this research project, many of the contributions of this research study are in the questions and opportunities that it raises for further study. There are several directions for further study based on the areas of research that were explored in this paper. Further research on this topic could gather more data on the experiences of formerly

incarcerated women in Canada. Although this topic was not explored explicitly within this paper, there is also an opportunity for study of the difference between the experiences of women incarcerated in the federal system and the provincial system in Canada. Furthermore, there are a number of different characteristics that could be further explored within groups that make up formerly incarcerated populations, such as age, race, length of sentence, or any other personal factor that could uniquely impact the way that individuals experience the digital divide through the carceral system. The aspect of this study that examined barriers to digital skills development could be explored in order to understand how the correctional system can better provide opportunities for digital skills development. It would also be possible to explore how digital skills development can be incorporated into rehabilitation programs in order to facilitate reentry.

Ultimately, the directions for further study on this topic are varied and represent some of the most important questions in research on the digital divide. This research study provides insight into the experience of the digital divide for one of the most vulnerable populations in our country. The opinions and stories shared by the participants in this study provide rich data, and insight into a system that is shrouded in misunderstanding. There is no question that improving the correctional system at both a provincial and federal level would provide innumerable benefits to society, but there is a major divide in our country between those who have experienced the label of incarceration, and those who have not. Research that studies any population that experiences stigma and oppression at this level must be rooted in empathy. The digital divide may be shrinking for certain groups that are gaining access to new technologies, but there is a social divide that prevents formerly incarcerated populations from truly entering into a society that can help them find a stable, safe, and sustainable path forward. Although advances in technology have created incredible opportunities for advancement in society, we share a

collective responsibility to understand that there are populations who are struggling to maintain the necessary level of digital knowledge and access in the 21st century. If we truly believe that technology is a force for connection and engagement, then it is critical that we find ways of ensuring that those opportunities are not further entrenching the divides that already exist in our society.

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Appendix A

Interview Guide 1

3. Before your time in jail, how often did you use the internet for things like accessing information, finding employment, accessing government services, etc.?
4. What kind of access to technologies did you have during your time in jail?

(Probes: did you ever use a computer, did you know how to access technologies if you needed to, etc.)
5. Can you tell me about some changes in the internet or other technologies that you noticed after you were released?
6. What differences, if any, do you notice between the way that you use the internet and the way that friends and family use the internet?
7. What was your experience like using internet technologies or learning new technologies when you were released?

(Probe: how did you feel when using these technologies, how were you able to learn new technologies, specific instances with new technologies, etc.)
8. How would you use the internet for activities like finding a job, finding information, etc.?

(Probes: how comfortable were you using the internet for these purposes, do you prefer to use the internet to find information or access services, how do you use the internet in your day-to-day life, do you use a smartphone, etc.)
9. How do you think that the restrictions on these technologies while you were in prison affect your life now?
10. How do you learn new technologies at this point in your life?

(Probe: do you have people that help you, do you take classes, do you feel comfortable learning on your own?)

Appendix B

Interview Guide 2

1. What are some of the major obstacles that formerly incarcerated women face when leaving prison or jail?

(Probes: how do these differ depending on length of time incarcerated)
2. What kind of skills do these women feel they are lacking when they are reintegrating into society?

(Probes: what kind of confidence gaps do they face)
3. What impacts, if any, do you think that women uniquely experience when leaving prison or jail?
4. How do restrictions to internet access affect women when they are leaving prison or jail?
5. What kind of digital skills have you seen formerly incarcerated women struggle with after their release?

(Probes: basic skills, critical skills, accessing technologies, communicating, etc.)
6. How do formerly incarcerated women learn to use the internet or new technologies after they have been released?

(Probes: what kind of services/resources are most helpful)
7. How do restrictions to internet access and other technologies continue to affect women after they have reintegrated?

(Probes: obstacles in day-to-day life, length of adjustment period, etc.)