Navigating the Jungle: An Investigation of Older Adults' Quests for Governmental Information

by

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ABSTRACT

Government information interactions are inevitable at many points in our lives; life events and milestones often intersect with the need for governmental programs and services information that will help or facilitate the resulting life transitions. This qualitative research study takes a constructivist approach to examining the nature of governmental information interactions experienced by those age sixty-five or older. Semi-structured, in-depth qualitative interviews were conducted with ten older adults from Edmonton, Alberta to explore this issue. A grounded theory analysis of research data reveals that experiencing life events, either by oneself or by proxy of another, and financial planning activities prompt older adults' governmental information interactions. Data also reveals that participants interact with three government information channels when seeking information: human, technological, and print. Use of government-centric language or jargon and bureaucratic inefficiencies are characteristic of all governmental information channels. Human governmental information interactions are characterized by a need or dealing with the "right" person, identification of the importance of body language and non-verbal cues, reliance on health professionals for information, and the growing instance of hybrid human-technological information interactions. Technological information interactions are characterized by perceptions of instant and infinite information availability and polarized experiences with use of technology to facilitate information seeking. Print information interactions are characterized by use of the phonebook as an information-seeking starting point, engaging in orienting information-seeking activities as part of daily routines, such as reading daily newspapers for generalized information intake, and information invisibility in relation to pertinent government information in print resources. Study results indicate clear trust in the credibility of governmental information despite the often arduous process involved in seeking this kind of information, as well as the disparate nature of older adults' information behaviours and governmental information interactions spanning human, technological, and print information channels.

PREFACE

This thesis is an original work by Sophia Hoosein. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "Older Adults and Government Information", No. Pro00030275, July 27, 2012.

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Sincerely,
Sophia Hoosein

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CHAPTER 1

INTRODUCTION

Government programs and services intersect with many situations that arise throughout one's entire lifespan: birth and death registrations, marriage registrations, name changes, parental leaves, property taxes, and obtaining government identification numbers just to name a few. Thus, it is inevitable that citizens of all ages need access to information on governmental programs and services at certain points in their lives. However, Baby Boomers[1] are now turning sixty-five, which puts governments in a unique position with respect to responding to the information needs of older adults[2] due to Baby Boomers' disparate skill levels and engagement with technology and technology's growing presence in both general and governmental information delivery. Nonetheless, information on governmental programs and services should be fully accessible to all citizens through multiple mediums.

The critical nature of governmental information became apparent during my employment with the Alberta government's Seniors Ministry (2007 to 2012) where I held positions in information delivery and policy and planning capacities. These positions gave me the opportunity to interact with many of Alberta's older adults and their caregivers – both in person and over the telephone – while working in an information delivery role. My work with Alberta Seniors, in both frontline service and research and policy areas, affords me the unique perspective of understanding information needs and experiences that a number of Alberta's older adults and caregivers face while concurrently understanding how policy and legislative directions can influence information delivery.

I spoke with many seniors and their caregivers during my role in seniors' program information delivery. Many people that I spoke to during this time were

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[1] Baby Boomers refers to those born between 1946 and 1965 (Novak, Campbell, & Northcott, 2014, p. 56).

[2] Older adults, for the purposes of this study, refers to individuals who are sixty-five years of age or older. The terms "older adults" and "seniors" are used interchangeably throughout this study.

often in a state of personal or familial crisis: there were adult children who did not know what to do – and had little to no information on how to move forward – when their parent no longer had the capacity to make decisions for themselves; there were seniors whose spouses were moving to long-term care who needed information on the bureaucratic processes tied to this life transition; and there were seniors on fixed income who faced homelessness as a result of Alberta's 2007 economic boom and the strong push (at the time) to convert existing and affordable rental apartments into expensive condominiums. These are only a few of the many scenarios I encountered over the years, but the common and fundamental thread in all of these situations is that information, and the knowledge that results from information acquisition, is essential in helping people in these situations and equipping them with the tools to move forward. Another observation I had during my employment with Alberta Seniors is that there appears to be a disconnect between information availability and members of the public finding this information; all of the necessary information is out there, yet people often cannot find it. These situations, in a lot of cases, cannot improve until the person or their caregiver finds the information – the right information – that they are seeking. It was at this point that I fully realized how powerful information is – particularly governmental information in times of crisis – and that a significant number of people have challenges when trying to access information. I often wondered why so many people were in the proverbial dark when the information was out there and, in my naïve perception, readily available. These observations serve as the starting point for this thesis and the research questions I investigate in this study.

Research Questions

The evolving nature of how governments enable information interactions combined with the diverse information needs and experiences of today's seniors calls for a qualitative investigation to achieve an understanding of older adults' experiences with governmental information interactions. To this end, I use a

Constructivist approach to data collection and analysis to investigate the following research questions:

1) How do older adults find information on governmental programs and services?
2) What are some of the factors that prompt older adults to seek information about governmental programs and services?
3) How do older adults feel about the options governments make available for both governmental information sharing and information submission?
4) What do older adults reveal about the nature of their governmental information interactions and the associated information retrieval methods and tools?

This project strictly focuses on the governmental information experiences of older adults in Edmonton, Alberta. Examining the experiences of older adults in Edmonton, alone, required significant time and financial investments due to participant recruitment activities (including study advertisement costs to support recruitment), room rental fees to facilitate interview privacy, and project-specific telecommunications costs. Moreover, all project expenses were fully incurred through use of personal income (as opposed to grant funding, scholarships, bursaries, etc.). As such, I kept research activities within Edmonton, Alberta in the interests of maintaining a scalable recruitment timeframe, working within budgetary constraints, and pursing a body of work within the scope of a Master's thesis.

Preview of Literature

Information Behaviour

Accessing governmental information is an often complex and multi-layered process, and it sometimes requires engagement with multiple information mediums: human, technological, and print. In this study I examine human information behaviours (IB) in relation to older adults' governmental information interactions. In order to understand how IB informs and relates to this study, I explore various general conceptions of human IB (Case & Given, 2016; Fisher & Julien, 2009; Wilson, 2000), and information behaviours that inform this study such as information need (Case & Given, 2016; Dervin & Nilan, 1986), proxy information seeking (Abrahamson, Fisher, Turner, Durrance, & Turner, 2008; Abrahamson & Fisher, 2007; Gross, 1995), information seeking (Case & Given, 2016; Wilson, 2000), and information encountering (Erdelez, 1999; Williamson, 1998). I particularly focus on the concept of Everyday Life Information Seeking (ELIS) (Savolainen, 2008; McKenzie, 2003; Savolainen, 1995) and behaviours under the ELIS umbrella such as active and passive information seeking, and seeking and orienting information (Savolainen, 2008; McKenzie, 2003). I also explore ELIS within the context of technology use (Kari & Savolainen, 2007; Savolainen & Kari, 2004a & 2004b) for information seeking. Finally, I broadly examine existing literature that discusses the relationship between older adults and information behaviours (Williamson & Asla, 2009; Asla, Williamson & Mills, 2006; Wicks, 2004).

The Digital Divide

The currency of the Internet, and the growing instance of information provision tailored around technological affordances, presents challenges to many older adults who are not comfortable pursuing information interactions via technological mediums. This section of the literature review explores evolutionary implications of the digital divide (within the context of Western nations). I examine early conceptualizations of the digital divide upon its initial surfacing during the 1990s (Light, 2001; Howland, 1998), with a specific focus on the digital divide's characterization as a divide between technology "haves" and "have nots." Next, I explore how the divide takes shape during the 2000s as additional dimensions and barriers contribute to the creation of digital divides (van Dijk, 2006; Selwyn, 2004a; van Dijk & Hacker, 2003). I then look at how the digital divide evolves moving into the 2010s (Veit & Huntgeburth, 2014; Sparks, 2013). I examine the intersections between the digital divide and information inequality (Hilbert, 2014; Yu, 2006), and the impacts of the digital divide on older adults' information interactions (Novak, Campbell, & Northcott, 2014; Olphert & Damodaran, 2013; Niehaves & Plattfaut, 2014). Interestingly, one key factor that transcends time and continues to persist as a root of the divide: inequality.

E-Government / Digital Government

Digital government, synonymously called e-government, "denominates the use of ICT,[3] in particular the internet, to transform the relationship between government and society in a positive manner" (Veit & Huntgeburth, 2014, p. 6). Digital government, at its core, strives to effectively deliver programs, services, and information to citizens (Robertson & Vatrapu, 2012; Scholl & Klishewski, 2007). While extensive literature has been published on the burgeoning field of e-government in relation to politics (e-voting), business (e-procurement), society (e-participation), and open data, I specifically explore literature that relates to e-government's role in public service delivery; this aspect of digital government is closely tied to the digital divide and governmental information interactions. My examination of e-government explores its initial phase and projected growth stages (United Nations, 2002; Layne & Lee, 2001). Next, I take a look at how digital government starts to grow and evolve into the mid to late 2000s (Scholl and Klishewski, 2007; Andersen and Henriksen, 2006). I conclude my examination of e-government's evolution by exploring e-government and digital public service delivery in the present day (Veit & Huntgeburth, 2014; Robertson & Vatrapu, 2010). Finally, I discuss the intersections of e-government and the digital divide (Veit & Huntgeburth, 2014; United Nations, 2012) and how older adults interact with this channel of government (Choudrie, Ghinea, & Songonuga, 2013; Becker, 2005).

[3] Selwyn (2004a) characterizes information and communications technology (ICT) as "an umbrella term for a range of technological applications such as computer hardware and software, digital broadcast technologies, telecommunications technologies such as mobile phones, as well as electronic information resources such as the world wide web and CDRoms" (p. 346-347).

Theoretical Framework

The nature of this study's research suggests a constructivist and qualitative approach to research investigation, data collection, and analysis. Use of a constructivist framework is essential for understanding the lived experiences of research participants, as "constructivist qualitative research studies typically emphasize participant observation and interviewing for data generation as the researcher aims to understand a phenomenon from the perspective of those experiencing it" (Costantino, 2008, p. 119). Engaging in a constructivist approach to data collection and analysis created a research and analysis framework that enables obtention of a strong understanding of study participants' experiences as a result of meaningful, in-depth, and collaborative conversations between participants and me. My understanding of the experiences and issues that participants discuss is, "co-constructed with that of the participants through [our] mutual interaction within the research setting and dialogic interaction through researcher-initiated data generation efforts" (p. 119). This co-construction of knowledge is an essential aspect of engaging in a constructivist theoretical framework.

Methodological Engagement and Research Group

Embarking on this research gave me the opportunity to engage in in-depth conversations with ten older adults hailing from various walks of life. I heard multiple perspectives on governmental information interactions, which were made possible through creating an open (yet private) forum for discussion with study participants.

I specified a minimum age of sixty-five for study participation (refer to Appendix One for the study's call for participants notice); this is because sixty-five is often the minimum age of eligibility for senior-specific governmental programs and services. Study participation involved older adults meeting with me for one-on-one interviews to discuss their experiences with seeking and submitting governmental information.

The most effective type of interview for this study's qualitative inquiry is in-depth and semi-structured. Thus, I chose this method of interviewing because interviews of this nature facilitates a researcher-participant interview dynamic where "conversation oscillates among the researcher's introduction of the topic under investigation, the participant's account of his or her experiences, and the researcher's probing of these experiences for further information useful to the analysis" (Cook, 2008, p. 422). Cook further suggests that when engaging in this type of interviewing structure, "the researcher retains some control over the direction and content to be discussed, yet participants are free to elaborate or take the interview in new but related directions" (p. 422). I created an interview guide in order to facilitate effective qualitative interviews with a level of structure. The interview guide contains a list of open-ended questions that participants and I explored during each interview (refer to Appendix Two for the interview question guide). This allowed for guided and semi-structured, yet open-ended, conversations.

Interview transcripts were reviewed using a grounded theory analytical approach. This approach involves in-depth coding of research data, and helps researchers to "*define* what is happening in the data and begin to grapple with what it means" (Charmaz, 2006, p. 46). Engagement in grounded theory analysis can be done through a process outlined by Charmaz (2011), which involves "(1) defining relevant processes, (2) demonstrating their contexts, (3) specifying conditions in which these processes occur, (4) conceptualizing their phases, (5) explicating what contributes to their stability and/or change, and (6) outlining their consequences" (p. 361). Exercising this approach also helps with focusing analytical activities when combing through research data to look for factors that participants discuss in terms of initiating their governmental information interactions, and the nature of these interactions.

Value of Research

A holistic investigation of older adults' governmental information interactions in relation to all available information channels is an area that is not extensively examined. There are studies that exist on the separate components of this research intersection, such as studies on older adults general information-seeking behaviors (Williamson & Asla, 2009; Asla, Williamson, & Mills, 2006; Williamson, 1998), older adults' usage of ICTs (Niehaves & Plattfaut, 2014; Seals, 2008; Gatto & Tak, 2008; Fuglsang, 2005; Charness & Holley, 2004) the impacts of the digital divide on the general population (Dolničar, Prevodnik, & Vehovar, 2014; Howard, Busch, & Sheets, 2010; van Dijk & Hacker, 2003), the digital divide and implications for older adults (Schmidt-Hertha & Strobel-Dümer, 2014; Olphert & Damodaran, 2013; Kiel, 2005; Selwyn, 2004b), and citizens' use of digital government information and services (Veit & Huntgeburth, 2014; Carter & Bélanger, 2005; Hazlett & Hill, 2003). However, little work has been published that employs a holistic approach to investigating governmental information behaviours and interactions of older adults in relation to all available government information channels: human (includes in-person and telephone), technology-based, and print-based. Taking a holistic approach to exploring the research questions enables a complete investigation of older adults' governmental information interactions and demonstrates connections and disconnections among these channels. The results of this study also have degrees of transferability in relation to the governmental information interactions and experiences of older adults across other Canadian jurisdictions. Results and knowledge that this investigative study produces serve to benefit governmental ministries that specialize in seniors programs, services, and policy in terms of how these ministries can work to effectively deliver information and services to seniors and their caregivers. I explore study results and their implications in Chapter 4: Results and Discussion.

Definition of Terms

Older Adults / Seniors

I use the terms “older adults” and “seniors” interchangeably throughout this study. Older adults, or seniors, refers to adults of sixty-five years of age or older. A minimum age of sixty-five is chosen as the eligibility age for participation in this study; this is largely due to the fact that consideration for many provincial and federal senior-specific programs and services requires a minimum eligibility age of sixty-five. Moreover, the term “senior” is defined in legislation and publications as “a person who is 65 years of age or older” (Kembhavi & Elections Canada, 2012; Statistics Canada, 2007; Alberta’s *Seniors Benefit Act*, 1994, p. 2). Novak et al. (2014) further advise that “Canadian demographers use 65 as a handy way to mark to start of old age” (p. 58).

Governmental Programs and Services

I reference governmental programs and services throughout this study. This refers to provincially or federally-administered programs and services such as Old Age Security (OAS), Guaranteed Income Supplement (GIS), CPP (Canada Pension Plan), or Alberta Seniors Benefit (ASB). These are just a few examples of governmental programs and services.

Thesis Outline

This chapter introduces the study’s research investigation and provides an overview of connections between older adults and governmental information. I then present the study’s research questions, explain the study’s scope and limitations, and share my personal connection to this research investigation. Next, I preview key literature on information behaviours, the digital divide, and e-government/digital government research while considering older adults’ relationship to these research areas. I also discuss how a constructivist theoretical framework demonstrates the positioning of my research investigation. Readers are then given an overview of the research and analytical methodologies and frameworks I use when collecting and analyzing research data. I subsequently provide an overview of the study's relevance to various stakeholders – primarily governments and older adults – as well as the value of information and knowledge that this research investigation produces. Finally I define key terms that I use throughout this study.

Chapter Two, the Literature Review, discusses human information behaviours and focuses on behaviours under this umbrella such as information seeking, information encountering, and facets of Everyday Life Information Seeking (ELIS) that inform this study's implications. Next, I examine evolving characterizations of the digital divide (within a Western context), starting from the term's conception during the 1990s and into the present day. I also explore the intersection of the digital divide and e-government. I conclude the literature review with a discussion on e-government, also known as digital government, where I examine e-government's beginnings and how this public service offering has evolved into the 2000s and 2010s. Each area of the literature review considers how each of these areas impacts older adults' interactions with governmental information.

Chapter Three, Research Methods, thoroughly reports the research methodologies that I employ for data collection and analysis. This chapter also explores the research paradigm in which data collection and analysis are framed, outlines ethical study considerations, and explains key terms in relation to research questions and data collection and analysis.

Chapter Four, Results and Discussion, explores the study results gleaned from the qualitative interviews I conducted with ten local older adults. In this chapter I discuss current states of governmental information and examine the information interactions and experiences that study participants describe. I explore three types of governmental information interactions based on study results: human, technological, and print information interactions.

Chapter Five concludes this thesis by providing a summary of the study's findings and exploring the practical and scholarly implications of this research. I also discuss potential opportunities and avenues for further research and exploration on this topic.

CHAPTER 2
LITERATURE REVIEW

The highly interdisciplinary nature of this study situates this investigation at the intersection of multiple research areas. This holistic investigation on older adults' governmental information experiences is highly informed by existing literature in the research areas of human information behaviour, the digital divide, and digital government (synonymously referred to as e-government). While studies have been published that examine the relationships between older adults and information behaviours, older adults and the digital divide, and citizen relationships to digital government, existing research generally does not provide a holistic examination of the nature of older adults' governmental information interactions, in relation to all available information channels. As such, this literature review presents key research in relation to human information behaviour, the digital divide, and e-government within the scope of this study's investigation.

This chapter begins with an overview of human information behaviour where I discuss the overall concept of human information behaviour and examine the following information behaviours and concepts: information need, proxy information seeking, general information seeking, information encountering, and everyday life information seeking. I conclude this with a discussion on older adults and information behaviour. Next, I explore the evolutionary nature of the digital divide from its origins to the present day, and its impacts on information access and inequality in relation to older adults. Finally, I examine the evolution of digital government in relation to information while paying attention to its intersections with the digital divide and information inequality. The literature review concludes with a summary discussion.

Human Information Behaviour

The heart of human information behaviour (IB) is its focus on human interactions with information. Human, user-centered IB emphasizes "the person as a finder, creator, interpreter, and user of information" (Case & Given, 2016, p. 8). However, the original focus of information behaviour research was on information systems as opposed to information users (Case & Given, 2016; Dervin & Nilan, 1986); a paradigmatic shift in IB's focus became apparent upon Dervin and Nilan's (1986) seminal article, "Information Needs and Uses," where Dervin and Nilan suggest the importance of users in relation to information seeking as opposed to information systems. There are many general characterizations of information behaviour, such as Savolainen's (2008) description of IB as "a sufficiently broad context where information needs, seeking, and use can be reviewed as a whole" (p. 45). Conversely, Fisher and Julien's (2009) extensive review of information behaviour research provides a comprehensive characterization of information behavior, including reference to both passive and active information interactions. Fisher and Julien define IB as "focus[ed] on people's information needs; on how they seek, manage, give, and use information both purposefully and passively, in the varied roles that comprise their everyday lives" (p.7-1). Wilson's characterization of IB (2000) also touches on both passive and active aspects of information behaviour. Wilson describes IB as

> The totality of human behavior in relation to sources and channels of information, including both active and passive information seeking, and information use. Thus, it includes face-to-face communication with other users, as well as the passive reception of information as in, for example, watching TV advertisements, without any intent to act in the information given. (p. 49)

While there are many associated behaviours under the umbrella of IB; I focus on those that inform this study's investigation of older adults' experiences when embarking on governmental information interactions: information need, proxy information seeking, information seeking, information encountering, and everyday life information seeking (ELIS).

Information Need

One of the main points of investigation in this study relates to situations that prompt older adults to start looking for information via government channels. It is therefore essential to consider what constitutes an information need, and how one recognizes that the acquisition of information is critical in helping or resolving a situation.

Early discussions on information needs largely focus on information systems as opposed to users' needs (Dervin & Nilan, 1986). While Belkin's Anomalous State of Knowledge (ASK) hypothesis primarily focuses on information retrieval[4] within the context of information systems (Belkin, 1982), there are aspects of Belkin's hypothesis that are relevant to the current discussion on information needs. Belkin (1982) suggests, "an information need arises from a recognized anomaly in the user's state of knowledge concerning some topic or situation and that, in general, the user is unable to specify precisely what is needed to resolve that anomaly" (p. 62). Moreover, "the user, faced with a problem, recognizes that his/her state of knowledge is inadequate for resolving that problem, and decides that obtaining information about the problem area and its circumstances is the appropriate means towards its resolution" (p. 63).

Case and Given (2016) define information need as "recognition that your knowledge is inadequate to satisfy a goal that you have" (p. 6). Moreover, information needs are "brought about when an individual realizes that they are not comfortable with their current state of knowledge" (p. 385). We can, therefore, consider an information need as akin to a missing puzzle piece; the need for

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[4] This study does not focus on information retrieval (IR) because its focus is not on information systems, specifically, but, rather, provides a holistic examination – regardless of information channel – of older adults' experiences and interactions with governmental information. As such, exploration of IR is beyond the scope of this thesis discussion.

information is evoked by an individual's need for clarity around a situation or problem. Throughout this study, I use the term information need when referring to participants' assertions of requiring information to reduce knowledge gaps and/or personal uncertainty about a situations that arise in their lives. Furthermore, the term information need is, arguably, inextricably linked to information seeking: it is often an information need that prompts an individual to engage in information-seeking activities and resulting information interactions.

Proxy Information Seeking

Many seniors have family members, friends, or caregivers who assist them when an information need arises, therefore prompting the need to engage in information seeking activities. Before delving into a discussion on the general information seeking and some of its critical components in relation to this study, it is important to explore the angle of proxy information seeking, which stems from imposed query (Gross, 1995); imposed query is essentially when "people are seeking information not because they have identified an information need themselves, but because they have been set on that course by another" (p. 236). In cases of proxy information seeking, the question or path of investigation "has been *imposed* upon him or her by someone else" (p. 236). Gross further argues, "a key feature of the imposed query is that it is negotiated and transacted outside the purview of the person originating it" (p. 237). Abrahamson and Fisher (2007) also explore the notion of proxy information seeking within the context of health information seeking, and they characterize those fulfilling this role as "lay information mediar[ies]," which they characterize as,

> People who seek information on behalf of others without necessarily being asked or engaging in follow-up with the recipient(s), lay information mediar[ies] are becoming more prevalent and thus identifiable due to varied societal factors and expanding information and communication technologies. (p. 121)

Abrahamson, Fisher, Turner, Durrance, and Turner (2008) subsequently study lay information mediary behaviour, or, in other words, "non-professional information mediaries" (p. 311) within the context of searching for health information online. While Abrahamson et al. share the same notion of how to characterize a lay information mediary, a key finding of their study relates to how

> LIMs [lay information mediaries] appeared to play a role in helping those for whom they searched to overcome these barriers as well as those associated with affective and physical aspects of illness (i.e., when patients were too weak of overwhelmed to seek, process, or share health information themselves). (p. 316)

While Abrahamson and Fisher (2007) and Abrahamson et al. (2008) focus on lay information mediaries within the context of health information seeking on behalf of another, their descriptions of lay information mediaries and lay information mediary behaviours is transferable to the context of this study. A number of participants describe helping their older senior parents navigate life events and transitions, and embark on information seeking on behalf of their parents in relation to government programs and services; they do so to help their parents through these transitions and reduce uncertainties that these life changes produce. I explore these instances in Chapter 4: Results and Discussion.

Proxy information seeking is primarily about assuming an information-seeking role on behalf of someone else; however, it is critical to explore the general action of information seeking and its key components in relation to this study. I explore this in the subsequent section.

Information Seeking

It is critical to explore information seeking as part of this literature review due to its relationship to older adults' seeking of governmental information prompts and interactions. It became apparent to me during my employment with the Alberta government in information delivery roles that information seeking activities often serve as a means of problem-solving; individuals and their caregivers go through the – often arduous – process of acquiring information, specifically from governments, with the ultimate goal of gaining knowledge and, arguably, empowerment, by result. Case and Given's book (2016) supports this notion in the suggestion that,

> Information seeking is a behavior that occurs when an individual senses a problematic situation or information gap, in which his or her internal knowledge and beliefs, and model of the environment, fail to suggest a path toward satisfaction of his or her goals. (p. 372)

Wilson's (2000) characterization of information seeking focuses the active nature of this behaviour and also supports the notion of seeking information to resolve issues:

> The purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems (such as newspaper or a library), or with computer-based systems (such as the World Wide Web). (p. 49)

One of the "manual" ways that that individuals purposively seek information, that Wilson does not explicitly mention, involves consultation with information professionals such as librarians, or, in the case of this study, those who work in information service roles at government offices. However, these information professionals must exhibit specific characteristics to facilitate successful information interactions that satisfy information seekers' goals. Existing literature on reference interviewing for Library and Information Science professionals outlines a number of best practices and skills for enabling effective information interactions with information seekers.

Ross, Nilsen, and Radford (2009) discuss the necessary skill set within the context of a librarian conducting a reference interview with a patron; however, these suggestions are undoubtedly transferable to any professional whose role involves connecting users with information. Ross et al. discuss the importance of non-verbal communication, active listening, approachability, question negotiation and asking sense-making questions, establishing common understanding of the question through paraphrasing and summarizing information seekers' questions, and effective and positive interview closure. Additionally, Ross et al. advise information professionals on what not to do when facilitating an information interaction: "[failing] to establish contact" through inattentiveness or forgoing consultation with information seekers; "bypassing the reference interview and accepting the initial question at face value"; providing an "unmonitored referral, which occurs when the staff member refers the user to a source, either inside or outside the library without taking any steps to check whether the user eventually gets a helpful answer"; "failure to pay attention" to what the information seeker is really asking; and, "lack of knowledge of appropriate sources" (p. 70) when helping the user with their information search. Similarly, Cassell and Hiremath (2009), who also examine these skills in the context of reference librarians, discuss the need for information service professionals to understand the needs of an information seeker through establishing rapport with users and exhibiting approachable body language and active listening skills to show interest in information seekers' queries. All of these suggestions are certainly transferable and necessary to those in governmental information delivery roles.

Moreover, Erdelez (1999) pays heed to an important aspect of information seeking that Wilson and Case and Given's characterizations do not encompass: passivity. Erdelez suggests,

> The term *information-seeking behavior* is in use as a generic term for all types of information acquisition. [However,] this label is a misnomer because passive and opportunistic information acquisition such as some types of browsing, environmental scanning or information encountering more resembles "gathering" than "hunting" – the active pursuit suggested in the term *seeking*. (p. 25)

Savolainen (2016), further suggests that "the conceptual setting [of information seeking] has become more complex due to the introduction of related terms such as information acquisition and information search that are sometimes used interchangeably with information seeking" (p. 1157). In this sense, information seeking and information encountering are, arguably, akin to two sides of the same coin; information seeking encompasses active and purposeful pursuit of information for problem-solving purposes, whereas information encountering, which I subsequently discuss, considers the passive, yet equally important aspect of information acquisition.

Information Encountering

There are many instances where individuals acquire information without engaging in a purposeful, goal-driven "hunt." Moreover, individuals often encounter long-term or ongoing life occurrences that elicit information needs; however, one might cease an aggressive and active search for information Once initial information needs are met. That said, individuals are arguably more inclined to notice and keep stock of news and information that surfaces in relation to their situation, such as when reading a daily newspaper. Situations like this characterize information encountering, which Erdelez (1999) describes as "bumping info information while carrying on a routine activity" (p. 25). Furthermore, "encounterers have a tendency to stop and 'collect' useful or interesting information they bump into" (p. 26). Information encountering is also linked to the concept of information serendipity (Foster & Ellis, 2014), and the "opportunistic acquisition of information" (p. 1022). Agarwal (2015) further advises, "serendipitous discovery of information is different from purposive information seeking, as it is more about encountering or stumbling upon information when not directly looking for it" (p.1).

Williamson (1998) stresses the role of habitual monitoring of daily media when describing information encountering (interchangeably referred to as incidental information acquisition) in order to stay generally informed of one's social and environmental surroundings. It is often through mediums such as daily newspapers, news telecasts, radio, or social media feeds where individuals "bump into" information, which, in some cases, can be as important as information found through active, purposeful seeking. Engagement in daily monitoring of news and events is also a major component of Everyday Life Information Seeking (ELIS), which encompasses both active and passive information seeking activities for the purposes of information acquisition.

Everyday Life Information Seeking (ELIS)

Governmental programs and policies touch many parts of our lives. Often, critical issues raised by the media are linked to governmental policies or practices, which arguably sparks ongoing interest and monitoring of these issues if they are relevant to one's life situation. Information found or sought in this way is largely done under the auspices of everyday life information seeking (ELIS), which Spink and Cole (2001) describe as "[a] branch of user studies that examines information behavior in daily life activities" (p. 301). This realization of information seeking behaviour can be considered as "fluid, depending on the motivation, education, and other characteristics of the multitude of ordinary people seeking information for a multitude of aspects of everyday life" (p. 301).

Savolainen (1995), conceptualizes ELIS within the framework of "nonwork information seeking," (p. 259) and broadly defines it as "the acquisition of various informational… elements which people employ to orient themselves in daily life or to solve problems not directly connected with the performance of occupational tasks" (pp. 266-267). Savolainen discusses nonwork information seeking within the context of "way of life," which he refers to the "order of things" (p. 262), and "mastery of life," which he argues may be active or passive, and as "the ways by which individuals orient themselves in (typical) problems situations and seek information to facilitate problem solving" (p. 265). Ultimately, in this sense, individuals engage in information seeking activities under the ELIS umbrella with the intent of establishing personal order in life through information acquisition.

There are two major dimensions of ELIS that guide how Savolainen characterizes everyday life information seeking activities: orienting information and problem-specific – or practical – information (2008; 1995). Savolainen (2008) describes orienting information as

> Daily media habits such as reading the newspaper before leaving for work, listening to radio news while driving home, and watching television news in a routine, sometimes absentminded way in the evening. (Savolainen, p. 83)

Essentially, seeking orienting information encompasses the daily, routine, information activities undertaken by many as a means of maintaining an awareness of one's environment or surroundings through "monitoring everyday events" (p. 83). Individuals' information seeking activities under this dimension are therefore not for the purposes of active, focused, or urgent information "hunting" with the intent of meeting a specific need or solving a specific query.

Conversely, Savolainen argues that individuals engage in ELIS's other dimension, seeking problem-specific – or practical – information (2008; 1995), for the purpose of "solving individual problems or performing specific tasks" (2008, p. 83). Therefore, it is fair to characterize this dimension of ELIS as actively seeking information for specific and focused purposes. Moreover, "compared to seeking orienting information, seeking problem-specific information may be episodic in nature…[and] may last a fairly long time, depending on the characteristics of the problem or task at hand" (2008, p. 114). Information seeking activities under this dimension of ELIS are, thus, dependent on experiencing an event or situation that causes uncertainty and disrupts one's mastery of life. The active pursuit of specific information, in turn, helps to resolve personal uncertainty while empowering individuals and helping in returning one's life to a "mastered" state.

McKenzie (2003) also investigates ELIS, and does so within the context of Canadian women who are pregnant with twins and in search of information to alleviate uncertainties and knowledge gaps as a result; however, a number of McKenzie's ELIS findings are relevant to ELIS discussions in other contexts, such as in the case of the present study, which focuses on older adults' governmental information behaviours. McKenzie proposes the following elements as comprising a robust set of everyday life information practices:

> Identification of potentially helpful sources; serendipitous encounters; planned encounters with potentially helpful sources; referrals to potentially helpful sources; proxy searchers; barriers to seeking connections; making connections with potentially helpful sources; connection failures: unsuccessful attempts to make connections with potentially helpful sources; barriers to interaction with identified sources; and patterns of interaction with identified sources. (pp. 23-24)

McKenzie offers a more granular breakdown of both passive and active information behaviours under the ELIS umbrella in contrast to Savolainen's two overarching dimensions of ELIS.

Similarly, Loudon, Buchanan, and Ruthven (2016) investigate ELIS within the context of "first-time mothers, as they encounter new, significant and pressing information needs which arise alongside their new responsibilities" (p. 24). While the research focus and participant sample is vastly different from that of the present study, seniors, much like first-time mothers, are encounter new situations that warrant information such as turning sixty-five, attending to health concerns as a result of aging, or investigating new residence needs to facilitate living with physical, mobility, or health limitations.

ELIS and Technology Use

Use of the web and other technology-based tools or devices contributes to growth of everyday information interactions occurring via the web or through other technological tools; this is not lost on Savolainen (1999), who examines the role of Internet in information seeking and "meanings which people attach to it[s] use by assessing the usefulness of the internet in relation to alternative sources and channels" (p. 768). Savolainen and Kari (2004a) subsequently study "the ways in which people use the Internet… in the context of everyday life information seeking" (p. 219). While the (2004a) study is relatively dated, it has some key findings that are arguably still applicable today. Descriptions of the Internet as allowing one to have the world at their fingertips (p. 221), while, conversely, feeling a loss of control or “failing to find one’s way around and getting lost” (p. 221) as a result of the unstructured nature of the Internet are still conceptions that many individuals may still have of the Internet, especially those who are relatively unfamiliar with navigating this information terrain. Savolainen and Kari (2004b) subsequently discuss the notion of ELIS and technology use and “[focus] on the ways in which information sources and channels are valued and prioritized in the context of everyday life information seeking” (p. 416). This latter study, which samples a broad age range of participants, found the Internet as a preferred source for information seeking activities due to its “easy accessibility, currency, interactivity, and the board repertoire of information” (p. 423). Kari and Savolainen (2007) continue their examination of the Internet’s intersection with information seeking as a result of the Internet’s growing influence and presence in everyday life. The 2007 study investigates information seeking in the specific context of using the Internet for information seeking activities in order to meet personal development end goals. Kari and Savolainen specify that, “the major contribution of this study is the elaborating of the interrelationships between Internet searching and self development” (p. 65). In the case of older adults and governmental information, the Internet often houses a plethora of pertinent information relevant to seniors’ and caregivers’ information needs; that said, today’s older adults have unique relationships with information seeking via the Internet and technological devices. I explore this relationship in greater detail in the digital divide section of this chapter as well as in Chapter 4: Results and Discussion.

Older Adults and General Information Behaviour Research

Studies on the information behaviours of older adults in a more general context have been undertaken by scholars such as Wicks (2004), who “examines the information-seeking behavior of older adults and asks whether the information sources used by participants vary with the roles they are performing" (p. 1). Interestingly, part of Wick's investigation relates to whether "the trend [of] disseminating government information via the World Wide Web reflect[s] an effective form of communication with [older adults]" (p. 3). While this presents some significant similarities to the research that I have undertaken, particularly in regards to governmental information delivery, it is important to note that this is a single component of Wicks' investigation; conversely, a holistic investigation on older adults' experiences with governmental information is the crux of my investigation. Wicks also suggests that "as roles, technology and other factors in [older adults'] lives change, not only do older adults have to make adjustments in their information-seeking behavior, but also the organizations which serve this population must ask whether there is a need to alter information delivery mechanisms" (p. 2). Participants of Wicks' study reveal that government information was "sought from printed government publications, interpersonal contacts (in this case, telephone calls or visits to government offices), and the World Wide Web" (p. 13), and "while governments move ever more significantly into Web delivery of information, the older adults examined in this study still strongly prefer in-person contact and print resources over electronic delivery" (p. 20).

Asla, Williamson, and Mills' 2006 study suggests a gap in research that focuses on the information seeking behaviours of older adults, particularly those in the "oldest old" (age 85 and over) category (p. 49). The authors examine "the role that information might play in whether or not people are aging successfully" (p. 49), and the unique information needs of seniors, such as the case of when "people grow older, they may become more selective in the kinds of information they seek and where they seek it" (p. 52). Differing experiences with and exposure to technology, in-person social networks, and residence situations unique or common to older adults – such as living in seniors' lodges or long-term care facilities – all contribute to the particular information experiences of older adults. Asla et al. suggest "understanding more about all aspects of information and communication in relation to older people, especially the oldest old, is becoming increasingly crucial considering the changing demographic profile of communities and the implications for government and society" (pp. 59-60).

A latter study conducted by Williamson and Asla (2009) discusses information experiences associated with a "fourth age," which refers to "the very old" (those age 85 and older) and, in some cases, the "old-old (aged 75-84) (p. 79). Williamson and Asla argue that "the fourth age presents a unique informational context" as a result of the mental and physiological realities of aging (p. 79). Incidental information acquisition proves very important for this demographic (p. 80), and "monitoring the world" in an everyday life information seeking context becomes increasingly difficult as a result of aging (p. 80). Williamson and Asla also explore the role of the Internet, where "a general belief is that more and more older adults will use the Internet [for information seeking activities] because they have grown up with it and/or used it in the workplace" (p. 81). The authors also examine the use of assistive technology, which "may hamper communication / information seeking even when a person has been a regular and competent computer/Internet user in the past" (p. 81).

The unique information experiences of older adults, specifically in relation to their governmental information interactions, warrants an exploration of information needs, and related information behaviours such as proxy information seeking, general information seeking, information encountering, and behaviours associated with everyday life information seeking (ELIS) activities. Older adults also have disparate experiences with using technology to facilitate information interactions. As such, the next section explores the digital divide, with particular attention to its implications for governmental information interactions and older adults.

The Digital Divide

The digital divide and its societal implications are continually expanding. In this section I explore the evolutionary implications of the digital divide within the context of Western, first-world nations. First, I discuss initial conceptualizations of the digital divide upon its initial surfacing during the 1990s. Next, I explore how the divide takes shape during the 2000s and how it manifests into the 2010s. Finally, I examine the relationship between the digital divide and older adults, and how this impacts information interactions as a result of growing overall usage in information and communications technology (ICT) for accessing governmental information. Interestingly, there is one key factor that transcends through time and continues to persist as a root of the divide: inequality.

The Digital Divide: The 1990s

It is challenging to find literature published in the early 1990s that makes specific reference to the digital divide; this is likely because "the term digital divide entered the American vocabulary in the mid-1990s to refer to unequal access to information technology" (Light, 2001, p. 709). Van Dijk (2006) suggests that "in the second half of the 1990s the attention for the subject of unequal access to and use of the new media started to focus on the concept of the so-called digital divide," which van Dijk broadly characterizes as "the gap between those who have and do not have access to computers and the Internet" (p. 221).

Howland's (1998) examination of the digital divide ponders potential downstream societal effects as the world approaches the twenty-first century. Howland discusses growth in a dichotomous "haves" versus "have-nots" divide, and suggests,

> The 20th century technological revolution, that is redefining business, education, and even government operations, has a rarely acknowledged dark underbelly…. Commonly referred to as the 'digital divide,' this phenomenon has separated much of the world into two societies – one comfortable with computers and with adequate access to telecommunications technologies, and one that neither possesses, nor has access to, these tools. Technology has created a chasm, polarizing

> 'technological haves' from the 'technological have-nots'… what is most alarming is that the chasm of the 'digital divide' is widening rather than narrowing. (p. 287)

Selwyn's (2004a) assessment of the digital divide focuses not only on technological haves and have-nots, but also considers the impact the divide has on information access:

> The 1990s…saw the initiation of mainstream political discussion over 'information haves' and 'information have-nots'… 'information and communication poverty'… [and] the digital divide… [and] in so doing, the prevailing political view broadly settled on combating a perceived dichotomous divide between those citizens who are 'connected' and those citizens who remain 'disconnected' from technology, information, and… modern or postmodern society. (p. 344)

Despite the digital divide's status as a new phenomenon in relation to the 20th century's technological revolution (Howland, 1998), the divide, in the 1990s, is recognized as largely dichotomous; "haves" likely have more access to information and different educational, business, or even governmental experiences as a result of technological means such as the Internet. "Have-nots," on the other hand, do not share these benefits due to a lack of technological access. As the digital divide phenomenon persists and grows through the 1990s and into the 2000s, more factors come to light that contribute to and characterize the divide as more than a straightforward "haves" versus "have-nots" dichotomy.

The Digital Divide: the 2000s

The concept and nature of the digital divide significantly expands as the world moves into the 21st century; literature increasingly demonstrates the multi-faceted effects of ICT's growing presence in society. The digital divide is no longer seen through a simple dichotomous lens. This is clear in van Dijk and Hacker's (2003) characterization of the digital divide, as they suggest that the divide now presents four kinds of access barriers:

1. *Lack of elementary digital experience* caused by lack of interest, computer anxiety, and the unattractiveness of new technology ("mental access").
2. *No possession of computers and network connections* ("material access").
3. Lack of *digital skills* caused by insufficient user-friendliness and inadequate education or social support ("skills access").
4. Lack of significant *usage opportunities* ("usage access"). (pp. 215-216)

The barriers that van Dijk and Hacker point to the "why" factors that contribute individuals or groups of persons landing on the marginalized side of the digital divide. These variables shed light not only on factors that are absent for those on the disenfranchised side of the divide, but these barriers also provide clear indication of the factors that one must possess or have access to in order to benefit from the affordances of technology.

Selwyn (2004a) also acknowledges the need to expand examination of the digital divide beyond viewing it as a dichotomous phenomenon. Selwyn opines,

> Now that the realities of an ICT-based society are becoming more apparent than they were a decade ago… there needs to be a political recognition that the crucial issues of the digital divide are not just technological – they are social, economic, cultural and political. (p. 357)

Much like van Dijk and Hacker, Selwyn also strives to examine how other factors, aside from technology, create segments of society that are either marginalized or empowered by the presence of technology. Selwyn acknowledges governments' awareness of this, and suggests that many governments "have been spurred on by the apparent inevitability of the information society and have initiated ICT-based programmes which aim to ensure that their citizens do not get 'left behind' and are able to 'win' in the new global era" (p. 342).

By the mid to late 2000s, scholars start to examine further conditions that create the divide. van Dijk's (2006) later examination of the digital divide delves into types of access, which refers to physical access to technology; material access, which refers to “observation of divides of physical access to personal computers and the Internet among demographical categories,” such as “income, education, age, sex and ethnicity” (p. 224); motivational access, such as refusal or lack of interest in getting connected to the Internet and corresponding technology; skills access, which refers to learning to effectively use and manage hardware and software; and usage access, referring to “actual usage of digital media” (p. 229). It, thus, becomes increasingly apparent that scholars, governments, and businesses alike must take a multi-pronged approach when investigating the digital divide and strategizing how to mitigate or work within this divide when delivering information or essential services to the public.

The Digital Divide: the 2010s

The digital divide in the present day extends beyond the notions of physical access to technology and the resulting technology and information “haves” and “have-nots.” However, inequality still persists as a major factor of the divide; Veit and Huntgeburth (2014) reinforce this notion with the framework in which they examine the digital divide, which they ascertain as “inequality regarding *access* to *ICT* between *advantaged and disadvantaged groups*” (p. 39).

A significant component of today’s digital divide moves beyond access to technology, but, also includes consideration of the type and quality of access and connection to ICTs that individuals have. Sparks (2013) suggests that access can refer to the type of connections that individuals or groups have when interacting with ICT, such as landlines, broadband, or dial-up, or wireless connection technology (p. 31, paraphrased). Moreover, the United Nations (2014) suggests,

> The digital divide stems from a lack of physical access to technology between groups and individuals. This can be in terms of Internet connection, availability of broadband, computers, smart phones, mobile devices, and in general a disparity in access to the communication infrastructure. (p. 124)

Another factor of the digital divide in its current state involves the growth of the ICT skills-based divide and the impact this has on information access. The United Nations echoes the notion of a skills-based divide and suggests,

> The digital divide also arises from a disparity between… the levels of education and skills needed to use the technology. The lack of ability to use the technology may stem from differences among Internet users in the capacity to efficiently and effectively find information on the Web. (p. 124)

Sparks (2013) considers the inextricable links between the strong presence of technology and possessing the necessary skills in relation to receipt of services and societal participation:

> Technologies are increasingly woven into the fabric of daily life. In terms of governance, the twin interests of equity and efficiency imply that more and more services are provided in electronic format, and that access is available to all citizens…[Further], ICT skills are increasingly a requirement for many types of employment and a necessary part of social life. (p. 29)

Moreover, these skills are arguably now required for quick, comprehensive information interactions, such as virtual chat, which now garners a strong presence at both publicly-funded institutions like public libraries and private commercial companies as a client information service channel. Veit and Huntgeburth (2014) echo this notion in their suggestion that "information is essential for the survival and self-respect of individuals… [and] at a time when digital information is replacing traditional media (e.g., print media), digital illiteracy has to be combated by society just like traditional literacy" (p. 35).

The common thread that is echoed throughout the digital divide's evolution is that the heart of the divide always stems from inequality. While Sparks (2013) speculates that "the digital divide… is a function of deep-seated and enduring social inequalities and, the evidence strongly suggests, has come to act as a significant factor in the reproduction of these same inequalities" (p. 38), Veit and Huntgeburth (2014) focus on the lasting impact of the divisive nature of ICT in relation to information, as they suggest that “many observers suspect that ICT will inevitably reinforce the gap between the information “haves” and “have-nots” and the rich and the poor in the information society” (p. 36).

The Digital Divide and Information Inequality

The inequalities that the digital divide produces intersect with issues of information access for those situated on the wrong side of the divide. Individuals or groups with compromised or limited access to ICTs are arguably at a significant information disadvantage in relation to those with uncompromised access due to the vast amounts of information available through ICTs.

Yu (2006) examines research on information and digital divides and identifies intersecting disparities between both divides. Yu argues that research shows, “despite their shared concerns with illustrating social inequality through the lens of information resource distribution, the two areas [information divides and digital divides] present overlapping research communities” (p. 229). Much of the overlap has to do with the disparities that the digital divide, and access issues to ICT, both produces and perpetuates, especially within an information context. Yu suggests,

> Recent conceptualization of the information divide phenomenon seems to have demonstrated two notable intentions of its research community: to grasp the complexity of the phenomena by conferring on it multifaceted connotations, and to encapsulate the ICT-exacerbated disparity by adding a technological dimension to the concept. (p. 231)

Yu’s later work (2011) calls for an “integrative approach in information inequality research” (p. 661) with the hopes that scholars and researchers recognize the significance of the digital divide’s impact on information access. Yu (2011) argues that “all forms of information- and ICT-related divides contribute to the overall information inequality,” but acknowledges that fact that “much of the information divide research in LIS is concerned with how disadvantaged sections of society are deprived of information access" (p. 661). However, the information divide is arguably examined in a separate capacity than the digital divide, despite the commonalities and intersections between the two types of divides in relation to information inequality.

Hilbert (2014) also explores the relationship between information inequality and the digital divide, and strives to gain "understanding of the effects of the digital age on the distribution of the world's technological capacity to communicate, store, and compute information" (p. 832). Hilbert argues that, "similar to the history of inequality in motorized social mobility, technological information inequality is becoming a constant structural characteristic of our societies" (p. 832). Moreover, "any realistic assessment of social, cultural, economic, and political change by means of ICT must include an adequate and solid analysis of the nature and distribution of the capacity of technologically mediated information" (p. 833). The growth in individuals' use and possession of ICTs as well as the increasing availability of ICTs at public places, such as public libraries, is arguably a clear demonstration of the inextricable and growing link between information access and ICT access, and the importance of technology in facilitating access to and use of information.

However, it is important to reiterate the fact that access to ICTs does not necessarily mean that one can meaningfully engage with these devices for effective information interactions. Older adults are often situated on the wrong side of the divide, and the growth of ICT's presence and integration into everyday information activities certainly impacts information interactions.

Older Adults and the Digital Divide

While it was challenging to find literature that specifically examines the relationship between older adults and the digital divide, there is existing literature that deals with older adults' access to and experiences with ICTs and the Internet. These studies generally demonstrate that in the present day, "older people [still] lag behind the general population in Internet use" (Novak et al., 2014, p. 106). In this section I explore older adults' general positioning and relation to the digital divide and consider the factors that contribute to and the implications of landing on the "right" or "the wrong side" (Olphert & Damodaran, 2013, p. 564) of the digital divide. Additionally, I explore strategic directions that governments are taking to reduce or mitigate the divide and improve ICT access for marginalized groups, such as older adults.

While older adults encounter skills-based challenges as a result of "lack of familiarity with computers, lack of training, and hard-to-use systems" (Novak et al., p. 107) as well as access-based challenges (Niehaves & Plattfaut, 2014), the relationship between older adults and the digital divide is not simply a skills-based or access-based divide; the physical effects of aging, such as changes in physical dexterity, cognition, or vision, may present barriers for older adults when engaging with ICTs (Novak et al., 2014; Morgan & Kunkel, 2011). However, the importance of ICT and the breadth of its impacts on everyday life and information acquisition continue to grow. Selwyn (2004b) suggests that "the ability to use information and communications technology (ICT) is now assumed by most commentators to be a prerequisite to living in the "information age"' (p. 369); this suggestion rings exceptionally true in the present day, where information interactions often start via the Internet. Moreover, scholars suggest that landing on the "right" side of the digital divide enhances one's quality of life through increasing access to ICT-based service delivery, thereby enabling greater levels of independence and enhancing maintenance of personal and social connections (Abad, 2014; Niehaves & Plattfaut, 2014; Olphert & Damodaran, 2013). It is therefore important to consider how governments can facilitate an increase in ICT usage by older adults and other digitally marginalized individuals and groups. Abad (2014) argues,

> The key to bridging the digital divide for older people is not asking what is the best way to bring ICT to this population group, but rather what is the optimal way for older people to benefit from ICT to enhance their personal and social situation. (p. 176)

In other words, it is critical that older adults are not simply given access to ICTs, but it is also necessary to examine how they can benefit from engagement with ICTs; this is particularly true in the case of information acquisition.

The digital divide plays an interesting role in relation to information interactions. The nature of the divide, its implications, and its scope are continually evolving. The growth of ICT use in everyday life, particularly for everyday life information activities, unquestionably impacts human experiences and interactions with information. Those situated on the advantageous, or "right," side of the divide – meaning those with the necessary skills and access to ICTs – can fully engage in the information benefits that arise from ICT access and usage. Conversely, those who find themselves on the disadvantaged, or "wrong," side of the divide often lose out on the informational benefits that arise from effective engagement with ICTs. Many older adults are unfortunately situated on the wrong side of the divide; this is problematic due to the growing instance of information and self-service via governmental Internet sites and web tools. In the next section, I explore the growing concept of e-government and its relationship to information, the digital divide, and older adults.

E-government / Digital Government

Digital government, synonymously called e-government, is "the application of information and communications technology (ICT) to the practice of government and research in this area" (Robertson & Vatrapu, 2010, p. 317). The concept of digital government is complex and multi-faceted. Its breadth and scope envelops aspects such as goals of digital governments; impacts of digital government; the digital divide and its influence on digital government; legal aspects tied to digital government service and information delivery; and the benefits of digital government implementation with respect to citizen involvement in government, politics (e-voting), business (e-procurement) and society (e-participation) (Veit & Huntgeburth, 2014). However, for the purposes of this study, I specifically focus on the relationship between digital government channels and government information access and delivery.

This section of the literature review examines the evolution of e-government within a provincial and federal government context, while paying specific attention to digital government's information service for citizens. I start by exploring the early days of digital government – typically in the late 1990s and very early 2000s – primarily through Layne and Lee's exemplary 2001 model of projected dimensions and stages of e-government evolution. Next, I examine e-government's progression into the mid to late 2000s in order to explore the growth of digital government and its impacts on citizens' access to or interactions with government information and services. I explore Andersen's 2005 Public Sector Process Rebuilding (PPR) maturity model to help demonstrate e-government's growth while paying attention to potential differences for the future growth projections in contrast to previous projections, particularly those made by Layne and Lee. Finally, I examine digital government's current states in relation to governmental information access and provision for citizens, with a specific focus on seniors' program and service information. Further, I must reiterate that my employment with the Alberta government in information delivery, policy, and governmental web operations roles greatly informs my understanding of e-government's dimensions and development stages.

Digital Government: Early days and projected developments

The scope of ICT-based information and services offered during early stages of digital government is minuscule in comparison to e-government's present offerings. Nonetheless, it is important to examine e-government's early stages to decipher its original intents and anticipated end-states in order to understand the changing and growing nature of governmental information availability and information interactions.

Layne and Lee's (2001) foundational e-government development model outlines four distinct development stages of e-government progression: cataloguing, transaction, vertical integration, and horizontal integration (p. 124).

Stage one of Layne and Lee's dimensions and stages of e-government "focus[es] on establishing an online presence for the government" (p. 124). "The first stage is called 'cataloguing' because efforts are focused on cataloguing government information and presenting it on the web" (p. 125). This is the most basic stage of e-government, whereby governments simply establish an online presence for the purposes of delivering information on governmental ministries, policies, procedures, programs, and services (p. 126). In order to investigate an example of government information available through digital government at the time of Layne and Lee's model, I used the Internet Archive's Wayback Machine (2016) to get a glimpse of the Alberta government's website through a site capture taken on March 2, 2000,[5] where Alberta's (then) premier welcomes site visitors to "the virtual Alberta" (Government of Alberta, 2000). True to Layne and Lee's characterization of the catalogue stage as relatively information-sparse and technologically simple, the Alberta government website at this point contains information on Alberta's ministries, policies, boards and committees, laws, persons in government, and programs and services. Select application forms and information are available in downloadable PDF format, and the site features an "Alberta Connects" link that enables citizens to contact the government via an e-mail form. Interestingly, the Alberta Connects e-mail form still exists in the present day as an avenue for citizens to contact the provincial government.

The second stage of Layne and Lee's model focuses on electronic transactions (e-transactions), whereby internal government systems connect with online interfaces to facilitate citizen transactions with governmental departments via the web, such as online payments and renewal of government-issued identification (p.125). An examination of the Alberta government's website from a capture taken on March 10, 2005 demonstrates significant growth in the breadth

[5] March 2, 2000 is the first available screenshot of the Government of Alberta website from the 2000s.

of information offered via the Alberta government's website, as well as a greater number of downloadable PDF application forms and publications. Additionally, it appears that the Alberta government transitioned to a transactional state during this timeframe as a result of the government's implementation of an online payment system for traffic fines (Government of Alberta, 2004).

The third stage of Layne and Lee's model forecasts integrated connection and communication between federal, provincial, and civic governments (p. 130). Alberta's e-government presence has arguably reached and remained at Layne and Lee's third stage (vertical integration) over the last few years; a current example of vertical integration is evident in the Government of Alberta's (current) e-government offerings for seniors programs and services. Currently, most of Alberta's senior-specific programs and services request authorization to obtain applicants' income information from the Canada Revenue Agency to assess benefit eligibility; this authorization enables communication and the exchange of information – to the benefit of those accessing these governmental programs and services – between provincial and federal governments. The Alberta government also exercised vertical integration through collaboration with many of Alberta's municipalities for the now defunct Education Property Tax Assistance for Seniors program (Government of Alberta, 2006).

Stage Four of Layne and Lee's model suggests Horizontal Integration, which refers to "system integration across different functions in that a transaction in one agency can lead to automatic checks against data in other functional agencies" (p.133). Layne and Lee stress the facilitation of "one stop shopping" for the citizen (p. 133), and "integrating government services across different functional walls (or 'silos')" (p. 132). While Alberta currently has one-stop shops for older adults via in-person and telephone channels, the province arguably has not achieved horizontal integration in an online capacity. Currently, a holistic, non-silo, web-based application does not exist for Alberta's seniors. While seniors can complete a single application and have their eligibility determined for a number of Alberta's senior-specific social programs, thereby submitting the bulk of their information in a single information interaction, this application does not extend to other non-senior-specific programs that may benefit an applicant. However, the Ontario government currently demonstrates horizontal integration through the Ministry of Community and Social Services' Online Application for Social Assistance (Government of Ontario, 2015). The Government of Canada has also achieved a level of horizontal integration through offering online applications, such as CPP and OAS, and information services, which are available with a My Service Canada Account (Government of Canada, 2015).

The United Nations (UN) also started to invest significant interest in the development of e-government during the early 2000s by examining the issues from a global perspective and exploring how digital government impacts and enables citizens. The UN demonstrates this through the creation of annual (later changed to biannual) e-government benchmarking reports and surveys. The UN releases its initial survey 2002, which examines e-government's 2001 landscape, with discussion and examination of key progress measurements related to e-government's ability to enable citizen's access to information and services. The United Nations' (2002) initial definition of e-government describes it in its most basic state, as "utilizing the internet and the world-wide-web for delivering government information and services to citizens" (p. 1). Each report that the United Nations releases explores varying facets of e-government, all of which are focused on implications for citizens in relation to digital government current states and future development. The 2003 Survey (unnamed) highlights the growing importance of an e-government presence as well as digital government development strategies for improving access to public services and information. The 2004 E-government Development Report, *Towards Access for Opportunity,* focuses on disparities in ICT access, e-government, and the impacts of these disparities on information access and socioeconomic empowerment. The United Nations also recognizes that the benefits of digital government are not freely or regularly accessible to all individuals (or nations). Nonetheless, as the presence of digital government and its benefits continue to grow and evolve throughout the 2000s, so do its impacts for those who benefit and those who do not.

Digital Government in the mid to late 2000s

While Layne and Lee propose four stages of e-government in relation to technological and organizational progression, digital government's growth into the mid to late 2000s reveals clear purposes about its role in relation to dissemination of information and knowledge for public consumption. Government information interactions with the business sector, via digital means, also becomes an important aspect of e-government; Scholl and Klishewski (2007) share this notion, and characterize digital government as

> The seamless integration of computer-supported government services. According to that vision, citizens and businesses alike access whatever government service they need through a single gateway (or portal), which integrates every aspect of that particular G2C (government-to-citizen) or G2B (government-to-business) transaction or interaction. By virtue of the integration, services would be more comprehensive, effective, efficient, and faster than before for both government and citizens/businesses. (p. 889)

Additionally, Andersen and Henriksen (2006) build on Layne and Lee's 2001 model through development of the PPR (Public Sector Process Rebuilding) maturity model. However, Andersen and Henriksen suggest "the major difference between the Layne and Lee model and the Public Sector Process Rebuilding (PPR) model is "the activity and customer centric approach rather than the technological capability" (p. 241). The following model focuses more on how digital government's progression impacts frontend services and information for those interacting with government services and information via an online channel.

Andersen and Henriksen argue that most governments (at the time of the article's publication) are at Phase I: cultivation. Phase I in the PPR maturity model, "can [have] elements of self-service but most often in the form of files that can be downloaded, completed, and then returned either as an attachment to e-mail or by mailing the completed form to government" (p. 242). Currently, all of Alberta's senior-specific program and service applications remain in the cultivation phase in terms of information interactions that involve either seeking or submitting governmental information. Conversely, the Government of Canada offers online applications for select programs and services, such as the Canada Pension Plan (CPP), and this arguably situates the federal government within "Phase II: extension" of the PPR model. Andersen and Henriksen characterize Phase II as having a "Web user interface [that] is targeted towards the end-users rather than other public authorities or the agencies themselves. The ambition of having a user interface for the end-users shines through the actual Web site" (p. 243). Government websites at this stage must take audience usability into account when considering how to design and present information in order to facilitate effective information seeking and navigation through government information via a website. The extension phase must, therefore, be intuitive and enabling to end-users, and offer more to citizens in terms of information interactions.

"Phase III: maturity" involves active citizen engagement with digital government, which means governments, in turn, must provide online self-service tools. In the maturity stage,

> The Web site is organized to solve problems and requests rather than presenting formal organizational structures and general information. Self-service is a key priority in this phase, and the exceptions where this cannot be completed online are clearly stated with instructions on how to proceed in analog mode. (p. 243)

Alberta's Seniors Ministry currently offers a Seniors Benefit Estimator (Government of Alberta, 2015), which is an online tool that allows citizens to enter basic information in order to obtain high-level eligibility information in relation to multiple Alberta Seniors social programs. Other e-government online information offerings in the maturity phase may include online application forms with citizens receive follow-up instructions on how to complete application completion via physical information submission of supporting documents that verify application information. At the present time, it appears that Alberta's government has not yet achieved full digital government "maturity." However, the Ontario government has arguably reached this information transactional milestone through offering a single online application for multiple social assistance programs administered by the Ontario government.

Finally, "Phase IV: revolution" places greater accountability on citizens for the submission and maintenance of information. "The Internet is not seen exclusively as a means to create increased mobility within the government. Rather, the ambition is to transfer data ownership and the orientation of data base infrastructure to the end-users" (p. 243). This stage is likely when citizens have personal accounts, such as a My Service Canada Account, which "provides convenient and secure access to view an update your Employment Insurance (EI), Canada Pension Plan (CPP), and Old Age Security (OAS) information online" (Government of Canada, 2015). Additionally, the Canada Revenue Agency (CRA) allows online tax submission as well as access to personal and business accounts where users can view copies of their tax assessments and other CRA correspondence (Government of Canada, 2016a). While there are other Alberta-based programs, primarily for students, that require electronic personal accounts for information maintenance, it appears that Alberta's seniors-specific e-government offerings are not yet at this level.

Anderson and Henriksen's PPR Maturity model places primary focus on the impacts of e-government phase progressions on citizens' interactions with governments and government information. Coincidentally, this is also the focus of the United Nations' E-Government Surveys in 2005 and 2008. The 2005 report, *From E-Government to E-Inclusion,* focuses on facilitating ICT access to disenfranchised populations due to the benefits they are not reaping as a result of reduced access to government information and services. The 2005 report states,

> Information technologies facilitate the dissemination of information and the opportunity of feedback as they promote access to government and are

> the perfect conduit for citizen-government partnership to promote public value, and therefore, inclusion. Inclusion and participation through ICTs, e-inclusion, then becomes the key tool at the disposal of a socially inclusive government…[that] promote[s]… economic and social empowerment of the citizens. (United Nations, p. 114)

The 2008 report, *From E-Government to Connected Governance,* focuses on how digital government impacts public servants' work. While this is an important area of study on its own, exploration and discussion of this focus is beyond the scope of this project; this project pays specific attention to the implications of e-government on older adults' information interactions. That said, digital government progression in the late 2000s, and its resulting research and analysis, makes significant strides in terms of defining clear purposes for expanding e-government capabilities. However, the growth in governmental information access and service delivery as a result of ICT is not a benefit to all population segments; this becomes a growing and multidimensional concern as the affordances that arise from technology forge ahead and e-government development progresses into the 2010s.

Digital Government in the 2010s

The scope of digital government in the 2010s expands and encompasses more than frontline service and information delivery. Many scholars continue to explore the growing importance and presence of e-government environments, such as Robertson and Vatrapu's (2010) review, which examines ICT's role in "support[ing] the dissemination of information and the exchange of knowledge among citizens, between citizens and their government, and among government entities." Moreover, Robertson and Vatrapu discuss the uniqueness of e-government practices in comparison to e-commerce, the notion of digital citizenship as enabled through e-government implementation and practice, the growth of e-government, and, finally, persisting public challenges associated with digital government such as “access inequities, trust, power, and civic identity” (p. 318).

Shareef, Archer, and Dutta (2012) summarize e-government as “the use of technology to enhance the access to and delivery of government services to benefit citizens, business, and employees” (p. xv). This work explores the global adoption of e-government, including its vision, mission, and objectives, while also examining the strategic development of digital government, the impact of its implementation on financial markets, and survey results on citizens’ perspectives on the adoption of e-government initiatives and practice.

More recently, Veit and Huntgeburth’s *Foundations of Digital Government* (2014) introduces “fundamental aspects of digital government” (p.14) including the goals of digital governments, the impact of digital governments, the digital divide and its influence on digital government, legal aspects tied to digital government service and information delivery, and the benefits of digital government implementation with respect to citizen involvement in government, politics (e-voting), business (e-procurement) and society (e-participation). Digital government is thus a highly multifaceted concept, and Veit and Huntgeburth suggest that its goals include

> Transform[ing] the relationship between government and society in a positive manner. By using ICT, government can modernize public service delivery and promote more citizen engagement in politics. As a consequence, digital government has the potential to change the relationship in such a way that people view government as more accessible, participatory, responsible, transparent, responsive, efficient, and effective than before. (p.8)

Key growth factors in e-government during the 2010s include an increase in web and information interactions not only between governments and business and industry for commercial purposes (which is not a facet of e-government explored in this research study), as well as increased opportunities for citizen participation – that is, those with access – through e-government channels. Additionally, both the Alberta and Canadian governments have active presences on social media; for example, most – if not all – provincial and federal ministries have Twitter handles, which, in some cases, serve as a critical means of information and communication between governments and the public. Many politicians also facilitate information interactions with the public through use of personal or professional Twitter accounts, which are typically verified[6] by Twitter. This opens another avenue for citizen participation, communication, and information dissemination, but only for those on the "right" side of the digital divide, which refers to those who not only have access to these ICT tools, but also know how to effectively participate in this medium; those who are not connected are essentially disenfranchised from this aspect of digital government. Veit and Huntgeburth (2014) also acknowledge the importance of social media as an aspect of e-government, as they suggest,

> Today, citizens have additional political channels. For example, social networking websites have created new ways to socialize and interact over the internet. A possible consequence of inequalities regarding access to ICT is that groups who are disadvantaged lost influence in the political discourse. (p. 47)

Furthermore, the Alberta and Canadian governments now offer a greater number of online services than in previous years, including online applications and other informational and transactional functions (discussed in previous sections) for public and organizational benefits.

The UN further demonstrates the growing global presence and importance of digital government with the 2010, 2012, and 2014 Global E-Government Surveys. The 2010 survey, *Leveraging E-government at a Time of Financial and Economic Crisis*, has a vastly different focus than previous or future surveys, and primarily focuses on "the ways in which e-government can be leveraged to mitigate the effects of the financial and economic crisis on development" (p.1).

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[6] A verified Twitter account confirms authenticity of the Twitter account holder's identity. Many high profile public figures have verified Twitter accounts (Twitter, 2016).

However, the acknowledgement of "e-government as a way of realizing the vision of a global information society" (p. 1) is of key importance in this report. The 2012 survey, *E-Government for the People*, returns the focus to e-government and public service and information delivery. Vital discussions in the 2012 survey explore progress in online service delivery (pp. 37-53), and e-government's role in facilitating a comprehensive flow of services and information between governments and citizens (p. 37). The 2012 survey also dedicates a chapter to the bridging the digital divide to improve opportunities for citizens' access to the information and service benefits offered through digital government (pp. 87-99).

The most recent survey, *E-Government for the Future We Want* (2014), provides an evolutionary examination on issues including the changing benefits and impacts of digital government, progress in governmental online service delivery, the role of e-government in citizen participation and empowerment, and the growing impacts of the digital divide on e-government access and use. The ongoing publishing of these surveys by an influential organization like the United Nations, and the growing body of work that continues to persist surrounding e-government and its many facets, demonstrate that digital government's role in information and service delivery continues to grow in significance, and is here to stay.

Digital Government and the Digital Divide

Acknowledgement of the inextricable relationship between the digital divide and digital public service delivery – which includes the delivery of critical governmental information – is also receiving more attention as governments strive to enhance and expand the information and services available to citizens via the web. While increasing the access to government information and services is a critical step in progressing e-government, it is also important to remember that many populations who need access to information on public services are also those who are digitally disadvantaged. This is a sentiment echoed by Veit and Huntgeburth (2014), who suggest, "many of the disadvantaged groups are among those who rely most heavily on the support of public services" (p. 46). Veit and Huntgeburth further reiterate,

> Digital public service delivery allows citizens and businesses to access public services from anywhere 24 [hours] a day. Thereby, users can benefit from significant cost and time savings… However, only clients who have access to ICT and are able to conceive the technical terms of the public sector domain can exploit the opportunity to access and use digital public services…Therefore, [governments] always have to maintain traditional service delivery for disadvantaged groups who are unable to access digital content and services. (p. 46)

The United Nations is also paying an increasing amount of attention to the digital divide and its impact on digital public service delivery. The UN's 2012 E-government survey, *E-government for the People*, dedicates a full chapter of the survey to exploring how the digital divide affects access to and use of digital government information and services. The UN's 2014 survey also touches on the digital divide, its policy implications for digital government, and efforts that need to happen at the policy-making level to help in bridging the divide. The survey suggests,

> From a policy standpoint, efforts at bridging the digital divide must be broad-based across the policy spectrum and include government leaders at the highest levels. At the national level, it is important to provide policies that are aimed at equal opportunities for ICT access and inclusion. (p. 140)

Concentrated efforts to bridge the divide will arguably maximize the audiences that can benefit from e-government service and information delivery. That said, while governments continue to grow their e-government presences, it is important that traditional forms of governmental information and service delivery are not eliminated. Veit and Huntgeburth also acknowledge this, as they suggest, "public administrations who wish to offer digital services have to realize that they have to maintain traditional service delivery for disadvantaged groups such as elderly, low-income, or low-educated people" (p. 48). Interestingly, one of the disadvantaged groups Veit and Huntgeburth list is the elderly; the next and final section of the discussion on e-government explores the relationship between e-government and older adults.

Digital Government and Older Adults

The growth in digital government arguably means all groups that access government services and information will inevitably interact with e-government channels at some point. While we cannot simply generalize the experiences of older adults in relation to digital information and services, it is no secret that older adults have not come of age with technology touching every aspect of life to the degree that younger demographics – particularly Millennials – have; therefore, older adults may not have the same comfort levels or experiences in navigating technology for information or service purposes. Choudrie, Ghinea, and Songonuga (2013), suggest, "this mode [referring to digital government] of public service delivery may *force* many older adults to either engage with technology or be cut-off from modern society" (p.418).

Interestingly, Becker (2005) suggests that older adults' use of the web for e-government purposes is growing, and in some cases, the web might present the best option:

> For many older adults, the Web may be the only viable option of accessing e-government resources. Older adults are increasingly using government resources for self-diagnosis and treatment of illnesses. They are also going online to file taxes, vote, obtain social services, and voice their opinions. (p. 104)

While it is not clear whether Becker is suggesting that information of the aforementioned nature is generally only found on the web, the suggestion of the web as a beneficial medium to find and interact with this kind of information is apparent, especially if one is dealing with mobility or health issues that present challenges with getting information via traditional means such as over the phone or in person. When considering public services offered through digital government, it is therefore essential to consider the links between population segments that typically access government services and their positioning in relation to the digital divide.

Conclusion

This literature review presented key research pertaining to this study's investigation in order to shed light on the research space in which my study is situated. An overview of human information behaviour examined the overall concept of human information behaviour and explored the associated concepts of information need, proxy information seeking, general information seeking, information encountering, and everyday life information seeking. This section concluded with a brief discussion on the relationship between older adults and information behaviour. Next, I discussed the evolutionary nature of the digital divide from its origins in the 1990s to the present day, its impacts on information access and inequality, and the digital divide as experienced by many older adults. Finally, I examined the evolution of digital government in relation to information and public service delivery while paying particular attention to the intersectional relationship between digital government and the digital divide. I concluded the literature review by exploring some of the implications that the digital government will have on older adults' governmental information interactions.

CHAPTER 3
RESEARCH METHODS

Achieving an understanding of older adults' experiences with governmental information calls for a qualitative investigation, as "qualitative research is designed to explore the human elements of a given topic, where specific methods are used to examine how individuals see and experience the world" (Given, 2008, p. xxix). This chapter explores the following: the study design's guiding research paradigm; ethical considerations; data collection and analysis methods; the study's sample population; sampling and recruitment strategies; study limitations; data collection and analysis methods; theoretical saturation and informational redundancy; and, practices of rigor within this qualitative research study.

Guiding Paradigm and Research Questions

Engaging in a qualitative approach to this investigation is most effective since qualitative approaches "explore new phenomena and…capture individuals' thoughts, feelings, or interpretations of meaning and process" (Given, 2008, p. xxix). This approach suits this research investigation since the ultimate goal of the study is to achieve a comprehensive understanding of how older adults experience governmental information interactions. Moreover, the interpretive nature of the study's investigation calls for engagement in a Constructivist approach to data collection and analysis; I engage in this approach through conducting in-depth qualitative research interviews and espousal of a Grounded Theory analytical approach in order to investigate the following research questions:

1) How do older adults find information on governmental programs and services?
2) What are some of the factors that prompt older adults to seek information about governmental programs and services?

3) How do older adults feel about the available options that governments make available for both governmental information sharing and information submission?
4) What do older adults reveal about the nature of their governmental information interactions and the associated information retrieval methods and tools?

Engaging in a constructivist approach to qualitative research involves emphasis of "participant observation and interviewing for data generation as the researcher aims to understand a phenomenon from the perspective of those experiencing it" (Constantino, 2008, p. 119). As such, active and effective listening skills, open discussion with participants, and confirmation from participants that my interpretations of their experiences is correct is essential in achieving an accurate understanding of participants' governmental information interactions. Moreover, meaning and interpretation of these experiences is "co-constructed with… participants through mutual interaction within the research setting and dialogic interaction through researcher-initiated data generation efforts" (p. 119), while reinforcing a need for interpretive inquiry (Smith, 2008), which "focuses on understanding (interpreting) the meanings, purposes, and intentions (interpretations) people give to their own actions and interactions with others" (p. 459).

Research Ethics

Adherence to "ethical and governance requirements can play a significant role in ensuring the safety of research participants" (Silverman, 2010, p. 180). As such, the research plan for this study was reviewed and approved by the University of Alberta's Research Ethics Board 1 (REB 1) to ensure that participants and data "[met] requirements of the current *Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans*, University policy, as well as provincial, federal and other legislation and regulations, as applicable" (University of Alberta, 2015). Research ethics guidelines were adhered to throughout this study through engagement in informed consent, maintenance of participants' confidentiality and anonymity, and consultation with the Research Ethics Office in cases where I needed procedural clarification.

Informed Consent

Informed consent is a critical part of helping study participants, and the people and organizations that helped raise awareness of this study, to understand the goals of this research and role of participants who opt to take part in this study. All study participants as well as organizations that approved requests to display study posters were given a copy of the study's in-depth informed consent letter (refer to Appendix Three); this letter explains the purpose of this study and provides contact information for myself, my thesis supervision team, and the University of Alberta's REB 1 in addition to "information about the purpose, methods, demands, risks, inconveniences, discomforts, and possible outcomes of research, including whether and how the research results might be disseminated" (Israel & Hay, 2008). Every interview started with participants and I discussing the informed consent letter in its entirety; this approach allowed for open dialogue about this study's intent, my roles and responsibilities in conducting this research, and the roles and rights of research participants within this study. Participants gave verbal consent to participate in this study, which is captured on audio transcripts of interviews. Moreover, participants were encouraged to ask questions or contact me, my thesis supervision team, or REB 1 at any point if they had questions or concerns about this study, research ethics, or the research process.

Confidentiality and Anonymity

Interviews occurred in private spaces, such as meeting rooms, within public settings, such as public libraries and local seniors' organizations.[7] This

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[7] Seniors' organizations refer to public centres that offer with services and supports tailored to seniors such as information, outreach, and assistance services as well as social and recreational activities. (Government of Alberta, *Directory of Seniors' Centres in Alberta*, p. ii).

approach facilitates personal, open, and confidential discussions while allowing for the safety of being in a public setting. However, participants were advised that visual privacy could not be guaranteed in cases where discussions occurred in rooms with windows, which is often the case at public libraries or seniors' centres. Participants in these cases expressed no objections.

Pseudonyms are assigned to all participants in place of their real names in this thesis and any future research report intended for public presentation, and I am the only person with access to participant information due to my role of principal investigator (and sole researcher) in this study. Moreover, research documents and notes that contain participants' names and other contact information are securely locked a personal filing cabinet in which I am the only key holder, and electronic files, such as interview audio recordings, are stored within my personal space on the University of Alberta's secure server.

Destruction of research data is also the responsibility of the researcher, and, as per research ethics guidelines, I will destroy interview data at the five-year mark following completion of the study.

Sample Population

The crux of this study's purpose is to understand the governmental information interactions and experiences of older adults. As such, the nature of the research questions warrants recruitment of a very specific participant population: seniors. I met with ten older adults, age sixty-five or older (and who were fluent in English), between September 2012 and December 2012 to engage in research interviews. A minimum participation age was set at sixty-five because this is the age that the Government of Alberta and the Government of Canada legally defines as a senior (Kembhavi & Elections Canada, 2012; Statistics Canada, 2007; Alberta's *Seniors Benefit Act*, 1994, p. 2). Moreover, this is also the age of eligibility for governmental programs and services for seniors such as the City of Edmonton Transit's reduced fares for seniors, the Government of

Alberta's Seniors Financial Assistance programs, and the Government of Canada's Old Age Security program.

Sampling Strategies and Participant Recruitment

Purposive / Purposeful Sampling[8]

Choosing a sampling approach to facilitate effective recruitment of the necessary study population is imperative. Moreover, the in-depth nature of qualitative inquiry enables researchers to focus on "relatively small samples, even single cases ($N = 1$), selected *purposefully*" (Patton, 2002, p. 230). Purposive sampling is, therefore, a beneficial approach for this study's investigation due to the fact it is "virtually synonymous with qualitative research" (Palys, 2008, p. 697). Moreover, the decision to collect data via in-depth, semi-structured interviews with a small sample of older adults fits cohesively with the goals and purposes of assuming a purposeful sampling approach as outlined by Patton (2002):

> The logic and power of purposeful sampling lie in selecting *information-rich cases* for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of inquiry, thus the term *purposeful* sampling. Studying information-rich cases yields insights and in-depth understanding rather than empirical generalizations. (p. 230)

Various sampling approaches fall under the broad umbrella of purposive sampling such as criterion sampling, maximum variation sampling, and snowball sampling. I discuss these sampling strategies in the next section.

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[8] I use the terms purposive and purposeful interchangeably with respect to sampling. My reason for this is that some scholars characterize this approach as purposeful, while others refer to this kind of sampling as purposive. Patton (2002) reiterates the interchangeable nature of these terms in his assertion that, "Purposeful sampling is sometimes called *purposive* or *judgment* sampling" (p. 230).

Criterion Sampling

The nature of this study's investigation warranted recruitment of a specific demographic to comprise the study's participant sample – seniors – in order to facilitate collection of data pertinent and relevant to this investigation. Liamputtong and Ezzy (2005) characterize criterion sampling as an approach where "all cases that meet a set of criteria are selected. In criterion sampling it is important to select the criteria carefully, so as to define cases that will provide detailed and rich data relevant to the particular research problem" (p. 47). Criterion sampling informs recruitment practices because it was critical to raise awareness of the study in physical or online settings that focus on serving older adults. As such, participant recruitment occurred in a number of ways: through in person, print, and electronic means.

In-person recruitment activities occurred through brief presentations of the research study to various seniors' social groups such as a seniors' social support group meeting at a community church and an Edmonton Public Library (EPL) book club meeting.

The study's promotional research poster (refer to Appendix One) appeared in both print and electronic seniors' centre publications (such as monthly newsletters), and through displaying the promotional poster on organizational bulletin boards at seniors' centres and EPL branches across Edmonton.

Seniors' organizations that I approached to request placement of my research study advertisement were selected through use of the Government of Alberta's *Directory of Seniors' Centres in Alberta* (2014). The *Directory* includes centres that meet specific criteria, being "not-for-profit and offer[ing] at least one on-going service or activity designed for seniors" (p. i), and provides a comprehensive breakdown of seniors organizations by city.

Organizational staff such as librarians, social workers, outreach workers, and administrative personnel approved my requests to display the study's research poster on bulletin boards within seniors' centres and EPL branches. The research study was also advertised in monthly print and online newsletters distributed by local seniors' organizations; in some cases, payment toward advertising charges was required. Moreover, outreach workers, social workers, and EPL librarians also helped me to connect with senior-focused social groups (such as a seniors' support group and an EPL book club), which gave me the opportunity to discuss my research in person and distribute research poster handouts to potential participants.

I chose to employ a criterion sampling approach due to its methodological alignment with selecting study participants that met specific criteria, such as age. However, it is also important to acknowledge that my goal was to meet older adults from various walks of life with differing perspectives and experiences. Therefore, a maximum variation sampling approach was also necessary in order to achieve recruitment of a broad socio-economic sample of seniors.

Maximum Variation Sampling

While age-related recruitment specifications were set, I still hoped to receive interest and response from seniors of varying socio-economic and professional backgrounds. Liamputtong and Ezzy (2005) characterize maximum variation sampling as "a sampling strategy that aims to select cases that provide for wide variations in the experience or process being examined" (p. 46). While participation criteria outline specific parameters tied to age and fluency in the English language, I did not place further limitations on recruitment in order to elicit response from a disparate set of individuals. I took a multi-faceted approach to study advertisement (previously discussed) with the goal of achieving response from a wide variety of local older adults.

Snowball Sampling

A snowball sampling approach was also employed for recruitment of research participants. This sampling approach is effective for "locating information-rich key informants or critical cases" (Patton, 2002, p. 237). Further, snowball sampling allows for "an initial respondent, or group of respondents… to suggest other people who may be willing to participate in the research" (Liamputtong & Ezzy, 2005, p. 47). While some research participants voluntarily shared the study's advertisement poster with their friends or colleagues, and a number of professional acquaintances voluntarily distributed the advertisement poster to potential participants and persons who may know of eligible study participants. However, ensuring voluntary participation was of utmost importance to me, so I made sure that those who distributed the study's promotional poster on my behalf did not connect me with potential participants. This is because it was important that any individuals who contacted me to participate did so as a result of their personal choice.

Recruitment Challenges

I faced a number of challenges during the recruitment process. I took a multi-pronged approach to recruitment through in-person, print, and online advertisement of the research study with the hopes of garnering response from a disparate set of participants. I also hoped that advertising in various media would minimize potential barriers of access to the research study's advertisement poster. Some of the challenges I encountered were a result of financial limitations as this research study was completely self-funded. Personal income was used to incur all costs associated with this project, which placed significant limitations on the depth of public advertising I could pursue due to the high cost of ad placement. For example, I hoped to advertise in a high circulation newspaper called *The Edmonton Senior* because this publication reaches a wide local audience; however, I simply could not afford to incur the cost of ad placement.

I also encountered a potentially rare challenge with respect to study advertisement: a local and significant seniors' organization made editorial and contact information changes to the REB-approved promotional advertisement I submitted for their monthly newsletter (refer to Appendix One). The organization did not advise me of the changes prior to press time, and, unfortunately, the content and purpose of my message was altered in a way that inaccurately advertised the purpose of this research. I rectified this matter as soon as it came to my attention through contacting the seniors' organization and having the altered advertisement pulled from the publication before the seniors' centre's mass distribution for that month. Additionally, I promptly notified the University of Alberta's REB 1 administration and my thesis supervision team about the erroneous advertisement, and I outlined the steps I took to minimize its dispersal. Unfortunately, I could not find many online information channels where I could raise awareness about this research study. However, the ability to locate more online channels or publications, the ability to incur the costs to of ad placement in *The Edmonton Senior*, and more extensive in-person outreach and presentations at settings such as seniors' residences and organizations may have helped with recruitment activities.

Study Limitations

Project recruitment activities were limited to Edmonton, Alberta in the interests of maintaining a scalable recruitment timeframe, working within budgetary constraints, and maintaining a body of work within the scope of a Master's thesis. Examining the governmental information interactions of ten older adults in Edmonton, alone, required significant time and financial investment due study advertisement costs to support recruitment activities, room rental fees to facilitate interview privacy, project-specific telecommunications costs, and administrative costs such as printing and supplies. Additionally, restricting recruitment to a small sample from an urban centre and government-centric city such as Edmonton potentially decreases the experiential scope of data gleaned from participants' information-seeking accounts; the impacts of, for example, rural governmental information-seeking experiences, race and social class differences, and the presence of language barriers are not viewpoints that are accounted for in the present research.

Data collection

In-depth Semi-Structured Interviews

Siedman (1991) suggests "the root of… interviewing is an interest in understanding the experience of other people and the meaning they make of that experience (p. 3). A sample size of ten participants warrants in-depth exploration of the research questions. It is especially critical that, with a sample size this small, participants have the opportunity to comprehensively discuss their experiences. As such, research data were collected through face-to-face, in-depth, semi-structured qualitative research interviews. Brinkmann (2008) describes interviews as a "conversational practice where knowledge is produced through the interaction between an interviewer and an interviewee… to obtain knowledge about a given topic or some area of human experience" (p. 470). Approaching interviews in a semi-structured, conversational manner helps to create a reciprocal and comfortable rapport between the interview and research participants. Moreover, I strove to create the kind of interview dynamic that Hesse-Biber and Leavy's (2006) describe as

> A particular kind of conversation between the researcher and the interviewee that requires *active asking* and *listening*. The process is a meaning making endeavor embarked on as a partnership between the interviewer and his or her respondent. The degree of division between the two collaborators is typically low, as researcher and researched are placed and the same plane, though variations occur. (p. 119)

Active asking and listening are also essential when conducting effective member checks with participants during the interview process; member checking is important as this process helps to ensure that interpretation of participant responses is correct and aligns with participants' intended meanings.

A guided approach to interviewing is also essential in ensuring that interview discussion remains contextual and on track. As such, I created an interview guide (refer to Appendix Two) that contains a specific list of open-ended questions that participants and I explored in each interview. Having an interview guide was critical in a semi-structured interviewing environment because the guide "[ensured] that the same basic lines of inquiry are pursued with each person interviewed" (Patton, 2002, p. 343), while helping "to make interviewing a number of different people more systematic and comprehensive by delimiting in advance the issues to be explored" (p. 343). While open conversation was encouraged during the interview process, the interview guide was helpful in steering interview discussion toward the research topic in situations when tangential or extraneous conversation arose. However, the occurrence of tangential conversation is not surprising – and the researcher should arguably expect this – because "the researcher retains some control over the direction and content to be discussed, yet participants are free to elaborate or take the interview in new but related directions" (Cook, 2008, p. 422).

Moreover, asking open-ended questions is vital in establishing a conversational structure that allows participants to share a complete version of their experiences. Roulston (2008) suggests that open-ended questions provide participants with "the opportunity to choose the terms with which to construct their descriptions and highlight the topics that [were] meaningful to them" (583). While this interview structure is effective for learning about participant experiences, it posed challenges when conversation veered into tangential directions despite the use of an interview guide. This interview structure also presented challenges during the data analysis process because answers to research questions were often embedded within a significant body of dialogue that was otherwise extraneous to the line of inquiry.

Nonetheless, this data collection approach provides participants with freedom to respond to open-ended research questions in the ways they feel best reflect their experiences and relationship to this issue of governmental information. Olson (2011) suggests a number of strengths in qualitative interviewing for data collection and exploration of research questions due to this method's use of "conversation as a central tool for obtaining knowledge about others, how they experience the world, how they thing, act, and feel" (p. 9).

Ultimately, it is important accurately understand participants' experiences and governmental information interactions, and engagement in this interviewing structure enables participants to fully share their experiences.

Interviews were recorded through use of the iPod and iPhone application Voice Memo. Interview transcription was started through use of an application called MacSpeech Scribe; I verified accuracy automated transcript content through manual transcription of interview dialogue after MacSpeech Scribe completed the first draft of transcripts. Interview durations ranged from approximately one to two hours.

Data Collection: Fieldnotes

Fieldnotes were captured before, during, and after research interviews; I use fieldnotes to supplement data collected from research interviews. These notes are useful in providing an "account of observations and impressions" (Brodsky, 2008, p. 341), and capturing non-verbal communication that occurs during interview discussions, such as body gestures or facial expressions, that ultimately help in clarifying participants' intentions. In some cases, I record field notes prior to interviews, such as in my initial telephone contact with participants if they shared reasons for their interest in study participation. Field notes include recordings on my "thoughts, impressions, initial ideas, working hypotheses, issues to pursue, and so on" (Schwandt, 2007, p. 115). I also refer to fieldnotes during the analysis process as "a kind of evidence on which [I could] base claims about meaning and understanding" (p. 115) of experiences that participants shared with me during research interviews.

Data Analysis

Grounded Theory

Grounded Theory, according to Charmaz & Bryant (2008), "refers simultaneously to a method of qualitative inquiry and the products of that inquiry" (p. 374). This analytical method

> Contains tools for analyzing and situating processes. Thus, the logic of grounded theory leads to (1) defining relevant processes, (2) demonstrating their contexts, (3) specifying conditions in which these processes occur, (4) conceptualizing their phases, (5) explicating what contributes to their stability and/or change, and (6) outlining their consequences. (Charmaz, 2011, p. 361)

Following these steps informed my analytical process and provided me with an awareness of how to approach analysis within a grounded theory framework. As such, I paid careful attention to identifying and analyzing relevant and recurring factors that prompt and impact participants' governmental information interactions. An essential component of grounded theory as an analytical approach is the practice of coding research data. This was my first step in conducting analysis on interview data.

Grounded Theory: Coding

Grounded theory analysis involves in-depth coding of research data because coding functions as "the pivotal link between collecting data and developing and emerging theory to explain these data. Through coding, you *define* what is happening in the data and being to grapple with what it means" (Charmaz, 2006, p. 46). Charmaz further suggests that

> Grounded theory coding consists of at least two main phases: 1) an initial phase involving naming each word, line, or segment of data followed by, 2) a focused, selective phase that uses the most significant or frequent initial codes to sort, synthesize, integrate, and organize large amounts of data. (p. 46)

Interview data went through multiple iterations of coding; this is because I engaged in progressive coding approaches because comparative and prominent themes in participants' discussions became apparent after initial analysis. Initial coding of research transcripts involved line-by-line close readings in order to draw out key and recurring words, ideas, phrases, sentiments, and contextual situations as described by research participants. Initial codes then served as launching points for development of focused codes during subsequent coding sessions; this is due to the notion that "initial codes are provisional, comparative, and grounded in the data" (p. 48).

Once initial codes were established, I engaged in a focused coding process, which Charmaz (2006) summarizes as "using the most significant and/or frequent earlier codes to sift through large amounts of data," upon completion of the initial coding process. This process required a slightly different approach than initial coding, because "focused coding requires decisions about which initial codes make the most analytic sense to categorize your data incisively and completely" (p. 57). The initial coding process yielded many codes, and part of the focused coding process involved determining which initial codes were synonymous, the codes that were related to and/or dependent on each other, and the codes that could potentially develop into axial codes, which serve to "relate categories to subcategories," while "[specifying] properties and dimensions of a category" (p. 60). My focused coding process was inextricably linked to the process of iterative memo-writing (Charmaz, 2006). As such, memo-writing and focused coding were done simultaneously.

Grounded Theory: Memo-writing

"Memo-writing constitutes a crucial method in grounded theory because it prompts you to analyze your data and codes early in the research process" (Charmaz, 2006, p. 72). While the format of memo-writing is fairly flexible, the ultimate result of using memos as an analytical tool is that memos

> Give [the researcher] a space and place for making comparisons between data and data, data and codes, codes of data and other codes, codes and category, and category and concept and for articulating conjectures about these comparisons. (p. 73)

Memo-writing helped me to explore both initial and focused codes in order to determine the scope, context, complexity, and meanings surrounding each code.

My memos vary in length and development due to the nature of codes and where each code is situated in relation to others that arose from the data. Additionally, memo-writing was a very iterative process, much like coding, due to the fact that further exploration of each code, category, and idea sometimes requires repositioning or reclassification of codes and categories; this was particularly the case in this study when initial codes were found in multiple initial categories. Nonetheless, subsequent memo-writing facilitated clarity in understanding code meanings, codes contexts, and code categories that emerge directly from interview data.

Data Saturation and Informational Redundancy

Ten older adults were recruited through purposeful sampling (discussed in *Sample Population and Participant Recruitment: Age 65+* section) due to the specific sample population required to investigate the study's research questions. My initial recruitment goal was to conduct in-depth interviews with fifteen older adults because this number is generally "appropriate for saturation of themes during [qualitative] analysis" (Saumure & Given, 2008, Data Saturation, p. 195); However, I was not able to recruit fifteen participants as a result of the many challenges I faced during the recruitment stage (see *Recruitment Challenges* section). Nonetheless, each in-depth research interview yields significant and comprehensive sets of information, and overall informational redundancy (Sandelowski, 2008, Theoretical Saturation, p. 875) is reached in accordance with the scope of this research project. That said, the emphasis and analytical focus of qualitative data "[is] on quality rather than quantity," and "the objective [is] not to maximize numbers [of participants for data gathering] but rather to become 'saturated' with information on the topic" (Bowen, 2008, p. 142). Additionally, generating statistical data was not a research goal in this study; therefore, the study's small, but specific, participant sample population aligns with Saumure & Given's (2008) notion that

Saturation may be achieved more quickly if the sample is cohesive (e.g., if

> all participants are members of a particular demographic group). In this case, one is not trying to make the theory transferable to the general population, where great variability is likely to exist and more sustained data collection may be needed. Second, theoretical sampling is key to achieving saturation quickly. Here research participants are selected so that the resulting data help to build and validate the emerging theory. (Data Saturation, p. 196)

As such, intensive analysis of data from a relatively small, albeit comprehensive, sample size meets saturation levels in accordance with the project scope. This is not uncommon in in-depth qualitative studies because “the tighter and more restrictive the sample and the narrower and more clearly delineated the domain, the faster saturation will be achieved” (Morse, 1995, p. 148).

Rigor and Quality in Qualitative Research

Saumure & Given (2008, Rigor in Qualitative Research) suggest that a rigorous qualitative study is built on the notions of transparency, credibility, dependability, comparativeness, and reflexivity (pp. 795-796). Hiles (2008) advises that transparency, at the basic level, involves exercising “clarity and thoroughness” when approaching and “writing up research and the presentation and dissemination of findings” (p. 891). Hiles also stresses the importance of “conscious examination of paradigm, assumptions, research strategies, selection of participants, and decisions made in collecting and interpreting the data, pointing to the fact that the researcher has a participatory role in any inquiry” when “planning, designing, and carrying out research” (p. 891).

At the start of each research interview, participants and I discussed the study’s informed consent letter (refer to Appendix Three); this gave me the opportunity to share my personal relationship to the research as a result of my previous employment with Alberta Seniors. I acknowledged my experience with governmental information delivery on seniors’ social programs and how this could likely impact interview discussions. However, I also recognized the importance of striking a careful and measured approach to how I could respond to participants' inquiries; this is because it was critical that I maintain confidentiality of information that I had access to during my employment within Alberta Seniors. I identified this as a potential conflict of interest on my research ethics application, and I mitigated this potential conflict in a number of ways. I engaged in discussions with the senior managers that I reported to at Alberta Seniors to make assurances that confidential government business would not be discussed during my research interviews. I also provided assurance that recruitment activities of any kind would not occur at my work location or during working hours. Moreover, I conducted an in-depth review of publicly available information and resources on seniors programs on the Alberta government's website. I kept track of this information and ensured to stick within the parameters of this information when fielding questions from participants about provincial seniors programs and their policies. Ensuring transparency and how to engage in transparent research practices also involved self-reflection about the research process, consultation with my thesis supervision team, the University of Alberta Research Ethics Board 1, and organizations that allowed display of my study's promotional poster, as well as open communication and informed consent with all research participants.

Credibility is also essential in rigorous qualitative study. Jensen (2008, Credibility) characterizes credibility as "the methodological procedures and sources used to establish a high level of harmony between the participants' expressions and the researcher's interpretations of them" (p. 138). An accurate understanding of participants' experiences is essential in this process. As such, I went through the process of member checking during research interviews or, in other words, respondent validation (Sandelowski, Member Check, 2008, p. 501). Member checking involved verbally asking "participants to elaborate on or clarify what they…said… and then ask participants to comment on the accuracy of these summaries" (Sandelowski, Member Check, 2008, p. 501). Engaging in this process helped me to fully and accurately understand participants' responses. Jensen (2008, Credibility) recommends that researchers consider the following questions when assessing research credibility: “Were the appropriate participants selected for the topic? Was the appropriate data collection methodology used? Were participant responses open, complete, and truthful?” (p. 138).

Member checking, and its contribution to credibility, also supports dependability in a qualitative research; credibility and dependability share an inextricable link as both factors contribute to research transparency. Jensen (2008, Dependability) suggests, “dependability in a qualitative study recognizes that the research context is evolving and that it cannot be completely understood a priori as a singular moment in time” (p. 208). For example, study results would presumably differ from current results if this same study was conducted either ten years before or after the current research due to factors such as generational differences in experiences among varying generations of older adults, social and technological advances, and digital government evolution. Nonetheless, “results should be consistently linked to revealed data and that the findings should be an accurate expression of the meanings intended by the participants” (p. 209).

Study data are analyzed through employment of a constructivist grounded theory approach. As such, comparative analysis of data from each interview played a significant role in the production of research results. Mills (2008) advises that

> Comparison can take place between different entities, such as individuals, interviews, statements, settings, themes, groups, and cases, or at different points in time. These entities or time periods are then analyzed to isolate prominent similarities and differences, a process that is described by the term comparative analysis. (p. 101)

Analysis and discussion in this study strongly focuses on the prominent and recurring themes that arise across participant discussions.

Finally, ensuring self-reflexivity throughout this process serves as a means of “continuous examination and explanation of how [I] have influenced [this] research project” (Dowling, 2008, p. 747), but also through “[embracing] the reciprocal nature of the researcher-participant relationship” (Dowling, 2008, p.747). Engagement in self-reflexive practices includes my disclosure of to my personal relationship to the research and potential implications of this to all stakeholders related to this research, such as participants, supporting organizations, Alberta Seniors management, and REB 1. Moreover, self-reflection during the research process is a continual process; after each interview took place, I considered the efficacy of the interview, the dynamic between myself and participants, factors that worked during the interview, and areas for improvement in future interviews (such as keeping discussion on track). It was important to me to maintain a reciprocal relationship with research participants during the interview process. While power dynamics were somewhat inevitable in some respects in terms of who was driving the conversation, I made every effort to facilitate an egalitarian dynamic during interview discussions by ensuring participants could freely discuss their experiences, even in cases where this meant that interview conversation temporarily steered off track. Research participants and I, therefore, "[became] partners in [this research] endeavor, and [I shared] my own experiences and reflections to illuminate important meaning" (Dowling, 2008, pp. 747-748).

Conclusion

This chapter examines the study's research design through discussing the following: the study's guiding research paradigm; ethical considerations such as informed consent and maintenance of participants' confidentiality and anonymity; the study's sample population of older adults age sixty-five and over; purposive sampling and recruitment strategies including criterion, maximum variation, and snowball sampling approaches; recruitment challenges; study scope limitations; data collection through in-person, semi-structured research interviews and interview fieldnotes; analysis through an in-depth grounded theory approach; theoretical saturation and informational redundancy thresholds; and, practices of rigor, such as engagement in transparency, credibility, dependability, comparativeness, and reflexivity within this qualitative research study. The next chapter, Chapter 4: Results and Discussion, presents the study's research data. I engage in a grounded theoretical approach to data analysis, while discussing the implications of study results within the context of literature presented in Chapter 2: Literature Review.

CHAPTER 4
RESULTS AND DISCUSSION

Meeting with ten local adults to learn about their governmental information interactions, through in-depth discussions, was an invaluable experience. Participants gave firsthand accounts of their journeys in obtaining the information they sought and their experiences with the information once given the chance to interact with it. This chapter examines key issues raised in participant discussions that reveal the factors that prompt governmental information seeking, the current nature of governmental information, and participants' experiences with and perceptions of the different government information channels

I start the chapter by introducing research participants and providing brief insight into their experiences with governmental information. Exploration of study results, which are derived through engagement in a grounded theory analytical approach, directly follows, where I discuss prompts that participants reveal as factors that initiate their governmental information seeking activities and the resulting information interactions. I subsequently examine the current states of governmental information and how it is presented to citizens through exploration of participants' experiences of navigating governmental channels to obtain information. Finally, I investigate implications of the three types of governmental information interactions that study participants describe: human, technological, and print. Each component of this chapter actively integrates participant viewpoints in order to effectively demonstrate the reality of the issues and lived experiences that older adults face in their governmental information searches and interactions.

Research Participants

Edward is 69 years old, and engages in both traditional and technology-driven information seeking activities. Edward takes a multi-faceted approach to information seeking activities as he uses traditional means like print resources and in-person consultation to find information he needs, as well as computers and mobile computing devices for information seeking activities.

Albert is 75 years old, and spent some of his professional life as a civil servant. Albert advises that governmental information seeking via technological means is not his first choice, and, instead, prefers information seeking via in-person or telephone channels.

Charlotte is 78 years old, and is a retired a civil servant. Charlotte uses a personal computer for some information seeking activities, but this is also a medium that she is learning to navigate. Charlotte, often times, chooses traditional information seeking processes to find the information she needs.

Bill is 83 years old, and is comfortable using technological tools to find information, specifically his personal computer. Bill's use of traditional systems for information seeking activities appears secondary in comparison to his use of the Internet and his computer when searching for information.

Jane is 68 years old, and takes a multi-faceted approach to all of her information seeking activities. Jane uses print resources, in-person channels, and the Internet to search for information. Jane is an avid information-seeker; orienting information seeking (Savolainen, 2008), particularly through daily newspapers, is part of her daily routine. The life experiences and situations of Jane's family encourage her very active information seeking and retention habits.

Klaus is 76 years old, and advises that he generally does not seek governmental information on a regular basis. However, Klaus is comfortable interacting with online and print environments for information seeking and social networking activities.

Jack is 74 years old, and is a retired civil servant. Jack expresses a preference for information seeking via online and print resources, but he also acknowledges the complexities involved in finding information online, and additionally, via telephone information channels. Jack shares that orienting information seeking (Savolainen, 2008) is part of his daily routine, and prefers to do this through print publications.

Marcel is 80 years old, and expresses frustrations in his quest to access governmental program and service information across all available information channels and resources: in-person, telephone, and online. Nonetheless, Marcel advises that online and in-person information channels, as well as print resources, all contribute to his acquisition of pertinent information.

Rose is 79 years old, and stresses the importance of community involvement and maintaining in-person social networks to facilitate effective information seeking and sharing. Engagement with print resources, publications, and in-person attendance at organizational information seminars contribute to Rose's acquisition of governmental information.

Adah is 68 years old, and is a retired civil servant. Adah seeks governmental information via in-person, telephone, and online channels, as well as through print resources. Moreover, Adah expounds on her experience with hybrid information interactions (the intersection of human and technological information provision, usually as a result of self-service information delivery), which seems to be an increasing method of governmental information distribution and collection.

The Nature of Governmental Information-Seeking: Overall Observations

Governmental information seeking is an often complex and multi-layered process, and sometimes involves simultaneous engagement with multiple information mediums: human, technological, and print. This section explores prevalent factors and situations that participants revealed as initiating governmental information interactions. Participants' experiences with governmental information uncovered key characteristics about the current states of governmental information and the nature of governmental information interactions.

Governmental Information Interactions: Prompts and Initiation

Many research participants indicated that life events, life transitions, or life planning activities were significant factors that initiated their governmental information interactions. Life events, transitions, and planning encompass:

- *Involuntary life transitions and events*: Many participants discussed essential life transitions or events that prompted them to contact government offices such as family deaths and housing needs, such as special residence requirements (i.e. assisted living, long-term care) as a result of medical situations, or homelessness. These types of life transitions and events elicit information gaps that individuals needed to close in order to effectively proceed with day-to-day activities. A number of participants specifically discussed contacting governments in an attempt to close these information gaps.
- *Experiencing life transitions or events by proxy*: Occupying the role of primary caregiver for an elderly parent, spouse, or loved one can create the experience of a life transition or event by proxy as a result of acting on behalf of the care recipient. Often, primary caregivers go through information-seeking processes and governmental information interactions in place of the care recipient due to a typical responsibility of caregivers to act in place of the person for which they advocate.
- *Financial Planning*: retirement from full-time employment or turning sixty-five years old are often linked to applying for governmental pensions and benefits such as Old Age Security (OAS), Guaranteed Income Supplement (GIS), or the Canada Pension Plan (CPP). Participants also discussed governmental information interactions as a result of inquiries about Canadian Tax-Free Savings Accounts (TFSA) and the CPP Child-Rearing Provision. Public pensions and benefits, unlike private income, are subject to fluctuations in payment amounts or contribution allowances based on governmental policy direction. Some participants made specific

reference to these income sources and the desire to specifically interact with governmental information in order to fill in these information gaps.

Involuntary Life Transitions and Events

Many participants discussed how essential life transitions or events initiated their governmental information-seeking activities and interactions. Family deaths and housing needs, such as special or new residence requirements as a result of medical needs (i.e. assisted living, long-term care) or homelessness, were situations that participants cited as prompting governmental information-seeking. While governments may not be the sole source of credible information related to the aforementioned life events, they appear to be the primary choice or starting point for information-seeking activities; I explore this notion further and suggest the need for future research on citizens' perceptions of government information as credible in Chapter 5: Conclusion.

The death of a family member results in surviving family members or estate executors tending to administrative details and estate finalization. Government offices are often contacted when executors sort out estate issues such as filing final tax returns or closing personal government-related files. Charlotte discussed a similar situation, as she revealed the primary reasons for her recent governmental information interactions were attributed to the passing of her husband:

> *I have been [accessing governmental information] lately, simply because I lost my husband here… and of course I've had to go through the whole pension thing.*

While Charlotte did not elaborate on her information experiences related to her husband's passing, she provides clear indication that her recent governmental information interactions were strongly tied to the event of losing her spouse and sorting out resulting financial matters. Family deaths and, in Charlotte's case, the passing of a spouse is an experience that many older adults encounter. The significant likelihood of older adults' income sources including publicly-administered pensions or benefits as well as the cancellation of government-issued identifications (such as Canadian Social Insurance Numbers or Alberta personal health numbers) inevitably leads to some form of governmental information interaction as a result of estate finalization activities.

Medical situations or diagnoses that lead to mandatory life changes, such as the need to relocate to an assisted living residence after living independently, is another factor that prompts individuals to seek out governmental information; the information will hopefully aid in understanding the situation while building an awareness of potential social-based programs and services. Such is the case with Rose, who stated that her experience with governmental information-seeking was highly contingent on a life-altering injury. Rose noted that she, otherwise, did not regularly seek governmental information, and never actively sought government information prior to her injury. When asked if she regularly sought or accessed provincial or federal governmental information, Rose responded, saying,

> *If you don't have any problems or issues, you can't think of, "what should I ask?"... if there's a condition, then you have a reason [to look for information] and it comes to you.*

Rose discussed her accident, which required surgery and some other life adaptations based on changes with (likely) physical mobility, as she referenced physical therapy and moving to an assisted living residence thereafter. Rose explained:

> *They do the surgery…then…you're stuck in the situation. What can you ask?...The questions come…I say every individual requires information to get themselves prepared; usually, they don't have enough… but if you get sufficient information…you're more capable of handling [the situation].*

Rose clearly indicated that a significant prompt – or problem – is needed to initiate government-specific information interactions. New knowledge – often sought through governmental information resources– is essential in order to prepare for and adapt to lifestyle changes as a result of an injury, emergency, or problem, that cause unfamiliarity or uncertainty in moving forward with new life circumstances.

The need for a specific residence type, prompting the need for information, is also a situation that Jane encountered while assuming caregiving responsibilities for her elderly mother. Jane talked about realizing the need for a new residence for her mother as a result of her mother's medical condition:

> *Where does she go, and to which home? Where does she qualify? It was hit and miss. It was like, take her here, get her kicked out because she no longer does this, and it was very, very disorganized.*

Jane goes on to discuss how this situation prompted contact with social workers and home care providers in order to ensure her mother's needs, shelter and otherwise, were met. Interestingly, the situation that prompted Jane's information-seeking was not one that Jane personally experienced herself, but, rather, Jane embarked on these information-seeking activities on behalf of her mother. I subsequently discuss and explore this study's unanticipated instances of older adults' information seeking on behalf of another person; this also known as proxy information seeking.

Living in a residence that does not suit one's needs is certainly not an optimal situation, nor is another worst-case scenario: homelessness. Marcel discussed his governmental information interactions in the context of searching for a more permanent residence. Marcel shares:

> *I've been for two weeks now, I've been homeless.*

Marcel further explained his residence needs, saying:

> *I need a place to stay, for maybe a month, where I get three meals a day, and a bed every night… a place where I can…rest my head, and get three decent meals a day, and help me get…maybe some physiotherapy.*

Marcel's discussion on his search for a more permanent and suitable shelter initiated his information interactions with social workers, local housing assistance offices, and municipal government offices as he tried to close the information gap related to his housing needs.

While Charlotte, Rose, and Marcel all discussed how personal life transitions and events prompted their interactions with governmental information, Jane also discussed her mother's need for information, and the resulting government interactions, due to a new residence requirements. Jane's role as an information-seeker on behalf of a family member is not uncommon, and it is an experience that Edward also shares. I explore this kind of information-seeking dynamic in the next section.

Experiencing Life Transitions or Events by Proxy

Transitioning into the role of primary caregiver for an elderly parent, spouse, or loved one, can create the experience of life transition by proxy. Primary caregivers, in these cases, go through the information-seeking process in place of the person who requires care in order to acquire the necessary knowledge required to deal with the circumstances (see Chapter 2 for a discussion of the relevant literature). Such was the case with Jane, who served as her elderly mother's caregiver and described the situation of her mother's deteriorating health and the resulting need for a more suitable living situation: a long-term care facility. Jane shared that discovering her mother's challenges with Parkinson's not only initiated her governmental information search, but also facilitated her acquisition of knowledge in relation to her mother's life transition.

> *My mom… was starting to have Parkinson's problems, and my…brother… called social services not knowing what to do… government… became involved and said she probably needed a caseworker, so we know about this stuff because we've done this. But to begin [information seeking]… where you begin is the problem.*

Throughout Jane's and my discussion, she continually referred to information resources and news clippings that she had accumulated due in part as a result of working through her mother's situation and seeking problem-specific information on her mother's behalf. Jane's experience in searching for information to help her mother had prompted Jane to proactively collect information about issues that

Jane and her husband may potentially face in future years, such moving to an assisted living facility to due to one's healthcare needs. Jane said:

> *That's why we know anything, because we've done it once [before]…We're just lucky in many ways. We learned with my mom. I'm sorry for her, but it did help us, all of us… 'cause [we] see what happens… we…did it though my mother, but that shouldn't be how it happens.*

Similarly, Edward talked about some of the caregiving assistance he provided for his father-in-law, who was gradually losing his sight and hearing capabilities. Edward explained:

> *I'd say to [my father-in-law], "well, you know we can get you a hearing assist," or something, and then we tried to deal with Veteran's Affairs around these hearing issues.*

During our discussion, Edward reflected on his father-in-law's loss of hearing and sight, and the process of navigating the federal information pathway related to Veteran's Affairs. He related this situation back to himself, as he noted:

> *I've watched my parents, my in-law parents and my birth parents, both of them, as they aged. They lost some of their acuity, and I sense that's happening to me, too.*

While the information channels that Edward navigates may differ from those he had to work through when attaining information for his father-in-law, it is likely that Edward has an idea of various programs and services – government-based or otherwise – that may help in this type of situation. The information Edward acquired through this kind of experience will potentially help him as he plans and prepares for his future life transitions. Information seeking for planning and preparation purposes is not only prompted by the onset of life transitions, but is also often linked to income planning and preparation. This is a facet of older adults and governmental information interactions that I subsequently explore.

Financial Planning

Older adults' income sources often include income from both private pensions and publicly-administered pensions and benefits, such as the Canada Pension Plan (CPP), Old Age Security (OAS), and Guaranteed Income Supplement (GIS). An essential caveat about publicly-administered pensions and benefits is that the administering government body serves as the source of truth for information dispersal. Public pensions and benefits are often subject to fluctuations and payment schedules dependent on governmental policy direction. This is the case in the following situation, where Adah required CPP information for household budgetary planning due to fluctuating monthly payment amounts. This is information that is exclusively available through the Government of Canada, as this is the body that administers the pension plan. Adah shared the following response when asked about the factors that prompt her to look for government information:

> *I was looking for CPP. I wanted to know how much my husband and I were going to get because it goes up every month. So I was actually trying to make a budget so that, beforehand, so that I would know what I, we would get in CPP, OAS, and GIS [Guaranteed Income Supplement], and so forth.*

Income earned from employment and pensions is arguably more consistent due to the (usually) fixed payment amounts in comparison to publicly-administered benefit payments, such as GIS or Alberta Seniors Benefit (ASB) payments, where payment amounts are typically dependent on applicants' income levels and program policy calculation metrics (Government of Alberta, 2016; Government of Canada, 2016b). Hence, recipients of public pensions, supplements, and benefits will likely seek information directly from governments about such payments in order to seek credible answers that will help with financial planning and household budgeting activities.

There are also cases where newly-discovered government income provisions can impact household income levels and affect household budgeting;

Jane referenced a similar situation, where a discovery about what is likely the Government of Canada's CPP Child-Rearing Provision prompted Jane to contact the federal government. Jane explained:

> *I didn't know that the government had started giving a pension for women that raised their children…[the information] was on the tax return in very small letters… we missed it for two years… so we applied.*

In this case, government correspondence references the aforementioned income provision opportunity, but a primary concern relates to the Government of Canada's ineffective communication about this provision; this is an aspect of governmental information provision that I discuss in further detail at a subsequent point in this chapter.

There are also instances where governments offer savings or investment options, such as the Government of Canada's Tax-Free Savings Account (TFSA). Savings vehicles, such as the TFSA, are subject to rules linked to governmental policy and legislation; citizens who need information about policies and conditions often go directly to the source: the government. Jack described a situation like this, as he talked about his experience searching for information on caveats related to appointing a spousal beneficiary for his TFSA. While Jack could have revisited the original (non-governmental) information source where he initially read about TFSA beneficiaries, or could have contacted his financial institution about TFSA rules, Jack indicated that he specifically chose to find information via the Government of Canada's website. Jack explained:

> *I was looking for information for TFSA [on the federal government's website, which Jack bookmarks as a browser favourite], for example, not long ago. The Federal [Superannuates National Association], FNSA…had an article that said that if your TFSA had your spouse as a beneficiary, they should change it to, something else.*

Unfortunately, I did not ask Jack why he sought his information directly through the Government of Canada instead of through the initial FNSA article or his financial institution; further follow-up questions in during our conversation may have gleaned some insight into Jack's preference for seeking information through federal government information resources. This is a facet of this study that I discuss in greater detail in Chapter 5: Conclusion.

In all cases, a significant change is taking place in the lives of participants; these changes either directly affect participants or those who support them as they navigate these life changes. Each of these governmental information seeking prompts – involuntary life transitions or events, experiencing life transitions by proxy, and financial planning – demonstrate that information needs have arisen as a result of participants' or caregivers' "realiz[ation] that they are not comfortable with their current state of knowledge" (Case & Given, 2016, p. 371). Moreover, these situations, such as navigating life after family deaths, a new medical reality, new residence needs, or financial changes as a result of age and citizen status, particularly speak to Belkin's Anomalous State of Knowledge (ASK) (1982) in terms of participants encountering problems or situations of uncertainty in their lives, and, "recogniz[ing] that his/her state of knowledge is inadequate for resolving that problem, and decid[ing] that obtaining information about the problem area and its circumstances is the appropriate means towards its resolution" (p. 63). Finally, it is important to acknowledge the dimension of Everyday Life Information Seeking (ELIS) that Savolainen (2008; 1995) characterizes as seeking problem-specific information for the purposes of "solving individual problems or performing specific tasks (2008, p. 83). There are specific prompts – or problems – that drive participants' need for information and their resulting quest to mitigate uncertainty through the acquisition of information.

Moreover, participants, such as Jane and Edward, experienced the phenomenon of an "imposed query" (Gross, 1995) when engaging in governmental information seeking activities on behalf of an elderly family member or friend. Imposed query involves people "seeking information not because they have identified an information need themselves, but because they have been set on that course by another" (p. 236). In these cases, the question or path of investigation “has been *imposed* upon him or her by someone else” (p. 236). Many individuals who assume caregiving roles serve as “lay information mediaries” (Abrahamson & Fisher, 2007) for their elderly parents. Abrahamson et al. (2008) describe lay information mediaries as “non-professional information mediaries” (p. 311) who help connect those who with barriers to information access – such as mobility or health-related challenges – with the information they need. Jane and Edward’s role as proxy information seekers for their elderly parents is critical as they help their parents navigate life transitions and the uncertainties – and information needs – that accompany these personal changes.

All of the aforementioned situations demonstrate participants’ feeling the need to connect with certain levels of government as a means of resolving their personal information gaps. However, it is important to explore the situation that participants experience once they reach the government. The subsequent section explores the current states of governmental information and the informational implications this has for citizens.

Governmental Information: Current States

The process of acquiring government information is often a complex, multi-layered, and bureaucratic process. This section explores current states of governmental information explores the overall states of governmental information-seeking processes and resulting information interactions as described by participants. Study participants link the following two characteristics to all information channels of governmental information

- *Government-centric jargon*: government information – whether in print publications, on the web, or through human information providers– is often presented in a way that is not clear or understandable to laypersons. This arguably creates barriers to information, and ultimately leads to frustration.

- *Bureaucratic inefficiencies:* When participants finally make contact with the governments and government information, they discuss a lack of centralized information resources.

Both of these characteristics comprise the current state of governmental information and have significant impacts on the information experiences of older adults.

Government-Centric Jargon

Looking for information can be a frustrating process; however, the root of another information-related frustration is finding information that is not presented in an understandable way. Some participants, particularly Adah and Albert, reveal how their governmental information interactions – across all channels – are often plagued with government-centric jargon. The presence of "government speak" or jargon in government-produced publications creates information understandability challenges for intended audiences. Moreover, lack of understanding due to government jargon can lead to misinterpretation of information; this misinterpretation can deter information seekers from following an information-seeking path that will lead them to their desired information.

Another layer of frustration linked to use of government jargon is when information-providers do not – or cannot – explain the meaning of the jargon, thereby adding no value to the information interaction. Albert describes a situation like this as he tells me about a visit he made to Canada Place to discuss an income tax problem where he expected the governmental information provider to provide clarity through explaining the information to him, but this unfortunately was not the case:

> *I was having…trouble with income tax, so I went in [to Canada Place]…I ended up talking to [a representative] about an income tax problem… I asked some specific questions… [and] she hauls out this form...reads me a paragraph out of the form… and it was gibberish…it was meaningless*

even to her. She didn't know what the heck it meant, and so… I just kind of threw up my hands and left.

Similarly, Adah talks at great length about her experiences with government jargon and the resulting challenges and feelings of alienation in relation to the information. One of those experiences involves Adah's attempt to obtain CPP information, and she advises:

It was kind of trial and error… But the way that their jargon is… It wasn't very friendly. It wasn't everyday language; it was government language, and government has its own language… For a layperson, it's not very friendly or positive.

The notion of friendliness and approachability in information appears to be of key concern to Adah – and Albert, who describes how government jargon was essentially meaningless – in order to be considered usable, understandable, and intended for public consumption. Adah elaborates on a specific example of government-centric terminology and how use of unintuitive government program names impacts her perception and understanding of the program she seeks information about: the Alberta government's Special Needs Assistance (SNA) for Seniors program.

SNA may provide eligible seniors with funding to assist with the purchase of home appliances, home repairs, medical items, and other considerations that do not align with the most common understanding of the term "special needs" as encompassing "particular requirements resulting from physical disability, learning or behavioural difficulties, etc." (OED Online, 2016). This is an issue that Adah explains, as she advises that the government's use of a program name does not reflect the widely-accepted understanding of the term "special needs," which often refers to disabilities, accessibility or mobility barriers, or cognitive impairments. Adah shares:

The [annual benefit letter from Alberta Seniors programs] does say…you can access Special Needs, but what is Special Needs? When they say, "special needs," I think of someone that…needs some special needs, and

> *not just the average senior in the low income…who would say, "Oh, I don't need Special Needs"… and they just say, "Oh, no," not realizing that it's really, it's special needs, but it's not as they have perceived the special needs.*

Thus, use of government-centric language and terminology instead of simple, plain, and understandable language contributes to information barriers that older adults – or anyone, for that matter – may face when searching for information on governmental programs or services. Lack of information understandability also creates frustration, as seen with Albert and Adah, and sometimes causes individuals to give up their information search altogether – such as Albert – because their end goal of closing their information gap has not been achieved.

While specific examples of experiences with governmental jargon only came up in Albert's and Adah's discussions, the need for governments' dispersal of understandable information is becoming increasingly important. Recently, the Government of Canada's Canada Revenue Agency (CRA) acknowledged the need for understandable language in government correspondence to citizens; this is evidenced in the *External Administrative Correspondence (EAC) Evaluation* commissioned by the CRA in 2014. A key focus of the *Evaluation* focuses is whether CRA correspondence sent to citizens is understandable. The report states,

> Plain language, clarity, readability, and understandability as it pertains to written correspondence are dependent on the following basic input elements
>
> - Content: the selection of information to be communicated
> - Structure: how the information is organised, sequenced and linked
> - Language: how the information is expressed in words including tone
> - Design: the typography, layout and graphic design of the document. (p.7)

Additionally, I have first-hand experience with the frustrations of governmental program and service clients when government jargon creates misunderstandings about the purpose of programs or services during my role in Client Information Services. Program names like "Special Needs Assistance," benefit calculation terms like "non-deductible income," or even the term "eligible" are often not meaningful or understandable to program recipients, especially if they are unable to connect with government staff who can effectively explain these meanings on a level understandable to citizens. That said, a challenge that governments sometimes face when creating public information is that, often, program policies are based on legislated acts; this adds layers of complexity that are, often, not easy to work around. Use of synonyms and plain language is particularly challenging – and not always possible – because explanation of program policies cannot deviate from regulations outlined in corresponding act(s). Nonetheless, it is essential in cases where it is possible to present information in plain, "everyday" language.

Bureaucratic Inefficiencies

Governmental business processes are often structured with layers that both civil servants and the public deem complex. Many participants remark that searching for governmental information most times involves working through multiple channels to obtain all desired information. Inefficiencies found in the governmental information-seeking process are often associated with information interactions via telephone. While the obtaining information via telephone is often inefficient, this information channel seems here to stay; the prevalence of popular government telephone contact centres such as Service Canada, Alberta Supports, and the City of Edmonton's 311 line demonstrate the importance of this information channel. However, participants talk about their experiences with moving through multiple government channels to find the information they need, and these experiences are often accompanied frustration with current governmental information seeking processes.

Albert shares that seeking governmental information is always intentional – or problem-specific – on his part, and this is an activity he performs on an as- he does not particularly enjoy:

The government puts out brochures… about services, but that's usually just to beginning of a long search, because... [Governments are] often a bit vague about the services that they provide, and you have to start phoning, and then you get transferred from this…party to that party. After a long time you might get to where you want to go.

Albert's experiences in trying to connect with government departments – specifically via telephone – and the inefficiencies he discusses demonstrate the impact that bureaucratic inefficiencies have on governmental information seeking processes. Moreover, some of the information access barriers Albert reveals relate to the common presence of automated phone menu systems:

They have this miserable tendency to pass you along ten different people before you finally get to maybe where you want to be… you're ready to talk to somebody… and the first thing you hear is [a phone menu] …that's just a pain in the neck.

Adah also expresses frustration with inefficient information service via telephone, due to waiting on hold for an extended period, as she discusses calling Service Canada:

I went and met in person, because I wasn't getting any answers from the phone because I was on hold too long.

Jack discusses similar frustrations about waiting on hold to speak to a government representative, and the unwelcome encounters with automated telephone menu options:

I used to prefer to phone, but the problem is that when you phone you never talk to anybody… and they give you eight different [automated] choices, and none of those choices is the one you want... It's just a hassle.

Similarly, Marcel also shares a story of opting to use other information channels due to the inefficiencies linked to contacting the government via the telephone:

I try using Internet sources because the phone, I've had too many, you phone and they put you on hold, you know, and you never know when they're going to answer.

In some cases, obtaining information via telephone is an essential means to connect with government due to mobility or health concerns that may prevent individuals from comfortably visiting in-person sites. Moreover, individuals that are not comfortable conducting information-seeking activities via the Internet may view telephone contact as their most plausible option for obtaining information.

Interestingly, trying to find information via the telephone is reflective of the way some participants, feel, overall, about the experience of searching for governmental information. Multiple participants compare the experience of working through bureaucratic channels to obtain information to an octopus with multiple legs or tentacles, and one participant compares the experience to surviving in a jungle in order to demonstrate the complexity of the governmental information seeking process.

Jack is one participant who characterizes his experience of navigating through government information channels to the multiple tentacles of an octopus as a means of demonstrating the complexity of the information-seeking process:

It's not that easy to find… just specific information, you know, about the government, all forms of government…it's like an octopus with ten million tentacles, and you don't even know which one you want. It's hard to figure out.

Similarly, Rose also compares the experience of governmental information seeking to an octopus in her attempt to capture the complexities of navigating through government channels to find information. Rose advises:

Sometimes you get a runaround, a merry-go-round, because [of] all the different channels you got to go through. You don't always get the direct answer… it's like an octopus: the less feet [it has], you can see them all.

The more feet [it] has, you can't see them. And that's [government] administration…It's like a tree.

Moreover, Bill compares the experience to navigating governmental information to surviving in a jungle environment:

To me it's like a jungle when you've got to. You operate like you're in a jungle. Some people get, they perish in a jungle and others survive.

The challenges and complexities that participants describe arguably indicate a strong need for simplicity. This is a sentiment expressed by the fact that the vast number of bureaucratic channels that Albert, Jack, and Rose describe working through likely means that simpler and more straightforward access to government information is needed. This is also, arguably, reflected in Bill's and Marcel's wishes for greater centralization in governmental information resources and points of contact. When Bill was asked if there was one thing that governments could do differently about providing information, he offers the following solution:

Centralize. [Have] a central point, and keep it simple.

Similarly, Marcel asserts:

For a person my age…one office should have all this information… not just say, well, go there, and go there, you know? There should be one [information office].

Further, when asked if he could tell governments one thing about getting the information he needs to get, Marcel shares an identical solution to that offered by Bill:

Well, to centralize it… have one place you could get all that information. Now you have to go here, go there, and there, and all over. Get it in one place.

Comparing the process of navigating governmental information to an octopus with multiple tentacles or a jungle environment paints a picture of complexity and challenge; in contrast, the desired solution of central information provision alludes to a need for a simpler and more straightforward process of finding information. However, centralized information contact centres, such as Service Canada's 1-800-OH-CANADA, arguably lead to a greater chance of being prescreened through automated phone menu systems or waiting on hold before a person is available to assist with an inquiry. Participants' characterization of the complexity and bureaucracy of navigating government channels for information is akin to the reference interview that provides an "unmonitored referral" (Ross, Nilsen, and Radford, 2009), where the information provider "refers the user to a source, either inside or outside the library without taking any steps to check whether the user eventually gets a helpful answer" (p.70). This phenomenon is particularly apparent in Albert's experience of getting transferred to multiple individuals before reaching someone who can provide the information he needs, and Rose's experience of riding the metaphorical merry-go-round of government channels to find the information she needs.

Nonetheless, there is an obvious demand for information service and human information channels – such as telephone contact centres and in-person offices – despite an arguably growing presence of government information and services offered via the Internet. The present study investigates the governmental information interactions of older adults and identifies the governmental information channels that older adults use and their experiences with these information channels; however, further research, beyond the scope of the present study, is needed to determine how older adults experiences with government information channels compares to existing literature on information channel use. The next section of this chapter, where I examine implications of study results, explores the characteristics of human, technological, and print information interactions.

Human Information Interactions

Human information interactions encompass obtaining information via some form of human contact, which primarily occurs at in-person offices such as Service Canada or Government of Alberta offices. A unique quality of human information interactions that is not typically a factor in technological or print information interactions relates to the collaborative – and arguably codependent – nature of human information interactions, particularly when these interactions are successful. The following are key factors that participants describe when characterizing their human information interactions:

- *The "right" person*: Use of human information providers to facilitate information seeking or information exchanges creates disparate experiences. Participants both explicitly and implicitly describe characteristics that comprise the "right person," who facilitates a successful and meaningful information exchange. The "right person" is effectively knowledgeable and invested in the information interaction, and generally closes a person's information gaps.
- *Body Language*: Some participants specifically reference the importance of body language and non-verbal cues during an in-person information interaction. Participants who reference body language see these cues as indicative the information provider's interest and investment in resolving the information gap and creating successful information interactions with resolution to older adults' information gaps. Body language has inextricable links to whether a participant deems an information provider the "right" or "wrong" person to facilitate the information exchange.
- *Reliance on health professionals for information*: Consultation with health or medical professionals often intersects with pivotal life situations, changes, or events; health professionals often advise on medical situations that impact other parts of their patients' lives such as residence recommendations based on mobility or health needs, and the information needs of individual often go beyond the scope of information on the medical situation. A number of participants indicate that health and medical professionals are a key group that they trust and rely on for information, including referrals to related government programs as they relate to an individual's medical situation.

- *Hybrid information interactions*: Hybrid information interactions involve information seeking via human and technological means, simultaneously, in order to obtain information. Hybrid information interactions typically stem from in-person information interactions when participants visit governmental offices, where staff members then direct them self-service computer stations to retrieve the necessary information. While this instance did not come up in many participant discussions, it is demonstrative of an important trend in e-government's evolutionary push for self-service information channels.

The "Right" Person

Information exchanges between people are highly variable as a result the subjectivity of human interactions. Participants both explicitly and implicitly describe how the quality and outcome of their human information interactions are contingent on human information providers who facilitate the information exchange. Participants characterize the "right" person as:

- knowledgeable about program information and related policies, and can clearly explain information in ways that make sense to participants;
- flexible, in that the information provider adapts information provision according to the participants' information needs, even when this goes beyond the scope of information providers' purview. For example, many seniors expect governmental information providers to have knowledge of all related (federal and provincial) seniors programs and how these programs may interact, regardless of which type of governmental office the senior is visiting in person; and
- invested in meeting the information seeker's information needs, and displays an interest in and commitment to closing information gaps and resolving inquirers' concerns through provision of information.

Levels of knowledge, flexibility, and investment are characteristics that often have inextricable links. The importance of knowledgeable information providers arises in participant discussions that both praise favourable interactions and lament negative information interactions that occur as a result of unknowledgeable staff. Additionally, there is the implicit notion that unknowledgeable staff cannot adapt to participants' information needs, and are thereby not invested in closing information gaps and having successful information exchanges. Interestingly, participants often explicitly reveal the need for knowledgeable governmental information providers as a response to the question of what they would tell governments about their governmental information seeking experiences. Moreover, participants implicitly describe the "wrong" person (information provider) with relationally opposite characteristics than that of the "right" person, which still indicates qualities that the "right" information provider must possess to facilitate a successful information exchange. The implicit "wrong" information providers are unknowledgeable or apathetic, and participants often perceive them as inadequately trained.

Throughout our discussion, Jane details the extremely challenging experience of moving her ailing mother into a suitable long-term care facility. Jane explicitly references the need for encountering right person – and implies that this happens by chance – as she shares that,

> *Those things get found out, but it's just by chance if you ask the right person.*

Moreover, Jane is explicit in her assertion of needing the "right" person; the "right" person in this case is specifically knowledgeable and able to provide the information being sought. Charlotte, on the other hand, is more implicit in her indication about the need for the "right" person and the resulting quality of an information interaction. Charlotte shares,

> *[Getting information] isn't always easy. It depends on the person you're dealing with at that particular point in time. I think it has to do with how well they're trained, and whether they're really interested in their job.*

In Charlotte's case, she associates an information provider's knowledge and investment with their interest in a successful outcome, and deems this as something that happens by luck or chance. Charlotte elaborates on a chance or lucky encounter with the “right” person, which arguably, implies that encountering a suitable information provider is potentially a rarity. In this instance, Charlotte reveals inefficiencies tied to previous in-person information visits, and shares,

> *I’d been in person 3 times before that and when I went in I said, “I need to talk to somebody who seems to know,” and I was lucky I got a fellow at the desk who… because of his culture he was raised to appreciate seniors, and he got me in, which I thought was very nice.”*

While Charlotte does not explicitly reference the “right” person, the information provider in this situation displays flexibility in his willingness to adapt his approach based on Charlotte being a senior, and his investment in helping Charlotte to resolve her concerns. Charlotte’s comment also implicitly characterizes seniors as a special social class of individuals that require certain considerations beyond those applied to the broader population. Additionally, the fact that Charlotte expresses her luck in encountering this particular individual supports the notion of needing the “right” person. Furthermore, Charlotte touches on the importance of effective staff training to cultivate knowledge, and the provision of reference materials, to enable staff to efficiently assist clients. Charlotte asserts,

> *Train your staff so that they’re in a position to answer the questions. I realize there’s a lot of questions. Or have a manual that they can look it up so that you’re not wasting their time and holding me up as well.*

Adah also explicitly shares the need for knowledgeable information staff in relation to conveying a key message about her governmental information experiences, while implicitly revealing the importance of flexibility and investment in the information exchange:

> *I can only think of what would be my preference, which would be a face-to-face with a knowledgeable person; someone that could actually answer my questions… [not] in their own tunnel vision of what they know.*

Adah does not specifically reference the "right" person, but nevertheless expresses the need for the type of human information provider that embodies these characteristics.

Albert also discusses frustrating information experiences, and explicitly shares the need for an information provider with both knowledge and flexibility. Albert stresses the need for a knowledgeable and invested information provider, as he suggests,

> *Put a knowledgeable person at the end of the phone line…I tend to ask questions kind of outside of the box… There is a bank of information and they refer you to it, but they wouldn't if you didn't ask…one of the things that I like about talking to people…you know, [when] they're not knowledgeable about what you're asking, but I often get insights that I didn't have before…often times it's just a matter of stimulating their thought processes.*

In this case, encountering a knowledgeable and invested person not only leads to a successful information exchange, but what Albert explicitly reveals, which is not yet discussed by other participants, is how he has learned something upon the information exchange.

Some participants count on the flexibility and knowledge of human information providers, and use this avenue for information seeking specifically for these reasons. There are times when the information seeker does not know how to deal with the situation and would like the information provider to figure it out. Edward shares,

> *I often prefer to just hit "0"… try to find a human being, and say, "this is the situation here," and let them figure how to deal with it… It's more efficient.*

Jack has a similar perspective on why he likes to contact human information providers because of flexibility and knowledgeability purposes:

> *The [Government of Alberta's RITE line is] very, very good. You phone them and then they can distinguish, right away, what you need, and it's*

quite difficult because…sometimes you don't know exactly what you want, and…you're kind of casting around, and…you may verbalize it differently that what they're used to hearing.

Rose also speaks about the flexibility of human information interactions and how the conversation can spark other pertinent information seeking paths in relation to the issue at hand. In Rose's opinion interacting with a human information provider, specifically in person, is an effective way to ensure all of your questions or answered. This is an open-ended conversation where the information provider and the information-seeker adapt to the track the information conversation is taking:

When you're there in person you can think of these things, or they [referring to information providers] may come up with an idea… when you're there in person your wheels are turning.

Participants both explicitly and implicitly describe the qualities that comprise the "right" human information provider. Successful information interactions with the "right" person involve knowledgeable and flexible providers who are invested in an effective information exchange with a successful outcome. Ross et al. (2009) discuss the skill set imperative for facilitating effective reference interviews such non-verbal communication, active listening, approachability, question negotiation and asking sense-making questions, establishing common understanding of the question through paraphrasing and summarizing information seekers' questions, and effective and positive interview closure. These skills are certainly critical for any information service professional, particularly those who need to directly connect citizens or users with information. The flexibility of the "right" human information providers demonstrates their ability to actively listen and ask sense-making questions in order to understand participants' queries and, in some cases, question negotiation helps participants to fully navigate their own inquiry if they are uncertain about the right questions to ask. The need for knowledgeable and invested information providers often comes up in discussion of how to characterize the "right" person; Cassell and Hiremath (2009), also outline the skills that effective reference librarians should exhibit such as understanding the information seekers' needs, establishing a rapport with the information seeker, exhibiting approachable body language, and engaging in and active listening skills so that the information seeker is aware of your interest in their query. All of these suggestions are certainly transferable to those in governmental information delivery roles.

One of the characteristics that Cassell and Hiremath (2009) explicitly mention – and a characteristic that is unique to human information interactions – involves the body language and non-verbal cues that information providers exhibit. I explore body language in the next section, as these non-verbal cues also contribute to the quality of information interactions.

Body Language

A number of participants discuss how body language and non-verbal cues convey implicit, yet specific, information during human information interactions. Those who reference body language see these cues as indicative of the information provider's interest and investment in resolving the information gap and creating a successful information interaction. Additionally, there is a strong connection between body language and "right" or "wrong" information providers; the "right" person presents certain body language and conveys non-verbal cues, such as facial expressions that instill confidence in participants' belief that the information provider is knowledgeable, invested, and can successfully facilitate the information interaction. Conversely, participants indicate that apathy or confusion are also clear through an information provider's body language and non-verbal cues, which is a sign that this is not the right person to successfully facilitate the information interaction.

Edward speaks to the meaning and engagement that the integration of body language creates as he specifically references how non-verbal actions can demonstrate acknowledgement and investment in an interaction. Edward shares, *There are social consequences…for human dilemmas… but we can ameliorate those consequences by you and I learning to talk to each other and exchange meaning… the thing is, I feel that I'm talking to a real person, and [you're] nodding [your] head, and I'm saying something that matters to me, and I think you're detecting that.*

Edward shares how body language physically conveys personal investment in a productive dialogue. A key aspect of effective body language that Edward explicitly mentions is the meaningful information exchange that occurs through the presence of these non-verbal cues, such as head-nodding as acknowledgement of hearing and understanding what someone is asking during a conversation.

Albert also discusses the benefits of talking to a person, particularly in relation perception of knowledgeable the information provider is about the questions he wants to ask:

That's kind of one of the things that I like about talking to people. You can pick, you know, [when] they're not knowledgeable about what you're asking.

Unfortunately, I did not ask Albert how he picks up on an information provider's level of knowledge. My conversation with Albert was my second participant interview during this study, and, at the time, I was unaware how significant body language would become in discussions of human information interactions. However, in hindsight, I should have investigated this sentiment further through asking Albert to describe specific traits and non-verbal cues that information providers exhibit that indicate or imply their knowledge about and investment in the information interaction. .

Charlotte, on the other hand, explicitly details how facial expressions are a strong indicator of someone's level of knowledge or truthfulness about the information they are giving you. Charlotte shares,

When you're talking to a person, what they're saying and their face, they both tell a story. You're saying one thing, but sometimes your face is saying something else, especially if you're not being honest…your body

> *says a ton of things about you. Your face talks. You know, it isn't just what's coming out of your mouth…when that person is talking to you, you know whether they're happy or angry, said, you know, are they telling the truth?*

In this sense, body language is a strong indicator of whether the information provider is the "right" person through their expression of non-verbal cues. This is arguably a factor that leads an individual to pursue a human information interaction instead of seeking information via technological or print mediums; the in-person information interaction is revealing in terms of information accuracy and authenticity.

Similarly, Adah reveals how human information interactions are flexible, nuanced, and, in her view, most effective for resolving an information query because of the information that body language and non-verbal cues convey. Adah shares that they prefers face-to-face information interactions because,

> *You get to see how the person reacts to your question, and you know right away if you're not using the right language or if there's another way that you could put it that the person you're taking to would understand what it is you're trying to say… [with] face-to-face you can get some body language and… at least I can then think of something, [an]other way to express my question.*

Adah, much like Charlotte, also delves into the importance of facial expressions and the implicit communication through these expressions. It is therefore clear that there is a valuable and exclusive communicative layer to human, in-person, information interactions in the form of body language; this layer is arguably not a factor when information seeking through other mediums such as online or print. Additionally, Adah implicitly speaks to the collaborative nature of human information interactions as she touches on the negotiations that arise as a result of body language and non-verbal communication; these cues help in establishing a mutual understanding of the information she is asking about and receiving from the information provider.

Edward, Albert, Charlotte, and Adah all speak to the value of body language and non-verbal cues, and the information that someone can communicate through these simple gestures or expressions such as level of knowledge, interest, or investment in the information interaction. Moreover, the aforementioned participants implicitly reveal the collaborative nature of human information interactions and how the "right" person expressing effective body language or facial expressions can help in negotiating the information exchange.

Thus, the information service professionals that participants perceive as the "right" people meet a set of criteria similar to that of an effective reference librarian. Ross et al. (2009) explore the skills that are imperative for facilitating effective and successful reference; these skills are transferrable within the context of this study and those individuals who participants seek information from with respect to government services or benefits. Ross et al. discuss the importance of "nonverbal attending skills" (p. 50) and behaviours such as "eye contact, tone of voice, facial expression, posture, gestures, positioning of arms and legs, style of dress, or your distance from another person" (p. 50).

Exhibiting the certain body language and non-verbal cues speaks to characteristics that the "right" person should encompass. However, sometimes participants perceive the "right" person as fulfilling a certain role in addition to demonstrating specific characteristics. In the following section, I explore how a number of participants feel that medical and health practitioners have a responsibility to disperse information on governmental services or benefits that relate to an information seeker's medical situation regardless of whether the information is under the purview of the health practitioner to provide.

Reliance on Health Professionals for Information

Consultation with health or medical professionals often intersects with pivotal life situations or events; these professionals often advise on medical situations that impact other parts of their patients' lives such as residence recommendations based on mobility or health needs (for example, long-term care or other assisted living needs or authorizing a parking placard for a disabled person). A number of participants indicate that health and medical professionals are a key group of people that they trust and rely on for information such as referrals to related government programs despite the fact that this kind of information provision is technically not under the purview of the medical professionals to provide.

In my discussion with Jane, she shares details about the strenuous process of getting her mother into a long-term care facility. This was a new and unknown process to Jane and her family, and she clearly states the implicit expectation that the doctor should have provided more information at the time of the consultation. Interestingly, the level of information a doctor provides is arguably seen as a factor that determines the quality and knowledge level of the doctor, regardless of whether it is the doctor's role to provide secondary information not directly related to the medical condition. Jane shares,

> *[Mother] had a doctor at that point. The doctor was aware of her problems [and] didn't refer her anywhere, didn't do anything. The doctor in this case was of no help whatsoever. We got a caseworker, which apparently happens, and from there we kind of muddled our way through.*

Similarly, Marcel discusses his need for a parking placard for persons with disabilities as a result of a medical condition. It is clear that Marcel feels that it is his doctor's responsibility to both inform him about next steps, and even submit the necessary paperwork on his behalf, which to Marcel's benefit, happened in this case:

> *I was diagnosed with emphysema, and the doctor didn't tell me I should go and apply for the handicap credit, you know?... The first doctor that… looked after me… sent off the [handicap credit] application and I didn't even know about it… [and] if that doctor hadn't have done it I never would have known to do it because nobody else would have done it for me, and nobody would have even talked to me about it.*

The doctor, in Marcel's case, is clearly a primary source of information about all aspects linked to his emphysema, including information about a parking placard for disabled persons. Incidentally, this is a situation where Marcel needed information, but was not actually aware of the information that he would need to help with his situation.

Perhaps Rose is familiar with this type of situation, as she explicitly states that it is the responsibility of health professionals to disperse information:

> *You have the health care providers to give you that information, and that's what they're there for… just to give sufficient information of understanding.*

The stance that doctors should provide more information and educate next steps, including referrals to government services or benefits that may help patients, is arguably not an age-specific phenomenon. However, this notion is certainly indicative of a larger issue: it appears there is a clear need for more information and information outreach services at medical settings to assist patients and caregivers with follow-up information – often governmental information on available programs, services, or benefits – as it relates to the patients' medical situation.

While studies currently exist on older adults' health information-seeking behaviours (Manafo & Wong, 2012; Xie, 2009), it is important to point out that older adults' health information-seeking experiences are beyond the scope of this study. Results of the current study demonstrate that participants are seeking non-health information from medical professionals. Thus, reliance on health professionals for information, regardless of whether it is their responsibility to provide this, demonstrates what Savolainen deems as seeking problem specific – or practical – information (2008; 1995) for "mastery of life" purposes (1995, p. 265). When participants visit in-person offices, call government contact centres, or consult with medical professionals, they are typically engaging in what Case and Given (2016) and Wilson (2000) characterize as active and purposeful information seeking as a result of information needs. Participants' "recognition that [their] knowledge is inadequate to satisfy a goal that [they] have" (Case & Given, 2016, p. 6) propels them to resolve the situation through information acquisition. However, there are instances where an individual hopes to speak to a person who can effectively resolve their information gaps, but instead they receive direction to use technology to facilitate their information interaction. I refer to these instances as hybrid information interactions and explore them in the following section.

Hybrid Information Interactions

Hybrid information interactions involve the intersection of human and technological entities to facilitate information interactions. These interactions seem to occur from information seeking that initially starts through human interactions at in-person offices; however, when members of the information-seeking public arrive for information at the office, staff members typically direct information seekers to self-service computer stations to retrieve the information the information seeker intended to find with the help of a person. While Adah was the only participant to delve into significant detail about her experiences with intersecting human and technological interactions, this kind of governmental information interaction is largely indicative of a current and growing shift in the ways that governments provide information services to the public.

Adah shares a story of going into a Service Canada office with the specific intent of getting in-person help, but she is, instead, advised to use a self-service computer station to resolve her information needs. Adah shares,

> *I found that quite frustrating, mainly because I was not computer savvy… this is when I went and met in person… [and] I thought I'll be able to talk to somebody in person. It turned out it was a lesson in how to get into the computer and make a file for myself to access things, and that's what I found frustrating.*

The undesirability of this information interaction is largely due to the fact that Adah is not familiar with using ICTs to seek the kind of information she is seeking. Additionally, Adah did not go to the Service Canada office to use a self-service station, but rather:

> *I came, special, here… for person-to-person… because I work better when I… talk personal to a person.*

Hybrid interactions with humans and computers are not bad if you have a person who is willing to help you or walk you through things:

> *I would prefer… a face-to-face meeting, or if there is Internet and you actually have gone to ask something, well they should be able to help you with the Internet… or give you some clues, or sit with you while you're trying to struggle through it and say, "No, don't go there; you need to go here," or, you know, something like that.*

While it is exclusively Adah who speaks to this phenomenon, it is essential to stress the importance of this kind of information interaction, and the growth of this kind of information interaction. Currently in Alberta, there are Alberta Works Centres and Alberta Supports Centres that offer computer stations to clients for public use. Federally, Service Canada offices appear to be moving in the self-service direction, and it is important to note that two of the three online applications offered by the Government of Canada are geared toward seniors or those close to senior citizenship: CPP and OAS. Government service that looks like this speaks to Scholl and Klishewski's (2007) characterization of digital government as, "the seamless integration of computer-supported government services" (p. 889) as well as Shareef, Archer, and Dutta's (2012) notion of e-government as "the use of technology to enhance the access to and delivery of government services to benefit citizens, business, and employees" (p. xv).

The notion of hybrid information interactions also aligns with the Revolution phase (phase IV) of Andersen and Henriksen's (2006) Public Sector Process Rebuilding (PPR) model, Revolution, where governments place greater accountability on citizens for the submission and maintenance of information, which is typically enabled through governmental self-service we tools such as the My Service Canada account.

While Adah's experience demonstrates one person's situation, the notion of hybrid information interactions is arguably indicative of larger trends in governmental information and service delivery. In Adah's case, the technological aspect of the information interaction is not her choice. Thus, as Veit and Huntgeburth suggest, "public administrations who wish to offer digital services have to realize that they have to maintain traditional service delivery for disadvantaged groups such as elderly, low-income, or low-educated people" (p. 48). Nonetheless, there are cases where use of technology to facilitate information interactions is a choice regardless of one's comfort level with using technology. In the next section I explore the nature technological information interactions and how participants perceive and experience them.

Technological Information Interactions

Technological information interactions involve the use of ICTs such as computers, mobile computing devices, and the Internet to find information. Overall, interviews show three emergent themes in relation to participants' ICT use, or lack thereof, for governmental information seeking:

- *Perception of instant information availability:* A number of participants perceive information access and availability as instant and more efficient when using ICTs in comparison to more traditional – or manual – ways of information seeking such as phoning or visiting government offices.
- *Perception of infinite information availability:* Many participants perceive the Internet as having an infinite amount of essential information. However, many participants express challenges with either access to or use of ICTs; this unfortunately hinders their access to the information they perceive as being available and abundant via the Internet.
- *Polarized and disparate experiences with ICT use:* Participants express varying levels of experience and comfort with technology use. Generally, participants who are comfortable with using ICTs and the Internet deem information seeking activities as relatively easy in comparison to those

who are not comfortable using ICTs. It appears that use of ICTs and the Internet to facilitate information interactions is generally only effective when a person is comfortable navigating a technological device or environment.

Instant Information Availability

A number of participants feel that use of ICTs enables efficient information seeking and instant access to information. Participants seem to have this perception regardless of their comfort – or discomfort – levels with using technology for information seeking.

Bill, who is generally comfortable using computers and the Internet for information seeking, extolls the benefits of the Internet as an information tool and the efficiency it enables in relation to information seeking activities:

Internet is quite remarkable, and it is remarkably flexible as well… for me, it doesn't take very long to get whatever it is I want.

Charlotte, who is moderately comfortable with using technology for information seeking also acknowledges the efficiency of computers in facilitating information seeking activities. She also perceives this route as more beneficial upon becoming more technologically proficient. Charlotte advises,

It makes life much simpler than trying to get someone on a telephone nowadays… especially in government departments… If I was proficient it [referring to getting information] would be easier, because quite often you phone, and you may wait several days or several weeks before you get an answer.

Conversely, Rose is not familiar with using computers and the Internet, but she implicitly acknowledges her perception of instantaneous information access if using technological tools for information seeking:

People have got their… laptops [and] all these little gadgets. They can get [information] directly, but when you don't… you have to decide, "do I phone, or do I go in person?"

While Bill, Charlotte, and Rose each possess different comfort levels and experiences with ICT and Internet use, they all have something in common: the shared notion that use of technology and the Internet for information seeking activities leads to more efficient access to information. Similarly, a number of participants, each with varying levels of comfort with and use of technology, feel that ICTs and the Internet provides access to a plethora of valuable information. Bill captures this sentiment as well as the notion of instantaneous information access through use of the Internet as he shares,

> *If I want information… you push a button and you've got an incredible amount of information.*

In this sense, ICTs and the Internet do not only enable instant information access, but potentially infinite information access; I explore this notion in the following section as I discuss the how the Internet is seen as a tool that houses extensive and valuable information.

Infinite Information Availability

Many participants perceive the Internet as a having vast amounts of critical information in addition to providing instant access to information. There is, therefore, the implicit notion that access to and use of the Internet is essential if one hopes to stay informed about the issues important to them.

Edward uses both traditional and technological means to find information, but he acknowledges the Internet as an abundant source of information. Edward suggests that the presence of the Internet means

> *No encyclopedia necessary… there is an encyclopedic amount of knowledge freely available to people on the Internet.*

Similarly, Jane, like Edward, compares the Internet to an encyclopedia. Jane also reveals the efficacy and significance of the Internet as an information seeking tool, which she reveals through the precedence she places on this information medium:

> *So many people that are older than I haven't got a clue about the Internet and don't intend to. So, again, it's like, how do you find out?... When I hear about something I don't know, I go to Google and I look it up, and it's like an encyclopedia.*

Marcel also places emphasis on the effectiveness of the Internet for information seeking, as he shares,

> *I'd go to the computer first, now, because… it's so complete – information possibilities – on the Internet.*

Interestingly, those who do not use the Internet as their first point of access for information seeking share the same awareness of its gravity as an information tool. One of these individuals is Albert, who indicates,

> *Apparently… you can get endless amounts of information by going to links.*

Moreover, while many participants acknowledge the breadth of information on the Internet, the credibility of said information is not questioned. This is potentially an area – that is, knowing how you can trust the information you encounter via the web – that requires further investigation.

Edward, Jane, and Marcel all engage in information seeking via the Internet, but Albert shares that this avenue is not his first choice. However, all of the aforementioned participants feel that ICTs and the Internet provide access to a significant breadth of valuable information. Access to the abundance of information that is available via the web is generally possible when individuals have access to technology and knowledge of how to use and navigate the technology for information seeking. The notion of instant and infinite information availability via the Internet – and the implication that this is not the case when not using the Internet – coincides with Yu's (2011) suggestion that, "all forms of information- and ICT-related divides contribute to the overall information inequality," (p. 661). Jane's assertion exemplifies, at minimum, the perception of information inequality when one does not know how to use the Internet for information searching, and also speaks to Selwyn's (2004b) suggestion that "the ability to use information and communications technology (ICT) is now assumed by most commentators to be a prerequisite to living in the 'information age"' (p. 369). Edward and Marcel acknowledge the extensive amount of information available via the Internet, but in order to access this information it is essential to have Internet access. Nonetheless, while access is important, it is also important to know how to effectively navigate this kind of information environment; interacting with information via ICTs is arguably a very different experience than information interactions with humans or print materials. In the next section I explore participants' information seeking experiences in relation to their technology comfort levels and use. Experiences are certainly disparate depending on one's access to and comfort in using technology, and these experiences exemplify the impacts of landing on the right or wrong side of the digital divide.

Polarized Information Interactions

Use of ICTs to facilitate information interactions is feasibly only effective when one is comfortable using technological devices and navigating digital environments like the Internet. In the previous sections I discuss how a number of participants feel there are benefits to using the Internet and technology for information seeking regardless of their personal comfort levels with this environment. Therefore, it is essential to explore the notion of polarized information interactions – and how those who are familiar with computers and the Internet have more favourable information interactions than those who are unfamiliar with information seeking in this territory – because these interactions are arguably indicative of a larger trend in relation to the digital divide.

Albert, who asserts his preference for traditional means of information seeking, shares

> *I don't like the business of using the Internet, because I'm not that good at it for one thing, and it just doesn't feel right. I don't feel in control, you know?*

Albert further opines,

I find the Internet damn hard to use… I will go to a site and I can't make sense of it… apparently… you can get endless amounts of information by going to links and all that sort of…garbage. I don't know how to do that… I find the Internet is a very unfriendly place for me.

Charlotte also expresses challenges with using ICTs, and asserts,

I'm not particularly good, unfortunately, on the computer. I have one and I'm working on it, but I'm still not very proficient.

While Charlotte implies that it is unfavourable that she is not proficient in using computers, she nonetheless persists with her efforts to enhance her technological skills; this arguably demonstrates her recognition of the gravity of computers as a tool that facilitates information access.

Adah is moderately familiar with computer use, and she explains that her previous experience with computers encompassed completion of specific job-related tasks:

When I used a computer it was for a specific job, and it had a very specific path to follow. There was no Facebook, Internet, and, you know, all that stuff.

It is key that Adah mentions using a computer and following specific pathways to get work done; her assertion implies that using computers and the Internet for nonwork information seeking – and, thus, for Everyday Life Information Seeking (Savolainen 2008; 1995) – means moving through unclear and undefined paths to complete the tasks involved in information seeking. In this sense, Adah arguably associates using a computer to complete her work-related tasks with having a clearly defined and linear navigational path. Conversely, it appears that use of computers and the Internet for nonwork tasks, such as information-seeking, presents many different and non-linear pathways to get to the same endpoint. Moreover, Adah discusses the outcome of a hybrid experience when going into a Service Canada office where her intent was to pursue in-person service; instead, she was directed to Service Canada's website. However, unfamiliarity with how to navigate the Service Canada website made for an unsuccessful information interaction. Adah shares,

> *I don't really recall that I got the answer that I was looking for, even when I was on the computer, because I didn't really know where to look.*

Adah's assertion that she could not find what she was looking for, "even when I was on the computer," conceivably implies that the information she is seeking is unquestionably available on the Internet. However, unfortunately Adah was not able to benefit from this information due to her access barrier as a result of not knowing where to look, which undoubtedly contributes to her frustration. When asked if using the Internet is her first choice to use when looking for information, Adah opines,

> *No. I find myself, I go around in circles because… I plug into something [meaning clicking on a link] and that's not what I want, so I come out and then I go on to something else. Then after a while I get frustrated, and I'm usually back at the beginning, and I think, well, this was a waste of an hour.*

Adah's experience demonstrates the lack of linearity in web-based information, but she nonetheless still attempts to seek information through this medium. If given the opportunity to revisit this conversation, I would investigate Adah's reasons for sticking with information seeking on the Internet despite the challenges she mentions, especially as Adah admits,

> *The Internet is really confusing for people to learn [if they] weren't brought up in it.*

Albert, Charlotte, and Adah all express discomfort and challenges in using the Internet for information seeking, yet each individual acknowledges the validity of this medium as an information source. Conversely, Bill, Edward, Jane, and Marcel are comfortable using technology and the Internet for information seeking and reap some of the benefits of using this medium, including instant access to infinite amounts of information. Those who experience the benefits are, then, reasonably situated on the "right" side of the digital divide. Savolainen and

Kari (2004b) echo the notion of Internet as a preferred source for information seeking activities due to its "easy accessibility, currency, interactivity, and the broad repertoire of information" (p. 423). Similarly, van Dijk & Hacker's (2003) characterization of the digital divide presents four kinds of access barriers:

5. *Lack of elementary digital experience* caused by lack of interest, computer anxiety, and the unattractiveness of new technology ("mental access").
6. *No possession of computers and network connections* ("material access").
7. Lack of *digital skills* caused by insufficient user-friendliness and inadequate education or social support ("skills access).
8. Lack of significant *usage opportunities* ("usage access"). (pp. 215-216)

The primary barriers that participants discuss in this study, which contribute to their positioning in relation to the digital divide, pertain to lack of elementary digital experience and lack of digital skills. The United Nations (2014) speaks to the drawbacks of skills-based divides in relation to information seeking, and how, "the lack of ability to use the technology may stem from differences among Internet users in the capacity to efficiently and effectively find information on the Web" (p. 124). Novak et al. (2014) offer specific reasons that older adults face skills-based challenges, such as, "lack of familiarity with computers, lack of training, and hard-to-use systems" (p. 107).

Moreover, a person's positioning in relation to the digital divide impacts their ability to efficiently access government information and services, which are increasingly available online as e-government development progresses. However, it is clear through the experiences of a number of participants, such as Albert, Rose, and Adah, that "only clients who have access to ICT and are able to conceive the technical terms of the public sector domain can exploit the opportunity to access and use digital public services" (Veit & Huntgeburth, 2014, p. 46).

Use of technology to find information can facilitate efficient and effective information interactions, but only in cases where technology users are knowledgeable in using the technology and navigating digital environments such as the Internet. Many participants – regardless of their skill level – acknowledge the benefits of using computers and the Internet to search for information; the primary benefits that participants discuss in this study involve instant access to infinite amounts of information. All of this said, the experience of information seeking via technological means is disparate depending on one's technological skill level. While information seeking through use of ICTs may be a newer experience for many older adults, and reliance on ICTs for information and service provision continues to grow, there is one information medium that remains as a tried and true: print. In the following section I explore the nature of print information interactions and how older adults interact with print resources as part of governmental information seeking activities.

Print Information Interactions

Print information interactions refer to engagement with print materials such as newspapers, magazines, newsletters, print promotional materials, and other print publications for the purposes of information seeking. These sources are what Wilson (2000) refers to as "manual" methods of information seeking, as he advises, "In the course of seeking, the individual may interact with manual information systems (such as newspaper or a library), or with computer-based systems (such as the World Wide Web)" (p. 49). Participants discuss three significant factors that characterize their print information interactions:

- *The phonebook as a starting point:* A number of participants name phonebooks as starting point when looking for information. The current generations of seniors likely find phonebooks as a traditional, manual, and straightforward information resource. Moreover, the systematic information structure of phonebooks is arguably more familiar than the non-linear structure of web-based information.

- *Orienting information seeking:* A number of participants discuss daily, regular, or routine general information intake from mediums such as daily newspapers and monthly or quarterly magazines (such as CARP's *Zoomer* magazine). Participants are not looking for specific information, but often encounter information, typically in news articles, that is or may eventually be applicable to their situations.
- *Information invisibility*: Some participants express how important governmental information is often not visible, accessible, strategically advertised, or physically located in places or publications that ensure people find it. Information invisibility, therefore, refers to a lack of advertising or strategic placement of government information in publications or physical locations that citizens – in this case seniors – find useful.

Phonebook as Starting Point

Many participants initiate their governmental information seeking process with the phonebook; this is, perhaps, because phonebooks are a traditional and arguably straightforward and familiar resource to use when looking for information for generations that grew up using them. Moreover, the information structure of phonebooks is very different from the ways that participants characterize the structure of web-based information.

Charlotte walks me through her typical information seeking process and shares her starting point as the phonebook:

> *I typically start with the phonebook, but then getting a hold of somebody can be quite hard sometimes.*

Jane also indicates the phonebook – specifically the *Yellow Pages* – as her starting point:

> *I don't know where it is that the beginning is… you can go to the Yellow Pages.*

The *Yellow Pages* in this case seems like a safe and familiar starting point in a situation that lacks clarity on how to proceed with looking for information.

Bill, also makes a recommendation to start with the phonebook when looking for governmental contact information. Interestingly, Bill simultaneously suggests a more contemporary method of starting the information seeking process when he also suggests the Internet as a starting point. Bill advises,

> *I would've normally… you can start with the phonebook, or I'll start with the Internet.*

Similarly, Klaus admits that his first choice is the Internet to start information seeking activities, but he also names the phonebook as a suitable choice for initiating governmental information seeking activities. Klaus suggests,

> *Go to the Yellow Pages… you have these sections in the yellow pages… whatever colours the pages are for different government services. You've got everything at your fingertips there.*

The notion of having "everything at your fingertips" is likely a reference to the classic *Yellow Pages* motto of "let your fingers do the walking" (fadedjohn, 2011). However, this notion is also similar to Bill Gates' concept of "information at your fingertips" (oxkarrus, 2013; Zisman, 2011), which explores how advances in digital technology will enable us to access information anywhere at any time.[9] This is an interesting and, perhaps, generational, way of characterizing the phonebook, which is arguably one of the most traditional information resources available. The notion of having "everything at your fingertips" is arguably primarily associated with instant information availability in relation to the Internet and mobile computing devices such as smartphones.

It is clear that a number of participants start their governmental information search with the phonebook, but an aspect that requires further investigation is why participants choose to start with the phonebook. Additional probing is necessary to understand perceived benefits of the phonebook as well as why participants feel this is an effective starting point for governmental

[9] Bill Gates explored the concept of "information at your fingertips" during his keynote speeches at the 1990 and 1994 COMDEX (Computer Dealers' Exhibition) expos.

information seeking. While phonebooks are a resource that individuals arguably go to when they know exactly what information they need, encounters with hey information often occur when individuals engage with certain information mediums without specific information seeking goals. In the next section I explore the types print information interactions that occur when participants are not actively looking for information.

Orienting Information Seeking

Savolainen (2008) describes orienting information seeking as "daily media habits such as reading the newspaper before leaving for work, listening to radio news while driving home, and watching television news in a routine, sometimes absentminded way in the evening" as well as through "monitoring everyday events" (p. 83). A number of participants engage in daily, regular, or routine general information intake from mediums such as daily newspapers, monthly or quarterly magazines (such as CARP's *Zoomer* magazine). Participants are not looking for specific information, but often encounter information, typically in news articles, that is applicable to their situations or may eventually help them in some way.

Orienting information seeking is uniquely tied to print information interactions within this this study; this behaviour exclusively comes up when participants discuss their information interactions with print resources such as newspapers and magazines. However, engaging in this method of information seeking does not come up in discussions of human or technological information interactions. This approach to information seeking does not entail looking for specific information, but rather, information seekers are generally trying to stay generally informed about their surroundings and life situations. Conversely, when participants in this study visit an office in person or search online to obtain information, they are typically searching for specific information for a specific purpose or, as Savolainen describes it, problem-specific information (2008).

Participants reveal that they often encounter valuable information when engaging in routine orienting information seeking activities such as reading daily newspapers or other types of publications that circulate at fixed and regular intervals. Both Charlotte and Jack share how reading newspapers is a routine and daily information activity. While Charlotte indicates that she no longer reads the daily newspaper in its traditional physical paper format, it is a news medium she still engages with every day:

> *What I find is with all this computerization, nobody reads the newspaper anymore... I read the newspaper every day of my life, and now I read it on the computer because it's handy.*

Jack also shares,

> *I'd like to have my paper there, and I can eat my breakfast and read the paper.*

Further questioning is necessary to gain insight into why Charlotte and Jack opt to read the newspaper each day. Nonetheless, the fact that both of them engage in this information activity on a daily basis arguably demonstrates trust in this resource as well as newspapers' significant role in keeping older adults informed.

Conversely, Bill implicitly speaks to the significance and gravity of newspapers as a means of dispersing information, and he shares his opinion on how governments can ensure that information reaches citizens. Bill asserts,

> *If [governments] really meant business… we would have a provincial… and the federal for that matter… have their own newspaper… if [someone] doesn't take the* [Edmonton] Journal*, where [are they] going to get that information, see?*

Jane shares a situation demonstrative of Bill's implicit notion that information can effectively reach citizens through newspapers. Jane often refers to her caregiving responsibilities in relation to her ailing mother, and she describes finding out about a vital health and continuing care policy through reading the newspaper. Jane shares, *Placement in the hospital, we just learned about… it by reading the paper, these seniors that get put into hospital [while] waiting for a home.*

Unfortunately Jane was not aware of the policy at the time that her mother was awaiting placement into a long-term care facility, and she pursued other options. It is also important to note that the process of long-term care assessment often takes place at hospitals; if this were the case, it appears that Jane may not have received all of the information needed in the medical setting to effectively navigate this life transition. Interestingly, Jane is also one of the study's participants who is vocal about the role of medical professionals in dispersing information, and in this case, she discusses the importance doctors' offices as a key place for picking up print informational resources such as pamphlets, leaflets, or magazines, at doctor's offices:

I also go to my doctor, and… I pick up things like magazines… I go through that, I seek, well, what in the world do they have in there that we should keep that we need to know.

Newsletters and magazines also prove as useful information resources that participants use for orienting information activities. Both Jane also shares,

My daughter-in-law [who educates seniors on legal matters]… she brings home these kind of things, like, you know, newsletters… so we have a foot in.

During our interview, Albert often delves into his quests for audiology information. He shares that a monthly newsletter from a seniors' organization is a resource he uses to engage in orienting information seeking activities; this is how he finds out about audiology services, which are often linked to governmental benefits. Albert shares,

I always look through that sort of thing [referring to newsletters] as a matter of interest, and whenever I see something that has… potential benefit to me…I wasn't searching in particular for audiology help when I spotted this, but it was there and I thought…if and when the time comes, I will check this out.

Jack is also a regular reader of orienting print materials, such as newspapers and magazines. When I ask Jack about his methods for seeking or obtaining governmental information, he admits that he gets most of his information via his computer; however, he does not discount the effectiveness these kinds of print materials because of the information one may encounter when reading them:

> *I get a lot of information from* The [Edmonton] Journal*… and also from that CARP* Zoomer *magazine: a lot of good information in there.* MacLean's *magazine, and I get the Alberta magazines.*

The aforementioned situations involve participants encountering valuable information during routine or regular information seeking activities. Participants are not seeking specific information to mitigate a situation in these cases, but they are engaging with information resources such as newspapers, newsletters, and magazines to stay holistically informed about their surroundings and situations that may impact them in future. This method of information seeking speaks to the Orienting Information Seeking dimension of Savolainen's concept of Everyday Life Information Seeking. Participants' regular engagement with daily or weekly newspapers as well as monthly or quarterly magazines, and the implicit value of these resources as a result of the critical information that is often found in these materials, demonstrates the significance of this method of information seeking. However, while encountering key information may help individuals navigate current or potentially future situations or challenges, there are many cases where information is not found, and people ultimately do not benefit from engagement with these resources in situations where they cannot find key information that helps or benefits them. I explore participants' experiences with information invisibility in the following section.

Information Invisibility (Lack of Advertising and Public Awareness)

People can only use or follow up on information if they find it. Some participants express how important governmental information is often not visible, accessible, strategically advertised, or physically located in places or publications that ensure people find it. Information invisibility, therefore, refers to a lack of advertising or strategic placement of government information in publications or physical locations that citizens – in this case seniors – find useful.

Visibility, which is not exactly the same as advertising, is arguably just as important in terms of making people aware of pertinent information. Jane shares a situation that highlights a negative aspect of information invisibility, which potentially impacts her income level:

> *I didn't know that the government had started giving a pension for women that raised their children; nowhere have I ever seen that advertised, but is was on the [tax] return in very small letters, and if you're not looking for it… you don't see it… it was certainly not trying to bring it to your attention at all… there wasn't an announcement in the newspaper, there wasn't an announcement even on the pension cheques.*

Jane is likely referring to the Canada Pension Plan's Child-Rearing Provision. There are two key implications from Jane's statement: the first implication is that the aforementioned information that is hidden in small print arguably leads Jane to a governmental program that may help increase her income; the second implication relates to Jane's notion that advertising this information, to increase its overall visibility, in newspapers would likely raise awareness of the aforementioned "pension for women."

Rose, who resides in a seniors' residence, has the benefit of having a number of seniors-specific publications and information delivered directly to the residence office. Rose reaffirms the gravity of newspapers as a source of information for seniors while implicitly indicating the power of advertising in this medium. Rose advises that a primary way that she finds out about information sessions and presentations that deal with seniors' issues is through advertising in newspapers. Rose attends a number of these kinds of sessions to stay informed, and shares,

> *Advertising in these, here, papers. There's advertising in them. Usually if you… read the seniors papers, they have all kinds of things in there.*

Similarly, Adah also speaks to the need for advertising the availability of key governmental information. Much like Jane, Adah recommends both advertising the availability of information to increase awareness, and therefore visibility, but also recommends the strategic placement of information in settings, other than government offices, where information is bound to be seen:

> *Advertise more. And when you send out the applications for these programs… a reminder that there [are] these programs available… I think they could do more through pamphlets, and the seniors' paper or something, just to make [seniors] aware of the programs that are out there… They could also have [the information] at libraries. [Governments] could have… information packages or something… because a lot of people come to the libraries, or wherever else people are going to congregate… it could be in the seniors' magazine… there's a seniors' paper that goes out [referring to the* Edmonton Senior*].*

Jane, like Adah, elaborates on the importance strategic information placement in newspapers or publications that seniors read as well as physical places that seniors frequent. Jane shares,

> *It's the advertising part… [information] should be easy to access, and… putting different things that are very, very vital in examiners… or in a doctor's office that people go to… it should be easy to pick up and look at, and maybe take home with you.*

It is significant that Jane specifically mentions placing information in medical settings, which reveals an intersection between obtaining information from medical professionals through human information interactions and obtaining print information from medical offices. It is clear that Jane affords a certain level of credibility to medical professionals and medical settings; previous discussion of human information interactions shows how government information is likely a suitable fit for medical settings due to the often significant intersection between personal medical situations and related government programs. Jane shares,

> *If anybody brings anything that's pertinent or useful to seniors, [our doctor] has them all displayed and you can take them, and that's one way of getting [information] to the people.*

Moreover, when I ask Jane about what she would tell governments about getting information, she speaks to the importance of information visibility, and recommends,

> *[Information] should be attention-getting, and it should be readily available at places that seniors frequent… if nothing else, people get the neighbourhood papers… but… most people go to their doctor, so there could be a brochure that stands out.*

Each of these situations demonstrates the importance of information accessibility and visibility in order for people to find it, use it, and benefit from it. Jane, Rose, and Adah's stories demonstrate the importance of strategic advertising and physical placement of information, which helps to increase its visibility and the chances of people finding it. These stories also explicitly and implicitly show the significance of newspapers as an information resource and as an effective vehicle for making seniors aware of governmental information, programs, or services that may be available for their benefit. Further investigation is needed on why print information resources persist as important and beneficial with older adults, at least, with the present group of study participants.

Overall, many of this study's participants actively engage in both active and passive information seeking through interaction with print materials. Additionally, participants often encounter useful information during daily or general information seeking activities. This speaks to Savolainen's concept of Orienting Information Seeking (2008; 1995). Often, during orienting information seeking activities, participants "[bump] info information while carrying on a routine activity" (Erdelez, 1999, p. 25), which characterizes Erdelez's notion of Information Encountering. Erdelez stresses that "encounterers have a tendency to stop and "collect" useful or interesting information they bump into" (p. 26) akin to Jane's collection of pertinent newspaper article clippings and pamphlets. Print information, such as newspapers, magazines, and information publications remain a critical way that older adults obtain information. However, it is critical that information is visible in order to benefit the public.

Conclusion

This chapter examines the results of participant discussion in relation to governmental information seeking activities. Participants cite involuntary life transitions and events, experiencing life transitions or events by proxy, and financial planning as the primary factors that prompt their governmental information searches. When participants finally make contact with governments, they encounter government-centric jargon, which causes issues with information understandability and misinterpretation, as well as bureaucratic inefficiencies or, in other words, a lack of succinct and centralized information and service delivery. I subsequently explore participants' experiences with three types of governmental information interactions: human, technological, and print.

Human information interactions are collaborative, and therefore participants stress the importance of dealing with the "right" person to facilitate the information interaction. Participants deem body language as an important aspect of human information interactions due to its indication of dealing with the "right" or "wrong" person. Reliance on medical professionals for information and the emergence of human-technological hybrid information interactions are also factors that participants share as unique seeking governmental information via human information providers.

Next, I discuss technological information interactions; the quality of these information interactions is generally dependent on the participant's relationship to and skill level with ICT use and navigating digital environments unlike human information interactions, where the quality typically hinges on the quality and personal investment of the human information provider. Participants suggest that use of computers and the Internet instant access to infinite amounts of information.

Finally, the discussion on print interactions reveals that print is still an important medium that older adults engage in to obtain information. Many participants discuss using the phonebook as a starting point when starting a governmental information search. Many participants describe engagement in orienting information seeking activities such as reading daily or weekly newspapers and monthly or quarterly magazines. However, participants discuss the prevalence of information invisibility and the importance of making critical information visible and available in order to benefit those who need it.

CHAPTER 5
CONCLUSION

It is essential that governments make efforts to holistically provide information through multiple mediums and formats to ensure that we have the information we need to effectively proceed in dealing with or resolving our information gaps and situations when situations in our lives intersect with governmental departments. As technology continues to evolve and advance, so do the ways that we interact with information. However, many older adults – who came of age in eras when digital technology was not integrated into every aspect of their lives – encounter challenges as a result of the growing presence of computers and the Internet in everyday information activities.

This chapter concludes this research project; in this chapter I provide a summary of findings for all research questions, discuss practical implications of this research, and suggest areas of further or future research that emerged as a result of this study's data.

Summary of Findings

This study investigates the following research questions in order to achieve understanding of the nature of older adults' governmental information interactions:

1) How do older adults find information on governmental programs and services?
2) What are some of the factors that prompt older adults to seek information about governmental programs and services?
3) How do older adults feel about the options governments make available for both governmental information sharing and information submission?
4) What do older adults reveal about the nature of their governmental information interactions and the associated information retrieval methods and tools?

How do older adults find information on governmental programs and services?

Study participants find information on governmental programs and services in three primary ways: through human interactions via in-person visits to government offices or calls to government contact centres, through engagement with ICTs such as computers, mobile devices, and the Internet, and through reading print information in newspapers, government correspondence, or print publications such as program brochures, information booklets, or quarterly magazines. It is often when information is actively sought that older adults choose human or technological information channels in their pursuits of governmental information. Conversely, print information interactions usually occur in passive – or orienting information seeking – contexts when individuals engage in daily routine information seeking activities such as reading daily newspapers or encountering information in settings such as doctor's offices.

What are the factors that prompt older adults to seek information about governmental programs and services?

Participants describe three overarching prompts that initiate governmental information interactions: involuntary life transitions and events such as family deaths, changes in housing needs, medical situations, or homelessness; experiencing life transitions by proxy when one occupies the role of primary caregiver – and thereby going through information seeking processes on behalf of the person receiving care or assistance – for an elderly parent, spouse, or loved one; and, financial planning activities such as inquiring about publicly-administered pensions and benefits as a result of retiring from full-time employment or turning sixty-five.

How do older adults feel about the options governments make available for both governmental information sharing and information submission?

Participants interact with government information in three primary ways: through human information interactions, technological information interactions, and print information interactions. Each method of interaction has a number of key characteristics, benefits, and challenges.

Human information interactions are the most dynamic set of information interactions that participants discussed. It is critical that information seekers encounter the “right” person to facilitate the information interaction. Participants characterize the “right” person as flexible, knowledgeable and invested in closing the information gap. Body language and non-verbal cues also play an important role in communicating whether the information provider is invested in helping information seekers. Additionally, participants describe a reliance on medical professionals for dispersal of information about government programs and services; this is likely because consultation with medical professionals often intersects with critical life events or transitions that warrant information on available government services, such as in the case of securing a disabled parking placard. Finally, delving into the nature of human information interactions also reveals the growing instance of hybrid information interactions where a user hopes to seek information through human information professionals, but is, instead, directed to self-service technology; this mode of information service happens to align with many governments’ current digital government strategic direction with respect to client self-service. While the quality of human information interactions is typically dependent on the person in the information dispersal role, the opposite is true of technological information interactions, as the nature of these information interactions is dependent on the users’ skill level with and access to ICTs.

Technological information interactions, as described by study participants, entail both perception of and experience with instant access to infinite amounts of information due to the affordances of ICTs and the Internet. Study participants also reveal very disparate experiences with information seeking via technological means; typically, those with access to up-to-date technology and the necessary skill sets for navigating a digital environment (such as the Internet) share positive experiences with searching for government information via this medium. Essentially, these older adults land on the right side of the digital divide. Conversely, those participants who express limitations with their technological skills and familiarity express challenges and frustrations with finding information through use of ICTs, but nonetheless acknowledge benefits of using ICTs for information acquisition.

Finally, print information interactions involve use of the phonebook as a starting point for information seeking activities, engagement in passive orienting information activities such as reading daily newspapers, and difficulty in finding information – which I characterize as information invisibility – as a result of lack of effective advertising or the absence of strategic information placement.

What do older adults reveal about the nature of their governmental information interactions and the associated information retrieval methods and tools?

Study participants' experiences demonstrate telling realities about processes and challenges involved when seeking governmental information. Overall, governments present information across all channels – human, technological, and print – in terms that are not easily understood by members of the public. Governments often provide information using bureaucratic language or jargon, which ultimately creates barriers to information access due to compromised understandability. Participants also describe dealing with bureaucratic inefficiencies, particularly with respect to a lack of centralized information access. These two facets indicate areas for improvement and considerations that governments should make when producing and dispersing information that is meant for public consumption.

Implications for Scholarship

This study's research intersects with the areas of human information behaviour, the digital divide, and digital government (synonymously referred to as e-government). Many studies exist that examine each older adults general information-seeking behaviors, older adults' experiences with and usage of technology, the impacts of the digital divide on the general population, the digital divide and implications for older adults, and citizens' use of digital government information and services. However, unlike the former studies, this research study employs a holistic approach to investigating governmental information behaviours and interactions of older adults in relation to all available government information channels that participants describe accessing: human (includes in-person and telephone), technology-based, and print-based. This approach allows for a complete investigation of older adults' governmental information interactions while revealing connections – and disconnects – among the three primary mediums that are available for dispersal of government information. There are also a number of practical implications of this research for governments as well as for individuals and organizations that provide information to specific population segments, such as older adults.

Implications for Practice

This research provides insight into the nature of older adults' information interactions and their experiences when searching for and submitting governmental information. Results from this study can benefit multiple jurisdictions and organizations that specialize in delivering information, programs, and services to seniors. Moreover, many of this study's findings are not necessarily exclusive to the needs of older adults and are transferable when considering the general population as well as specialized populations such as persons with disabilities. For example, the importance of presenting information in plain language – instead of government-centric jargon – that is understandable to all citizens and the need for more centralized information services.

Additionally, identification of essential characteristics that human information providers should exhibit, such as demonstrating certain non-verbal cues or body language cues, may inform hiring practices for employment positions involving information provision. Nevertheless, this study's findings help to demonstrate some of the current challenges and service gaps in relation to governmental information services, such as the inconsistencies with human information interactions, and helps to identify areas for improvement, such as the potential need for stronger training on effectively helping information seekers or, in other words, "reference interviewing."

Moreover, it appears that governments should pursue greater public consultations and user studies with the public to ensure that information is understandable and visible in correspondence and that digital government self-service offerings are user-friendly; this is especially true given the current digital government trend of increasing self-service channels and recommending digital self-service as a first point of access. While government information that is meant for public consumption typically goes through rigorous communications reviews before it is made public, communications personnel are deeply entrenched within the bureaucracy; it is plausible that they cannot review and approach the information in the same way that, for instance, members of the public can.

Finally, obtaining information is significantly dependent on the people who are searching for it. For example, many participants rely on medical professionals for governmental information and referrals, and certain participants even mention acquisition of information in medical offices (such as pamphlets, brochures, etc.). Therefore, perhaps governments, particularly social and human services ministries, need to establish stronger connections with health and medical settings for placement of critical information. People from all walks of life visit physical settings such as medical offices, primary care networks (PCNs), hospitals, and clinics, and individuals often visit these settings in times of crisis or life transitions. Therefore, it is likely beneficial to distribute governmental information in these settings in addition to equipping an on-site staff member, such as a social or community worker, to provide information about and referrals to governmental programs and services.

Future Research

There are many avenues of further research that emerge from the present study. The current study results are partially a product of this specific historical moment in time and the lived experiences of the study's sample of older adults. However, the context of this research will inevitably evolve as new generations – with different personal, professional, social, and technological skills and experiences – become seniors. Future research avenues, from a citizen experience perspective, may consider how governmental information seeking may change as an increasing number of seniors become familiar with using technology for information-seeking activities. For example, what will older adults' governmental information interactions look like in ten years? What will these interactions look like in twenty years? Moreover, it is worth investigation why people go to governments for information when it is clearly a challenging organization to navigate? Prospective work may consider why citizens view governments and the information that governments produce as credible sources of truth. Furthermore, interview data and results in this study did not capture when and how participants knew if they had the right information and enough information to close their information gaps; investigating this avenue could provide insights into the level of success in relation to information-seeking activities. Other future avenues of research include investigations of public experiences with governmental jargon and how this influences or impacts governmental information-seeking activities, or pursuing a proactive investigation of public use of virtual chat to facilitate governmental information seeking. The latter research endeavor may investigate populations that are most likely to engage in online chatting, the types of governmental information being sought over chat, and considerations of privacy and other jurisdictional legislation that is in place that impacts the scope and type of information that can be exchanged via this medium.

Prospective research from a governmental perspective can investigate what steps and strategic directions governments are taking at the present time to meet the disparate information needs of all citizen populations, particularly older adults. While this study provides insight into some of the challenges that older adults face when navigating the governmental information terrain, further research can investigate the challenges that governments face when creating and dispersing information to multiple citizen segments and members of the public.

Finally, this study's scope specifically focuses on investigating the governmental information interactions of older adults in Edmonton, Alberta, which is a major urban centre in Alberta. A comparative study of older adults' governmental information interactions in rural settings may yield very different results. In my personal experience with government information deliver delivery, I observed that information seeking and dispersal in smaller communities is quite different due to the tight-knit nature of smaller communities, and the closer relationships between government staff, local service providers, citizens, and other members of the public overall.

Final Comments

A holistic understanding of older adults' governmental information needs offers insights on the current states of governmental information services and the nature of interactions between three overarching information service channels: human, technological, and print. Understanding the implications of this research at the present time informs enhancements and continuous improvement activities that governments can pursue in the imminent future so that members of the public can more effectively connect with and understand the governmental information that impacts their daily lives.

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APPENDIX ONE

CALL FOR PARTICIPANTS

U of A Grad Student would love to hear from you!
Research Participants Needed!

Are you aged 65 or older? Do you access governmental programs and/or services? If so, this study may be of interest to you!

Hello! My name is Sophia. I am a graduate student at the University of Alberta, and I am conducting a research study on the information experiences of older adults. I am conducting individual interviews in order to learn about your experiences when you search for information on governmental programs and services as well as when you send information to governmental programs and services.

This study seeks participants of ***age 65 and older***, and who are fluent in English, to share their experiences. Interviews duration is between 1 to 2 hour(s) (depending on your availability), and may be of great informational benefit to participants in terms of learning about various programs and services you may be eligible for as well as how to obtain the necessary information.

Interviews will be conducted in private spaces (such as in a conference room at a public library) in order to maintain participant privacy and confidentiality. If you are interested in participating in this study then I would love to hear from you. Please do not hesitate to contact me if you have any questions. I can be contacted in the following ways:

Telephone: 780-243-6785
E-mail: information.experiences.study@gmail.com

Thanks very much for your time. I look forward to hearing from you!

Sincerely,
Sophia

APPENDIX TWO
INTERVIEW GUIDE

Interview questions for adults age 65+:

→ Let's start with your age or age range if you prefer: (if exact age is not provided, ask if age falls within the following range: 65-70 / 71-75 / 76-80 / 80+)?

→ Would you say you regularly access information on either provincial or federal governmental programs and services?

→ Can you walk me through what a typical situation or path is for you to follow when you're trying to obtain information you are looking for?
(PARENTHETICAL as it will likely be answered in q#3 → How do you go about accessing information on governmental programs and services? (i.e.) do you phone the applicable information lines to requesting "hard-copy" mail outs, do you use Internet resources, or in-person consultation, etc?

- follow-up: where do you access this information? (i.e.) if you use a computer do use your own personal computer, or do you use a computer in a public location such as a library, or do you access this through a family or friend?)

→ What do you think of the options available for accessing information? (i.e.) do you think it's efficient or not efficient, easy or not easy, and why?

- basically: do the options that are currently available meet your information needs (ask this if the question is stalled)

→ Now I'm going to shift gears a bit and ask you about when you need to send information in; So What about sending information in? What do you think of the options available for sending information in? (i.e.) Just as an example, with the Government of Alberta's programs and services for seniors there currently aren't electronic submission methods set up; you can mail your information in, fax it in, or drop it off in person.

- (i.e.) Is the fact that there are no electronic submission methods set up an issue for you?

→ If you could tell a governmental policy-maker or public service professional one thing about getting information, what would it be?

→ If there was one thing the government(s) could do differently about information provision, what would it be?

→ What is your "take-home" question or message today?

Well, I guess I'll just wrap up by asking if you have any other comments you would like to include?

Thanks very much for your time. I appreciate your coming out to speak to me today.

APPENDIX THREE
INFORMED CONSENT LETTER

Study:
Information-Seeking and Information-Dispersal behaviors of older adults when accessing information on and dispersing information to governmental programs and services.

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011-61-2-6933-4092

Project Background and Purpose:
The goal of this project is to learn about the information behaviors or, in other words, the experiences of older adults regarding their processes in searching for and submitting governmental information. You are being asked to participate in this study so that I can learn about your experiences in searching for information on governmental programs and services (such as when you seek information on programs and/or services offered by the Alberta Government or the Government of Canada). I would like to hear what you think of the options that are currently available to you in finding and submitting information to governmental programs and services and why you feel this way. You have been recruited through a poster request for participants that you saw in a public place, such as a public library or a seniors social centre, or you may have heard about this study through word-of-mouth. Further, I am specifically focusing on the experiences of urban older adults, so I am restricting my recruitment to individuals from Edmonton, Alberta at this time.

The results of this study will be used in support of my thesis work for completion of the Master of Arts: Humanities Computing and Master of Library and Information Studies combined Graduate degree programs. Results from this study may also be used for conference presentation or towards publishing an article in an academic journal.

For your information: I am currently a Government of Alberta employee, but this will not affect my interaction with the older adults who opt to participate in this study. Please be advised that I am not conducting this study in association with the Government of Alberta. The Government of Alberta did not provide any funding for this study and therefore has no influence or input in my research. Your responses will not be shared until the study is complete, and even at that point I will ensure strict anonymity through assignment of pseudonyms. I want to assure you than your responses are kept anonymous

After this study is complete I hope to share insights with governmental employees in management or directorial positions regarding older adults' government information experiences. Persons employed in government may then understand the experiences of older adults and take them into account when governments develop future ways of providing and collecting programs and services information.

*Please note that interview questions do not deal with your experiences as a recipient or potential recipient of government programs and services or how you feel about governmental program or service benefits. This study strictly relates to the available options of information distribution and submission.

Study Procedures:
Your participation in the study will include answering questions about your experiences in searching for information and submitting information to governmental programs and services. If you participate in an interview, you will answer questions that I verbally ask you.

Types of data that I plan to collect are as follows:
Interviews will be guided in that I will ask you a few set questions, but I may follow-up either during or after our interview if I require clarification on any of your responses.

Interviews will last for approximately an hour. Interviews are conducted in person, and I may take notes of your reactions to certain questions since your reactions may provide further indication of your sentiments as you describe your experiences.

I will request your contact information (name and phone number) in order to confirm interview time and location with you as well as contact you if I wish to request a follow-up interview. Further, your contact information is needed so that you and I can make arrangements if you wish to receive a copy of your interview transcripts as well as a research summary following the study's completion.

Interviews will be conducted in a public place (such as a library or the University Campus) where there is the availability of private space (such as a small boardroom in a library).

Interviews will be audio-recorded so that I can write up a transcript to review after we complete the interview. Verbal consent will be recorded once the audio recording starts. If you wish to receive a copy of your interview transcript, this will be returned to you in any way you choose: in person, via mail, or via e-mail.

If you wish, I will contact you soon after the interview so we can go through your responses; this can happen either in person or over the phone. You have the right to change or omit any of your responses at any point before your interview responses are analyzed for the study.

Once the study is complete and I have analyzed interview responses I will contact you to advise you that a summary and analysis of the research data is ready if you wish to receive a copy. Please do not hesitate to contact me at any point throughout the study if you would like to know where I'm at with summarizing and analyzing data.

Benefits and Risks:
There are no significant or foreseeable risks associated with your participation in this study. There is potential for participants to experience positive or negative emotions – such as satisfaction (benefit) or frustration (risk) – during the interview while describing experiences. If I learn of anything during the research that may affect your willingness to continue being in the study, I will inform you right away.

Older adults may benefit from participation in this study if they would like to learn more on various available governmental programs and services they may be eligible for. Further, participation in this study may prove beneficial as we can discuss ways of effectively obtaining program and services information as well as program and service contact information, and how to effectively locate this information using publicly available resources.

I hope that the information I get from doing this study will not only provide me with a better understanding of the experiences older adults in their government information interactions, but I also hope that I can, in turn, discuss findings from the study with governmental employees in positions to yield suggestions and effect change, if necessary.

Voluntary Participation:
Please be advised that you are under no obligation to participate in this study. Your participation is completely voluntary, and you are not obliged to answer any questions despite participation in the study. You can change your mind and withdraw from the study at any time. If you choose to withdraw, I request that you let me know within a week of our interview. Please feel free to contact me at any point if you have questions or concerns about your participation.

Confidentiality and Anonymity:
Interviews will occur in private spaces, and research documents as well as anything that contains your name, phone number, and/or e-mail address (or any other personal information) will be securely locked

up in my personal desk, which only I can access. Electronic information files that directly identify you (i.e. an interview audio recording) will be electronically stored on the University of Alberta's secure server. Any unique situations that you describe in an interview that may link data directly back to you will not be included in research reports. A pseudonym will be used in place of your name in research reports that I may use towards public or published presentations of this project.

As the only researcher in this study I am the only person with access to your information (name, contact information, interview responses). I may use direct quotations from your interview responses when I present this material, however I will not link these responses to you in any way when I publicly present the findings.

Please be advised that anonymity cannot be guaranteed if you prefer to conduct the interview in a semi-public space where individuals you are acquainted with may see us talking (i.e. such as if we conduct the interview at a seniors centre in an office with windows).

In the event that you opt out of the study and you request that data is destroyed, then electronic files that directly identify you (i.e. an interview audio recording) will be deleted from my storage space on the University of Alberta's secure server, other non-identifying electronic / computer files (i.e. general notes) will be wiped of data then deleted, and paper files will be shredded.

Please note that the Research Ethics Board always has a right to review study data, so they may request to access research findings. The University of Alberta policy requires that I keep data for a minimum of 5 years following completion of the study. Study data will be securely stored for this five years period after the study is over as potential publications and presentations are yet to be determined. Research data will be destroyed once five years has passed. A completion date for my thesis is tentatively set for Spring, 2013.

Please note: The only exception to my promise of absolute confidentiality is that I am legally obligated to report evidence of (elder) abuse or neglect.

Further Information:
If you have further questions regarding this study, please do not hesitate to contact me, Sophia Hoosein, at 780-243-6785.

The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at 780-492-2615. If you have concerns about this study, you may contact the Research Ethics Office (780-492-2615) as this office has no direct involvement with this project. Thank you.