




“I’ve Got a Lot of Other Things I Do”: The Nuances of Digital Engagement among Older People

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Article

Cite this article: Wells, T., & Russell, E. (2024). “I’ve Got a Lot of Other Things I Do”: The Nuances of Digital Engagement among Older People. *Canadian Journal on Aging / La Revue canadienne du vieillissement* <https://doi.org/10.1017/S0714980824000266>

Received: 23 March 2023

Accepted: 26 May 2024

Keywords:

Older adults; aging; internet use; digital technology; qualitative; Canada

Mots-clés:

personnes âgées; vieillissement; utilisation de l’internet; technologie numérique; qualitative; Canada

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Abstract

As Western society becomes increasingly digitally dependent and many older adults actively engage in the online world, understanding the experiences of those who largely do not use digital technology in their daily lives is crucial. Individual interviews were conducted (pre-pandemic) with 23 older adults who, based on self-identification, did not regularly use digital technology, exploring how their experiences as limited digital technology users may have impacted their daily lives. An iterative collaborative qualitative analysis demonstrated three main themes: internet concerns, frustrations with digital technology, and conflicting motivators to use digital technology. Findings suggest that addressing digital concerns and providing effective digital skill learning opportunities may encourage some older adults to become more digitally engaged. However, as people, including older adults, can be uninterested in using these technologies, organizations and institutions should work to offer ways to support people of all ages who are not engaged online.

Résumé

Alors que la société occidentale devient de plus en plus dépendante au numérique et que les personnes âgées sont nombreuses à interagir dans le cyberspace, il est essentiel de comprendre les expériences de ceux et celles qui utilisent peu la technologie numérique dans leur vie quotidienne. Des entrevues individuelles ont été menées (avant la pandémie) avec 23 personnes âgées qui, selon leurs propres affirmations, n’utilisaient pas régulièrement la technologie numérique, afin d’explorer comment leurs expériences en tant qu’utilisatrices limitées de technologie numérique pouvait influencer sur leur vie quotidienne. Une analyse collaborative qualitative et itérative a mis en évidence trois principaux thèmes : les préoccupations à l’égard de l’internet, les frustrations liées à la technologie numérique et les facteurs de motivation contradictoires relatifs à l’utilisation de la technologie numérique. Les résultats indiquent que la réponse aux préoccupations relatives au numérique et l’offre d’occasions de formation en compétences numériques pourraient encourager certaines personnes âgées à s’engager davantage dans le numérique. Cependant, étant donné que certaines personnes, y compris les personnes âgées, peuvent préférer ne pas utiliser cette technologie, les organisations et les institutions devraient consacrer des efforts à offrir des moyens d’aider les personnes de tous âges qui n’utilisent pas les services en ligne.

Introduction

Concurrent with population aging, digital technology, including devices connected to the internet (such as smartphones, tablets, and computers) as well as digital applications (such as social media, e-mail, online banking, web browsing, and music streaming services), has become increasingly integrated into Western society. These technologies are important in supporting many elements of life, ranging from music to banking to shopping and beyond. Many older adults are themselves interested in using or continuing to use these technologies, but external influences, including outcomes of the COVID-19 pandemic, are also encouraging people to spend time online (Zapletal et al., 2023). Given these changes, the number of older adults who regularly use digital technology rose to 88% in 2020 (Sixsmith et al., 2022), showing that most older people have adopted these technologies into their day-to-day lives.

As the popularity of digital technology continues to rise, remaining completely offline is becoming increasingly difficult, carrying with it an underlying assumption that frequent digital technology use is typical and beneficial (e.g., Sen et al., 2022). A recent Canadian report suggests that digital technology use is no longer a choice but a fundamental need for older peoples’ social inclusion, supporting important activities of daily living such as medical appointments,

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community engagement, and recreational activities (Mullins, 2022). Organisations such as banks and public transit are also urging people to conduct services digitally (Reneland-Forsman, 2018), and even Canada's public broadcaster, the Canadian Broadcasting Corporation (CBC), announced a move towards exclusively online platforms (Woolf, 2023).

However, many older adults (approximately 12%) do not use digital technology daily (Sixsmith et al., 2022), and those that do go online tend to utilize these technologies with less frequency than younger people (Faverio, 2022). Even with COVID-19-related motivators, many older adults did not report a change in their digital technology use patterns (Williams & Dedeo, 2023). The common assumption that everyone is digitally engaged may further isolate those who do not often use digital technology, leading to a double exclusion (digital and social; Seifert et al., 2021) and even triple exclusion (physical, digital, and social; Xie et al., 2020) among some older adults. Furthermore, there may be specific advantages to sporadic online participation, which are not considered within the assumption that everyone is regularly online. Therefore, it is crucial to study the experiences of older Canadians who do not go online regularly, understand their motivations for limited online engagement, and explore creative ways to support them as our post-pandemic society continues to shift almost exclusively online.

Patterns of digital engagement

Before digital technology became widely used, it was unnecessary for most people to incorporate these technologies into everyday life, and it was not uncommon for people of any age to resist adopting these technologies (Hunsaker & Hargittai, 2018). However, patterns of digital engagement among all people, including older adults, have changed significantly as digital technology is now fundamental to daily life in the West, especially following the COVID-19 pandemic (Feldmann et al., 2021). Digital devices and applications are often used for a variety of activities, including communicating with loved ones (Hwang et al., 2023) and accessing online services (Zapletal et al., 2023). In contrast, 12% of older adults do not use digital technology in their daily lives (Sixsmith et al., 2022), 25% do not use the internet, and 55% do not use social media (Faverio, 2022). Even with pandemic-related motivators for use, the number of older adults who go online has only increased by approximately 2% between 2019 and 2021 (Faverio, 2022), which is below the average yearly increase in older users.

There are many reasons for limited digital engagement among people of all ages. Structural barriers, such as unequal access to high-speed internet (which may be magnified in rural communities) and costs associated with digital technology, can restrict online participation regardless of personal desires (Reneland-Forsman, 2018). Individual factors, such as limited digital skills (Hunsaker & Dobransky, 2017), negative attitudes towards technology (Gonzalez et al., 2015), and generational effects (Ramírez-Correa et al., 2023) may also play a role in the adoption of digital technology. People with limited digital skills can face challenges when using these technologies (Zapletal et al., 2023), and some older adults may not experience the assumed benefits of online engagement, such as maintaining independence, supporting aging in place (Sixsmith et al., 2022), or connecting intimately with family and friends (Williams & Dedeo, 2023), discouraging them from participating in these online activities. Studies have also found differences in the frequency of and motivations for digital engagement between generational cohorts (Faverio, 2022; Ramírez-Correa et al., 2023),

suggesting generational effects on digital engagement patterns. These generational differences may be influenced by one's familiarity with technology (Gonzalez et al., 2015), and as some older adults may not have used modern internet technologies during their careers, they may experience less familiarity with digital technology than other generations (Hargittai & Dobransky, 2017). Despite these structural and individual barriers, research emphasizes the heterogeneity of digital technology use among older adults and the need to consider the interaction of a variety of factors on an individual's digital engagement patterns.

Social impacts of digital engagement

Several studies have examined the role of online engagement in addressing the effects of the digital divide among older adults, including its ability to improve or worsen social factors such as loneliness, self-efficacy, and independence (Hunsaker & Hargittai, 2018). These findings suggest that although digital technology may be advantageous for some (hence its integral role in Canadian society), it has the potential to be harmful for others.

Effects of digital technology on loneliness. As family dynamics may change in later life, digital technology can facilitate convenient new ways for people to communicate with loved ones. For example, both older and younger internet users improved social capital through online interactions (such as those on social media; Sinclair & Grieve, 2017), and many older users reported that they had more ways to receive social connections and support than those who did not integrate these technologies into their lives (Millard et al., 2018). Furthermore, social and communicative online activities have been found to reduce the negative experience of loneliness that some older people may face (e.g., Balki et al., 2023). These results are especially relevant for those living in rural communities and small towns, who are often geographically separated from family members (Channer et al., 2021).

Although spending time online may reduce the perceived loneliness of some people, research has also confirmed the opposite effect. For example, text-based communication methods, such as instant messaging, were linked to less relationship satisfaction than face-to-face interactions or video calls among young adults (Goodman-Deane et al., 2016). Though this study focused on younger people, it is possible that these findings may extend to older adults, as many older people have reported a subjective separation between online and offline relationships (Sinclair & Grieve, 2017).

Effects of digital technology on independence and self-efficacy. The use of digital technology may also increase autonomy and self-efficacy among older people, especially as Western society becomes increasingly digitally dependent. People with physical and cognitive challenges may rely on family members or friends for informal support with everyday tasks, and given growing rates of youth outmigration (Channer et al., 2021), older adults in rural areas might especially feel the impacts of losing immediate social support. Maintaining one's independence can be a concern for some older people, and without the informal support needed to stay independent, self-efficacy may decline (Ryu et al., 2021). Those with more strongly developed digital skills have been found to have higher self-efficacy, as engaging in digital activities can reduce the need to depend on others for daily tasks, such as hobby-related activities, banking, shopping, and information-seeking (Hasan & Linger, 2018; Millard et al., 2018). These positive feelings may also be related to increased speed and accuracy in completing online

tasks (Hunsaker & Hargittai, 2018), as well as decreased dependence on others to access online services such as e-government and e-health (Reneland-Forsman, 2018).

In contrast, for the 12% of older adults who do not go online daily (Sixsmith et al., 2022), their autonomy may feel restricted in our largely online society, leading to adverse effects on self-perceptions. Those who are less digitally skilled may encounter usability problems when attempting to go online (Millard et al., 2018), and older adults with limited experience with digital technology may feel uncomfortable when trying to complete online tasks. Moreover, following the COVID-19 pandemic, many organizations, such as banks and retail stores, have shifted to strongly encouraging and even incentivizing people to engage with their organization or business online, which may further restrain autonomy for those who are not digitally proficient (Zapletal et al., 2023).

Impacts of overusing digital technology

In the Western world, remaining completely offline is becoming almost impossible as government services, news sources, and essential services shift mostly or exclusively online or are difficult to access on paper or in person. Previous research often suggests that frequent online engagement is typical and beneficial – indeed, fundamental – to older peoples' social inclusion given its role in supporting social and instrumental activities both before, during, and after the pandemic (e.g., Mullins, 2022; Reneland-Forsman, 2018). However, the normalisation of digital engagement may increase people's dependence on digital technology as well as perceived social exclusion when not online. Furthermore, there may be benefits to intentionally limiting digital engagement.

It is possible that people of all ages may be overusing digital technology, and researchers have often compared problematic internet use to an addiction, as it involves obsessive, uncontrollable digital technology use that hinders daily functioning (Dahl & Bergmark, 2020). Problematic internet use has become increasingly widespread and can lead to undesirable impacts on one's social life and psychological well-being (Sönmez et al., 2021), diminishing some of the positive effects of digital connection and leading to perceived social exclusion when unable to participate online (Seifert et al., 2018). This perceived exclusion may have been heightened during the COVID-19 pandemic as in-person interactions were restricted and more and more services moved solely online. Fear of missing out on the digital world may further perpetuate a cycle of social exclusion and digital dependence for many. Studies have not yet examined internet overuse in the context of older people; however, these negative outcomes could extend to any age population, including older people, as older adults are not immune to mental health problems that may accompany digital technology overuse.

Though not widely explored, there may also be specific advantages to intentionally limiting digital engagement. In common and academic discourse, limited digital technology use is often discussed in connection with social isolation, emphasizing the positive impacts of digital engagement in fostering social connections among older adults (Kuntsman and Miyake, 2019). Yet, digital engagement does not always come with social fulfillment. Although social networking sites may have been beneficial for maintaining social connections among older adults during the pandemic, digital communication did not create the same sense of social fulfillment as in-person interactions (Balki et al., 2023). Similarly, many older adults reported that social media played a minimal role in impacting their level of intimacy with friends and family during the

pandemic (Williams & Dedeo, 2023). "Digital detoxes" are also on the rise, with many people beginning to intentionally limit their online engagement to challenge the negative effects of a ubiquitously digitized society (Ghita & Thoren, 2021), suggesting positive outcomes related to intentionally limiting digital technology use.

With the growing popularity of digital technology, previous research often presumes that frequent online engagement is beneficial and expected in today's society for people of all ages, emphasizing the positive outcomes of digital technology use on social support, independence, and perceived self-efficacy (e.g., Sinclair & Grieve, 2017). However, the current study sought to challenge this assumption, as there may be unknown advantages of choosing limited participation in the online world – in this instance, for older adults. Research often focuses on older people who are digitally engaged, as most (88%) are online daily (Sixsmith et al., 2022), and neglects the outcomes for those 12% who are not. Therefore, the current study aimed to address this gap within the aging and technology literature by exploring the experiences of older people who self-identified as limited users of digital technology. Within the context of today's technologically engaged society, our study investigated: (1) the reasons why older participants, who self-identified as limited users of digital technology, have not adopted these technologies into their daily lives, and (2) how limited online participation has influenced the lived experiences of older participants.

Research design and methods

Study design and context

Using a qualitative approach, we examined the experiences of older adults who self-identified as limited users of digital technology. Within the context of our study, the use of the term "limited" encompasses both self-identified non-users and occasional users of digital technology. Reference to "the internet," "digital technology," and "digital devices" (herein collectively referred to as "digital technology") refers to the use of social networking platforms, e-mail, Google or other search engines, online banking, video streaming services, and any other activities that involve access to the internet, as well as devices such as smartphones, computers, and tablets that are connected to the internet. A qualitative approach was beneficial for this study as it allowed for examination of the unique lives of the participants by providing descriptive data (Howitt, 2016). We also employed a qualitative, exploratory approach as this topic has not been extensively examined in the context of older adults who spend limited time online. Most research focuses on the 88% of older adults who are digitally connected on a daily basis (Sixsmith et al., 2022) but neglects to address the experiences of the 12% who are not. Hence, this study required a flexible, exploratory approach to uncover the distinct experiences of this population.

This study, including data collection and coordination, was conducted on the treaty and traditional territory of the Mississauga Anishinaabeg in the City of Peterborough and the Village of Lakefield, both located in central Ontario, Canada. As of 2021, Peterborough's population of older people accounted for 24% of the town's total residents (Statistics Canada, 2022a). In Lakefield, approximately 40% of the population is above the age of 65, which is over double the percentage of older adults nationwide (19%; Statistics Canada, 2022b; 2022c). The population demographics of Peterborough and Lakefield likely extend to other small communities in Canada, given that rural areas have disproportionately quicker rates of population aging than urban places (Channer et al., 2021).

Participants and recruitment

Following approval from Trent University's Research Ethics Board, adults who were 65 years or older, able to communicate effectively in English, and self-identified as limited digital technology users were recruited for this study using purposive sampling. Recruitment occurred between November 2019 and February 2020, with recruitment methods targeting those who "used the internet only occasionally." Recruitment was publicized through physical (paper) posters at nine locations, including pharmacies, recreation centres, and public libraries, chosen because of their attractions and activities targeted towards older adults. Recruitment was also publicized in the Mature Living column of a local newspaper. These recruitment methods were used rather than online posts or website advertisements to reach those who spend limited or no time online, and printed advertisements encouraged potential participants to telephone the researchers at their convenience. To reach additional participants, a member of the research team shared about the study at an information session for older adults at a local public library. This library session revolved around avoiding scams and frauds, making it specifically relevant to study recruitment. We also used snowball sampling and targeted recruitment through the research team's professional contacts to gather participants. The addition of these recruitment methods allowed the researchers to build or develop rapport with potential participants, which may have increased their comfort with taking part in the study.

Regardless of their quantitative frequency of digital engagement, our study population includes those who perceived themselves as limited digital technology users. We allowed participants to individually interpret "limited digital technology use" considering the online engagement patterns of those around them, including friends and family members of all ages. To clarify the inclusion criteria (i.e., those who "used the internet only occasionally"), we reminded participants of the purpose of the study before beginning qualitative data collection. The interviewer encouraged participants to discuss their experiences with infrequent or limited digital technology use, keeping in mind a broad range of devices, applications, and websites, such as computers, smartphones, tablets, video calling apps, social networking sites, or video streaming sites. For some participants, limited digital engagement meant going online several times per week or more, while others used these technologies a few times per year or less. Though digital engagement varied between participants, it is important to note that no participants engaged in digital technology multiple times a day, every day, and those who used digital technology daily were using it in a limited fashion (e.g., checking email or responding to a few text messages). Participants who did not view themselves as limited digital technology users, or those who ultimately had integrated digital technology into their daily lives, were excluded from this study. Based on this criterion, one interview was excluded from our final analysis, as the participant disclosed that he perceived himself to be a frequent user of digital technology. In total, 18 interviews (13 individual and 5 pair interviews) with 23 participants were included in the analysis (19 females and 4 males). Demographic information for all 23 participants is presented in Table 1.

Data collection and analysis

Data collection occurred between December 2019 and February 2020, just prior to the first wave of COVID-19-related lockdowns in Ontario, Canada (March 17, 2020; Office of the Premier, 2020). With informed consent, we gathered demographic information

Table 1. Participant demographic characteristics

Participant number	Age range	Gender	Place of residence
1	90+	Male	Peterborough
2	80–89	Female	Peterborough
3	70–79	Female	Lakefield
4	70–79	Female	Peterborough
5	70–79	Female	Peterborough
6	70–79	Male	Peterborough
7	70–79	Female	Peterborough
8	80–89	Male	Peterborough
9	70–79	Female	Lakefield
10	80–89	Male	Lakefield
11	65–69	Female	Lakefield
12	90+	Female	Lakefield
13	80–89	Female	Lakefield
14	70–79	Female	Lakefield
16	90+	Female	Lakefield
16	70–79	Female	Lakefield
17	80–89	Female	Lakefield
18	80–89	Female	Lakefield
19	90+	Female	Lakefield
20	80–89	Female	Lakefield
21	80–89	Female	Lakefield
22	80–89	Female	Lakefield
23	90+	Female	Lakefield

(i.e., age range and gender) using a short demographic form. Then, we collected qualitative data using semi-structured interviews that sought to hear the unique experiences of older adults whose digital technology use was limited. To emphasize the inclusion criteria, opening questions asked participants to describe their experiences with digital technology, considering the level of digital engagement of those around them. Key questions highlighted participants' motivators for limited digital engagement (e.g., "You said you used digital technology occasionally, why is this?"), its impact on their daily lives (e.g., "In a society that is becoming progressively dependent on digital technology, how does your limited use influence your daily activities or lifestyle?"), and their opinions of others (e.g., "As someone who does not use digital technology often, how do you perceive those who do?"). Probing questions were asked throughout to elicit further discussion when necessary. The interviews occurred in various settings, including participants' homes and coffee shops, to increase participants' comfort levels and ecological validity. We invited participants to complete the interview individually or in pairs with a friend, spouse, or anyone they felt comfortable with. All 18 interviews (13 individual and 5 pair) were digitally audio-recorded with written and oral consent from the participants. Interviews ranged from 10 to 55 minutes in length and lasted an average of 30 minutes.

The 18 interview recordings (13 individual and 5 pair) were transcribed verbatim during the data collection phase to ensure familiarity with the data, and participants were anonymised using participant numbers. The transcripts were analysed using an

iterative collaborative qualitative analysis (ICQA; Russell et al., 2022) to identify consistent key themes. The transcripts were reviewed thoroughly, and preliminary codes were identified to create an initial code manual. We tested these codes by coding the first five pages of five different transcripts, and codes that overlapped were collapsed and refined. A draft code list was developed to capture the most prominent themes within the data and consisted of six codes (privacy, usability, disinterest, personal contact, external influences, and psychological effects). Each code was accompanied by a unique and comprehensive description. The draft code list was further validated with second coding from another researcher with similar knowledge of ICQA but who was not involved in this study to maximize external validity and minimize bias from within the current study team. Following this review, the code names remained the same, with minor changes to the code descriptions. Finally, the refined code list supported the process of coding each transcript, line by line. We then organised data tied to each code into individual code output documents (one output for each of the six codes), which included relevant quotes and detailed descriptions of preliminary findings from each code. Each code output document was then analysed holistically to identify the overall concepts presented within the data (with supporting quotes selected), leading to the emergence of the three key themes identified in the Findings section.

Findings

Three main themes emerged from the data relating to participants' reasons for limited online activity and its impact on daily life. These themes were: (1) internet concerns, which refer to worries about privacy, unauthentic personal connection online, and stereotypes of younger users; (2) frustrations with digital technology, which include limited digital skills, physical barriers to online engagement, and dependence on others for assistance with digital technology; and (3) conflicting motivators to use digital technology, encompassing external demands to go online despite personal disinterest in doing so.

Theme 1: Internet concerns

Our analysis showed that apprehension due to internet concerns was one of the primary reasons that participants did not adopt digital technology into their daily lives. This led to the development of three sub-themes: (a) privacy concerns, which refer to fears about safety, security, information access, hacking, and scams; (b) unauthentic personal connection, including disingenuous personal interaction online and a preference for face-to-face communication; and (c) stereotypes of frequent digital technology users.

Privacy concerns. Privacy fears discouraged many participants from spending time online. A major concern was data exposure, as several participants felt that their information was not secure once shared online. For some, this led to avoiding various online activities, such as banking or social networking, even when participants had a genuine interest in engaging in these activities. For example, Participant 5 noted: "I mean, it would be really nice to be able to see the pictures of our grandkids, but then again, anything that's put on there could be exposed and could be putting them in danger." In some instances, these concerns derived from first-hand experience with hackers, scams, frauds, and unsolicited, sometimes disturbing, messages which greatly discouraged them from posting or sharing their data online. For example, Participant 4 expressed that she had

become increasingly cautious with her online engagement, especially when opening messages and links. She stated:

I'm very careful now because in the past, I've had a situation where somebody who was phishing for addresses sent me an email, and it was almost the same as the name of somebody in my contacts. [...] So, I now look very carefully to make sure that it actually is that person before I open it.

Other participants had similar encounters with data breaches that compromised their personal information. Interestingly, Participant 7 received a phone call during the interview from an unknown number which she instantly suspected to be fraudulent, since she and her husband had recently been receiving unsolicited calls and e-mails. Our analysis showed that these negative experiences deterred many participants from regularly using digital technology.

However, even those who had not directly encountered these issues were concerned about data privacy. Several participants were advised by others in their networks to limit the amount of information they disclosed online, cementing concerns of data security. Participant 16 explained that a friend warned her "don't put anything on [the internet], ever, that you don't want the whole world to know." Though she stated that this exchange had occurred almost 35 years ago, she still worries about the security of her data and limits the information that she shares online. Other participants learned of online security issues through news sources – for example, Participant 6 reflected on the 2017 Equifax hacking, which affected the personal data of hundreds of millions of people in Canada, the United States, and the United Kingdom (Dangerfield, 2017), and the 2019 LifeLabs information breach, which exposed the medical information of over 15 million Canadians (CBC News, 2019). Participant 6 explained that if the data of large corporations and governments are not secure, he fears that his information will not be safe online either. Privacy concerns emerged as one of the most prominent subthemes in the data that majorly deterred people from using digital technology frequently, suggesting that increasing the perceived or actual security of these technologies may encourage hesitant older adults to spend more time online.

Unauthentic personal connection online. An additional reason for limited digital technology use was a perceived lack of personal connection. Though some participants found these technologies useful for maintaining contact with friends and family, many felt that online interactions were impersonal and less intimate than face-to-face exchanges. Participant 6 described these interactions as "one step removed," accurately capturing the feelings of many other participants. Some emphasized the need for non-verbal social cues, often unavailable through text interactions. For instance, although Participant 16 stated that she periodically uses the internet to keep in touch with family, she explained: "I don't like it. [...] I think things can be misinterpreted because you don't hear the intonation of somebody's voice that you're talking to." Others also felt that a lack of additional cues may produce social misunderstandings.

Even participants who enjoyed occasionally using these technologies to keep in touch with others preferred face-to-face conversations, and most voiced a subjective disconnect between digital interactions and in-person communication. For example, Participant 20, who shared that she used her iPad to maintain contact with her family, explained that she is not opposed to using digital technology to communicate with others. However, she "[likes] to

have face-to-face [interactions] with people.” This opinion extended to most other participants and suggests that older adults who do not generally prefer using digital technology may be more inclined to engage in in-person interactions.

Furthermore, participants viewed this lack of personal interaction as problematic for regular users of digital technology. Many expressed that frequent online engagement has led to a decline in communication skills, which was especially concerning for participants when discussing the effects of these technologies on youth. Participant 13 stated that although her grandson spends hours chatting with individuals online, “kids don’t interact or talk to people like they used to because they’ve got the computer.” Others had similar concerns, as they have seen younger people prioritise texting over in-person communication: “[...] They’ll be sitting together, and they’re a couple, but they’re not talking to each other. They’re just going like this (texting gesture). [...] I think that’s a problem” (Participant 11). Participants who had positive attitudes towards digital technology and desired to become more digitally engaged also agreed that overusing these technologies could lead to negative social outcomes.

Despite some participants valuing digital technology for connecting with friends and family, our findings show that many participants perceived online communication to be different from, and worse than, face-to-face interactions. Particularly, most felt that online communication was less fulfilling than connecting with people in person, regardless of overall attitudes towards digital technology, and believed that the absence of in-person socialisation may be detrimental to youth as online communication becomes increasingly widely used.

Stereotypes of frequent users of digital technology. Participants expressed additional concerns for frequent technology users, especially younger users, often motivated by stereotypes of younger peoples’ relationship with technology. Many participants were fearful about how regular digital engagement would affect youth and shared an unfavourable view of the long-term effects of frequent digital engagement, such as digital dependency and reduced critical thinking skills. Some participants also perceived digital technology to have addictive properties, affecting both the minds and bodies of younger people. Participant 6 stated:

[...] Wherever I go, I see young people are constantly on their devices. I have a feeling that the way information is being processed in the brain – it’s reconfiguring how the synapses work, how the brain is functioning. It’s almost like a...I don’t want to say a drug, but it’s a need to be constantly finding out what’s going on. It seems addictive. You take a phone away from people, young people especially, and it’s like withdrawal.

Many believed that these addictive properties led frequent users, particularly youth, to rely on these technologies for simple, everyday tasks, which most participants viewed as negatively influencing younger people’s abilities to focus, learn, and think critically. Some believed that because of digital technology, children are becoming less intelligent: “[...] [they] can’t make a sentence. They don’t know how to spell” (Participant 10). This stance was shared by participants who had both positive and negative views of digital technology. For example, Participant 23 regretted not learning to use the computer when she was younger; however, she shared the opinion that frequent users of digital technology are not critical thinkers: “I guess [the internet] is really more beneficial, but it stops people from thinking for themselves a lot.”

For some, these negative stereotypes of frequent users encouraged participants to avoid online activities themselves, and though a few participants were interested in joining social media sites, some feared becoming reliant on them as they believe to have happened to others. This concern was captured by Participant 13: “I think some people just get addicted to it. I know my grandson did.” Similarly, Participant 15, stated: “[...] I’m thinking of going on Facebook because I’m finding I’m missing out on a lot, [...] I just don’t want it to be taking over my lifestyle. I’ve got a lot of other things I do.” These quotes, including the title quote that captures the essence of our study’s findings, show that despite desires to reap the benefits of digital technology, stereotypes and fears kept several participants offline.

Theme 2: Frustrations with digital technology

Frustrations with digital technology kept participants from adopting it into their daily lives, including difficulties encountered due to limited digital skills or physical barriers. As a result, many felt the need to depend on others for support with online engagement, further deterring their use of digital technology. Three sub-themes emerged from this finding: (a) limited digital skills, (b) physical barriers, and (c) dependence on others.

Limited digital skills. Several participants expressed difficulty using or understanding digital technology and a lack of confidence in their digital skills, with many alluding to the complexity or “complicated” nature of these technologies. Using digital technology was seen as laborious, requiring patience due to the amount of difficulty experienced when going online. Participants also felt that they often made mistakes and became anxious when trying to navigate digital technology. These difficulties were large disincentives for online engagement, since participants felt that digital technology should be efficient: “[...] it’s ease of use, and if it’s difficult, I don’t bother” (Participant 6). Even those who previously used digital technology in their careers or completed digital skills training courses felt unprepared to independently use these technologies. Participant 2 stated that although she used a computer in a previous job, she felt she needed to be “retrained” to use modern digital technology after having not used it for many years. Given the frustration associated with limited digital skills, one participant wanted to enroll in a digital training course but found that there were none that addressed her specific needs: “I wish there were courses on how to use your Apple products” (Participant 4). Similarly, Participant 3 found a local training course but felt that it was not as beneficial as she would have liked. She stated:

There were some classes at the library [...] and I went to some of them. [The instructor] was very nice, and she helped me a little bit, but I didn’t really know what to ask for. She would say, like, ‘What do you want to do?’ Well... I didn’t know. [...] I’m just sort of stuck, you know?

Since these training courses were not always available or useful, along with the frustrations associated with using these technologies, some participants gave up on trying to learn digital skills, opting to complete tasks in person or over the telephone as necessary.

Physical barriers to using digital technology. Frustrations with digital technology were also derived from physical barriers that can be associated with aging, such as arthritis and impaired vision. Irrespective of digital skills, participants reported difficulties using touch screens on smartphones and tablets, as some felt that they were excessively sensitive and inconvenient to use. This was

also seen in participants' preferred devices, as many tended to use computers to go online. However, computers were not always well-suited for participants, either. For instance, Participant 6's arthritic hands made typing a laborious task: "Sometimes I'm sending an email and I hit the wrong key because I have very bad arthritis. I can't close my fingers, so typing is difficult. [...] I have a very low tolerance – I frustrate easily with that." Additionally, vision problems made computer and smartphone use challenging; for example, Participant 8 found it difficult to see small text on the screens. These findings indicate that participants were often discouraged from using digital technology since devices and applications are not often designed to accommodate the physical challenges faced by many older adults, and people may be unaware of built-in accessibility tools (such as font customisations and voice to text) or find them difficult to navigate.

Dependence on others to use digital technology. Difficulties with digital technology led many participants to depend on others to complete online tasks for them. Participants often relied on spouses, children, or grandchildren to carry out online tasks because they were unable to complete these activities confidently on their own, such as online browsing and texting. Participant 11 stated: "[my husband has] embraced [digital technology] a lot more and doesn't get as frustrated [...] if I really need something and I can't do it myself, I ask him to look it up." This dependence on others for digital engagement was not always as straightforward and sometimes led to feelings of reduced autonomy. For instance, Participant 2's children used digital technology for her "on their time, on their computers," which became quite frustrating as she had to work around their availability. Dependence on family members extended to many others, including Participant 23, who felt particularly regretful: "I shouldn't have let [my computer skills] go. [...] Because this way, I'm dependent on my children." Although some people had little to no desire to use these technologies for personal activities, increased independence was an incentive for acquiring digital skills, and having to rely on others for necessary online matters acted as an additional barrier to autonomy.

Theme 3: Conflicting motivators for online engagement

Beyond the concerns about and barriers to using digital technology, many participants experienced conflicting motivators for online engagement. Disinterest was a distinct yet related reason for limited digital technology use, and in almost every interview, there was a clash between participants' personal desires to go online and external motivators encouraging digital engagement. Therefore, this theme includes two sub-themes: (a) internal motivators and (b) external pressures.

Internal motivators for limited online engagement. A few participants expressed internal motivation to engage online. Some were eager to use digital technology to connect with family, facilitate their hobbies, engage in lifelong learning through researching personal interests, play online games, or send emails to loved ones. However, although some people recognised the potential benefits of digital technology, there was a clear preference for offline activities, and many were disinterested in going online. For example, Participant 9 stated: "We prefer going in and speaking with the person. I like to see the little piece of paper in front of me." Disinterest in online activities was a strong motivator for limited online participation and appeared to be a distinct yet related finding, as participants' experiences with internet concerns and frustrations with digital technology significantly reduced their

interest in future online interactions. Several participants felt they were too busy prioritizing personal obligations, hobbies, and face-to-face interactions to spend time online, while some simply did not enjoy digital activities: "[...] there are other things you can do that I prefer because I think that my time can be better spent doing something else" (Participant 6). Similarly, for some, learning computer skills just "didn't appeal" (Participant 11) to them. Feelings of disinterest, whether distinct from or related to other motivators for limited engagement, extended to most participants, indicating that they generally did not wish to spend time online, notwithstanding digital skills or attitudes towards digital technology.

External pressures to use digital technology. Despite having little to no interest in using these technologies, many participants felt pressured to go online, often undermining their freedom of choice and independence. Some were advised to use digital technology to enhance social contact. For example, Participant 3 began using the internet because her friends suggested that it would help with loneliness: "I was alone here, so the people I knew were saying 'you should get yourself something and then we'll help you' [...] So, I did. I got something." Comparably, Participant 2's family "insisted" that she get a smartphone in case she has an emergency when she is away from home. As services are increasingly digitally based, some participants also believed that they may be forced to begin regularly using digital technology, even though they had no genuine desire to do so. For instance, Participant 17 explained that she felt pressured to utilise online banking despite her privacy concerns. Similarly, Participant 20 stated that banking advisors often "try and talk you into [online banking]." Some participants also thought that if they did not have a close family member to assist with online activities, they would be forced to incorporate digital technology into their daily lives. Participant 23 stated: "If I didn't have [my daughter], I'd definitely have to learn." Although most participants were disinterested in digital engagement, various external factors pushed them to go online, emphasizing a discrepancy between personal desires and societal expectations related to digital engagement among older adults.

These findings provide insight into participants' reasons for limited online engagement and its impact on daily life. Participants appeared to have various concerns regarding digital technology that discouraged them from going online, such as privacy concerns, perceived unauthentic personal connection, and stereotypes of younger users. Frustrations with digital technology also deterred online engagement, including limited digital skills and physical barriers, often leading participants to depend on others for help when going online, which restricted their autonomy. Distinct from yet related to these concerns, participants were disinterested in online activities and did not feel inclined to learn digital skills, yet there were often external demands to do so, demonstrating conflicting motivators for digital engagement among participants.

Discussion

Despite the ageist stereotype that older adults are not digitally proficient, the majority use digital technology daily (88%; Sixsmith et al., 2022). However, there remains a distinct and important population of older adults who do not go online regularly (at least 12%). The findings of the current study support previous research showing that older people are heterogeneous in their online engagement patterns with a wide variety of reasons for not adopting digital technology into their daily lives (e.g., Ramírez-Correa et al., 2023). Our findings show that, among a sample of

older people who self-identified as limited users of digital technology (prior to the onset of the COVID-19 pandemic), many older adults are apprehensive about online activities, worrying about security and unauthentic personal connection. Stereotypes regarding younger peoples' digital engagement also troubled participants, impacting their desire to go online. In addition to their concerns, limited digital skills challenged many participants when trying to use digital technology, leading them to depend on others for online tasks. These findings support the need for organizations and institutions to identify ways to address older peoples' digital concerns with current and balanced information regarding digital skills, online privacy, and the impacts of frequent online engagement. However, there were also conflicting motivators for online engagement, and although many were disinterested in using digital technology, they often felt external pressures to go online. Therefore, there is also a need for organisations and institutions to provide accessible options for those who do not use digital technology in their day-to-day lives.

For many, concerns regarding digital technology discouraged participants from engaging in online activities, such as online banking and social media. Privacy concerns and anxiety regarding information security are common among older populations, deterring regular use of digital technology (Balki et al., 2023). These worries emerged across our analysis and extended to participants who expressed both positive and negative attitudes towards digital technology. In fact, several people were eager to go online; however, privacy concerns prevented them from doing so. Though data for our study were collected prior to the COVID-19 pandemic, this finding aligns with research conducted during the pandemic (e.g., Balki et al., 2023), showing that these concerns persisted even during a time when digital engagement was highly encouraged and, for many, required.

Face-to-face communication, given the belief that it provided more intimate personal interactions than online communication, was also preferred among participants before and during the pandemic. Research shows that social media played a minimal role in older peoples' levels of intimacy with friends and family during the pandemic (Williams & Dedeo, 2023), and even with COVID-19-related restrictions, many older adults did not increase their online engagement (Zapletal et al., 2023). Generational effects may be at play here, as Baby Boomer and Silent Generation cohorts place varying emphasis on the role of social influences on digital engagement (Ramírez-Correa et al., 2023). As many people from these cohorts may not have engaged with digital technology during their careers, there may be reduced familiarity with these technologies (Hargittai & Dobransky, 2017), thus forming a perceived separation between online and in-person communication (Sinclair & Grieve, 2017). However, since many people increased their frequency of digital communication during the pandemic lockdowns (Sixsmith et al., 2022), it is possible that increased use of these technologies may have impacted some older peoples' comfort with digital communication, therefore influencing their digital engagement patterns.

In addition to their concerns, many participants felt frustrated when using digital technology due to limited digital skills and physical barriers, hindering their ability to use these technologies effectively. This led to limited digital engagement for many, including those who were interested in using these technologies. Limited digital skills appear as a disincentive to technology use throughout the literature (e.g., Hunsaker & Dobransky, 2017). However, contrary to these findings, research conducted during and after the COVID-19 pandemic indicates that perceived difficulty of use did

not play a role in older peoples' acceptance of social media (Ramírez-Correa et al., 2023), possibly due to some older peoples' pandemic-motivated improvement in digital skills (Zapletal et al., 2023), creating a ceiling effect. More data are needed to better understand older adults' experiences with digital literacy during and since the COVID-19 pandemic.

Additionally, many older adults expressed negative biases towards those who are frequently digitally engaged, especially youth. They perceived frequent digital technology use to negatively impact younger people, specifically their social skills, face-to-face interactions, and critical thinking skills, often reducing frequent digital technology users to a homogenous group. These views even deterred some participants from going online themselves. Research regarding older adults' interpersonal biases towards younger users is scarce; however, it is important to consider these negative biases or concerns when discussing motivators for limited digital engagement, and the current study provides insight into some of these biases or perspectives.

Beyond these concerns, many older adults experienced conflicting motivators for digital engagement. Among data collected from older people who did not use the internet during the pandemic, older adults often felt pressured to use digital technology despite their personal preferences (Zapletal et al., 2023). Tasks were more time-consuming and laborious offline, and family members and friends further pushed them to use these technologies. This finding would have become elevated in importance throughout the COVID-19 pandemic, as access to many in-person services and community groups was restricted, with research indicating that remaining offline during such a physically isolating period would leave them feeling socially isolated (Zapletal et al., 2023). However, many people were ultimately disinterested in using digital technology, even if no barriers were present. Regardless of attitudes towards digital technology, there was a clear preference for in-person activities, including going to the bank, playing card games, and talking with loved ones. Similarly, during the COVID-19 pandemic, older people expressed little internal motivation to use digital technology beyond the pandemic lockdowns (Zapletal et al., 2023), showing a misalignment between older peoples' internal motivators for digital engagement and the external pressures to participate online.

Implications

There are many reasons why 12% of older people have chosen not to regularly bring digital technology into their lives, and these findings have implications for the development of digital devices, training courses, and policy. We suggest that digital technology developers, policy makers, and institutions and organisations, as relevant, continue to work towards (1) increasing the accessibility of digital technology and internet access for older adults, (2) providing relevant digital skill training opportunities, and (3) maintaining offline alternatives to exclusively online activities.

As many older adults who self-identified as limited users of digital technology were deterred by technical difficulties associated with participating online, it is necessary for policy makers to consider older peoples' concerns, needs, and desires when creating suggestions for digital technology-related regulations. Though accessibility guidelines may exist for some governmental websites (e.g., Standard on Web Usability, Government of Canada, 2013), there is a lack of consistency in accessibility standards across various digital platforms. Therefore, we suggest that policy makers include recommendations for webpage or application layouts

where accessible customisations, such as font size and text-to-speech applications, are consistently and clearly placed, allowing increased accessibility for people with vision impairments or mobility and dexterity challenges. Similarly, we suggest that policy makers and developers of digital technology aim to find ways to clearly inform people of these adaptive features and how to maximise their benefits. For example, this may be achieved through providing accessibility tools with digital devices (Mullins, 2022).

Our findings also confirm that limited digital skills can deter older peoples' online engagement if they are already using digital technology in limited ways, and that digital training courses may not address their needs and preferences. These findings appear to be consistent throughout the literature, with research demonstrating that older adults are dissatisfied with the availability and foci of digital skill training courses (Garcia et al., 2021). Therefore, we encourage policy makers to advocate for the expansion of government-funded digital literacy programs that address the concerns and demands of older adults. This may be achieved by incorporating key themes from the present study into the curriculum; for example, teaching older adults how to enhance personal connection and improve privacy online, which may reduce some of the worries regarding unauthentic personal connection and online information security.

Furthermore, our findings oppose common ageist stereotypes regarding older adults' online engagement patterns. Younger people tend to assume that older people are unable or afraid to learn digital skills due to anxiety and limited physical or cognitive abilities (Mullins, 2022). Though this may be the case for some, with privacy and usability problems appearing throughout our analysis, disinterest was a distinct yet related motivator for limited online engagement among older adults, appearing in almost every interview. Given the interplay between the three main findings (internet concerns, frustrations with digital technology, and conflicting motivators to use digital technology), we suggest that addressing internet-based technology concerns may sometimes, but not always, encourage digital engagement among this population. Therefore, to continue to support the autonomy of people with limited digital engagement, there is a need for private and public organisations to continue to provide accessible offline alternatives for increasingly online-based services, in addition to addressing older peoples' concerns and frustrations with digital technology. For example, governments should maintain the availability of and access to paper-based tax returns and public radio or television news broadcasting. Policy makers should consider creating regulations targeting the maintenance of or return to offline alternatives for primarily online-based services, considering the wide variety of reasons for limited use of such technologies. This is significant at the policy level, as each year, more and more services are entirely dropping in person or paper-based alternatives, and government policy can potentially help halt the shift to an exclusively online world.

Limitations and future research directions

This study does not come without limitations. First, the interviews were conducted just prior to the first wave of COVID-19-related lockdowns in Ontario (March 17, 2020; Office of the Premier, 2020). Therefore, this study did not address older adults' digital engagement patterns and perceptions during or after the pandemic. Given the impact of pandemic-related restrictions on our society's interactions with digital technology (Feldmann et al., 2021), a

follow-up study we conducted during the COVID-19 pandemic extends the present findings by investigating the relationship between older adults and digital technology during COVID-19 (Zapletal et al., 2023). Future research should explore older adults' experiences with technology after the COVID-19 pandemic to understand the lasting impacts of the pandemic on online engagement among older people.

Additionally, this study did not account for information regarding participants' previous encounters with digital technology. Because the inclusion criterion regarding digital technology use was quite flexible, some participants stated that they had previously taken digital literacy courses or worked with these technologies, while others had little to no previous experience using digital technology. This discrepancy may have affected the findings of this study, as previous exposure to digital technology has been found to enhance computer confidence and reduce internet anxiety (Gonzalez et al., 2015). However, since digital engagement is becoming more of a necessity than a choice for Canadians, it is increasingly impossible for people to be completely disconnected from the online world, and the percentage of people who have had absolutely no engagement with digital technology is rapidly declining. Also, allowing participants to develop their own definition of limited digital engagement, within our relatively broad inclusion and exclusion criteria, allowed us to respect peoples' autonomy and self-expertise on their own behaviours. Though this study's flexible inclusion criteria may increase the generalizability of the findings, future research should consider older adults' previous experiences with these technologies to further explore the generalizability of these findings. Research should also attempt to understand the experiences of those who may be completely isolated from digital technology to further understand the reasons for not adopting these technologies.

Finally, the presence of a younger researcher may have caused some participants to feel uncomfortable when discussing their digital engagement patterns, potentially because of embarrassment, shame, or confusion, given the assumption that youth are highly technically aware. This may have influenced the responses that they provided, as many participants said that they felt "unfit" for the study due to their limited knowledge about digital technology. To address this, the researchers stressed the importance of the participants' responses in relation to the research questions and emphasised the value of their contributions. The researchers also offered participants and recruitment facilitators the option to receive a copy of the final paper to further emphasise the importance of and appreciation for their participation and assistance.

Conclusion

As digital technology becomes increasingly integral to Canadian society, it is becoming progressively more difficult to remain completely disconnected from the online world. Despite ageist assumptions that older people are not digitally engaged, most (88%) are online daily (Sixsmith et al., 2022). However, there may be advantages to sporadic online engagement, especially for older people. Therefore, the present study explored the experiences of older people with limited digital engagement and their reasons for not adopting these technologies into their daily lives, revealing three distinct yet related themes: internet concerns, frustrations, and conflicting motivators. The findings suggest that there are many reasons why some older adults do not use digital technology

regularly, and addressing some of their concerns may encourage some older adults to become more digitally engaged. However, as disinterest was a common disincentive to digital engagement, there is a need to support people (of all ages) who choose to remain offline, regardless of why.

Acknowledgments. The authors would like to acknowledge the following for their support throughout this project: Brittany Ardron, Karen Bisschop, Amber Zapletal, Dr. Geoff Navara, Glen Robson, and Terri Williams Kinghorn, as well as the Trent Centre for Aging & Society.

References

- Balki, E., Holland, C., & Hayes, N. (2023). Use and acceptance of digital communication technology by older adults for social connectedness during the COVID-19 pandemic: Mixed methods study. *Journal of Medical Internet Research*, *25*, e41535. <https://www.jmir.org/2023/1/e41535>.
- CBC News. (2019). *LifeLabs pays ransom after cyberattack exposes information of 15 million customers in B.C. and Ontario*. CBC News. <https://www.cbc.ca/news/canada/british-columbia/lifelabs-cyberattack-15-million-1.5399577>.
- Channer, N. S., Biglieri, S., & Hartt, M. (2021). Aging in rural Canada. In *Aging people, aging places* (pp. 141–148). Policy Press.
- Dahl, D., & Bergmark, K. H. (2020). Persistence in problematic internet use – A systematic review and meta-analysis. *Frontiers in Sociology*, *5*(30). <https://doi.org/10.3389/fsoc.2020.00030>
- Dangerfield, K. (2017). *Equifax data breach: Tips for Canadians whose info may have been hacked*. Global News. <https://globalnews.ca/news/3727677/equifax-data-hack-canada/>.
- Faverio, M. (2022). *Share of those 65 and older who are tech users has grown in the past decade*. Pew Research Centre. <https://www.pewresearch.org/fact-tank/2022/01/13/share-of-those-65-and-older-who-are-tech-users-has-grown-in-the-past-decade/>.
- Feldmann, A., Gasser, O., Lichtblau, F., Pujol, E., Poese, I., Dietzel, C., Wagner, D., Wichthuber, M., Tapiador, J., Vallina-Rodriguez, N., Hohlfeld, O., & Smaragdakis, G. (2021). A year in lockdown: How the waves of COVID-19 impact internet traffic. *Communications of the ACM*, *64*(7), 101–108. <https://doi.org/10.1145/3465212>
- Garcia, K. R., Rodrigues, L., Pereira, L., Busse, G., Irbe, M., Almada, M., Christensen, C., Midão, L., Dias, I., Heery, D., Hardy, R., Quarta, B., Poulain, M. M., Bertram, M., Karnikowski, M., & Costa, E. (2021). Improving the digital skills of older adults in a COVID-19 pandemic environment. *Educational Gerontology*, *47*(5), 196–206. <https://doi.org/10.1080/03601277.2021.1905216>
- Ghita, C., & Thorén, C. (2021). Going cold turkey!: An autoethnographic exploration of digital disengagement. *Nordicom Review*, *42*(s4), 152–167. <https://doi.org/10.2478/nor-2021-0047>
- Gonzalez, A., Ramirez, M. P., & Viadel, V. (2015). ICT learning by older adults and their attitudes toward computer use. *Current Gerontology and Geriatrics Research*, 1–7. <https://doi.org/10.1155/2015/849308>
- Goodman-Deane, J., Mieczakowski, A., Johnson, D., Goldhaber, T., & Clarkson, P. J. (2016). The impact of communication technologies on life and relationship satisfaction. *Computers in Human Behavior*, *57*, 219–229. <https://doi.org/10.1016/j.chb.2015.11.053>
- Government of Canada. (2013). *Standard on Web Usability*. Government of Canada: Policies, Directives, Standards and Guidelines. <https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=24227>.
- Hargittai, E., & Dobransky, K. (2017). Old dogs, new clicks: Digital inequality in skills and uses among older adults. *Canadian Journal of Communication*, *42*(2), 195–212. <https://doi.org/10.22230/cjc.2017v42n2a3176>
- Hasan, H., & Linger, H. (2018, December 3–5). *Older women online: Engaged, active and independent* [Paper presentation]. 29th Australasian Conference on Information Systems, Sydney, Australia. <https://ro.uow.edu.au/ahsri/1012/>.
- Howitt, D. (2016). *Introduction to qualitative research methods in psychology* (3rd ed.). Pearson Education Limited.
- Hunsaker, A., & Hargittai, E. (2018). A review of internet use among older adults. *New Media & Society*, *20*(10), 3937–3954. <https://doi.org/10.1177/1461444818787348>
- Hwang, W., Fu, X., Brown, M. T., & Silverstein, M. (2023). Intergenerational solidarity with digital communication and psychological well-being among older parents during the COVID-19 pandemic. *Family Process*. <https://doi.org/10.1111/famp.12910>
- Kuntsman, A., & Miyake, E. (2019). The paradox and continuum of digital disengagement: Denaturalising digital sociality and technological connectivity. *Media, Culture & Society*, *41*(6), 901–913. <https://doi.org/10.1177/0163443719853732>
- Millard, A., Baldassar, L., & Wilding, R. (2018). The significance of digital citizenship in the well-being of older migrants. *Public Health*, *158*, 144–148. <https://doi.org/10.1016/j.puhe.2018.03.005>
- Mullins, E. (2022). *Building digital literacy among older adults: Best practices*. Help Age Canada. <https://www.socialconnectedness.org/wp-content/uploads/2022/11/Emily-Final-Report-Building-Digital-Literacy-Among-Older-Adults.pdf>.
- Office of the Premier. (2020). *Ontario enacts declaration of emergency to protect the public*. Government of Ontario. <https://news.ontario.ca/en/release/56356/ontario-enacts-declaration-of-emergency-to-protect-the-public>.
- Ramírez-Correa, P. E., Arenas-Gaitán, J., Rondán-Cataluña, F. J., Grandon, E. E., & Ramírez-Santana, M. (2023). Adoption of social networking sites among older adults: The role of the technology readiness and the generation to identifying segments. *PLoS One*, *18*(4), e0284585. <https://doi.org/10.1371/journal.pone.0284585>
- Reneland-Forsman, L. (2018). ‘Borrowed access’ – The struggle of older persons for digital participation. *International Journal of Lifelong Education*, *37*(3), 333–344. <https://doi.org/10.1080/02601370.2018.1473516>
- Russell, E., Skinner, M. W., & Fowler, K. (2022). Emergent challenges and opportunities to sustaining age-friendly initiatives: Qualitative findings from a Canadian age-friendly funding program. *Journal of Aging & Social Policy*, *34*(2), 198–217. <https://doi.org/10.1080/08959420.2019.1636595>
- Ryu, S. I., Cho, B., Chang, S. J., Ko, H., Yi, Y. M., Noh, E.-Y., Cho, H. R., & Park, Y.-P. (2021). Factors related to self-confidence to live alone in community-dwelling older adults: A cross-sectional study. *BMC Geriatrics*, *21*(291). <https://doi.org/10.1186/s12877-021-02214-w>
- Seifert, A., Cotten, S. R., & Xie, B. (2021). A double burden of exclusion? Digital and social exclusion of older adults in times of COVID-19. *The Journals of Gerontology: Series B*, *76*(3), e99–e103. <https://doi.org/10.1093/geronb/gbaa098>
- Seifert, A., Hofer, M., & Rossel, J. (2018). Older adults’ perceived sense of social exclusion from the digital world. *Educational Gerontology*, *44*(12), 775–785. <https://doi.org/10.1080/03601277.2019.1574415>
- Sen, K., Prybutok, V., Prybutok, G., & Senn, W. (2022). Mechanisms of social interaction and virtual connections as strong predictors of well-being of older adults. *Healthcare*, *10*(3), 553–566. <https://doi.org/10.3390/healthcare10030553>
- Sinclair, T. J., & Grieve, R. (2017). Facebook as a source of social connectedness in older adults. *Computers in Human Behavior*, *66*, 363–369. <https://doi.org/10.1016/j.chb.2016.10.003>
- Sixsmith, A., Horst, B. R., Simeonov, D., & Mihailidis, A. (2022). Older people’s use of digital technology during the COVID-19 pandemic. *Bulletin of Science, Technology & Society*, *42*(1–2), 19–24. <https://doi.org/10.1177/02704676221094731>
- Sönmez, M., Gürlek Kısacık, Ö., & Eraydın, C. (2021). Correlation between smartphone addiction and loneliness levels in nursing students. *Perspectives in Psychiatric Care*, *57*(1), 82–87. <https://doi.org/10.1111/ppc.12527>
- Statistics Canada. (2022a). *Census Profile, 2021 Census of Population, Peterborough, Ontario*. Statistics Canada. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&SearchText=k9h3s5&DGUIDlist=2021A00053515014&GENDERlist=1,2,3&STATISTIClist=1&HEADERlist=0>.
- Statistics Canada. (2022b). *Census profile, 2021 census of population, Canada*. Statistics Canada. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&SearchText=canada&DGUIDlist=2021A000011124&GENDERlist=1,2,3&STATISTIClist=1&HEADERlist=0>.
- Statistics Canada. (2022c). *Census profile, 2021 census of population, Lakefield, Ontario*. Statistics Canada. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&SearchText=lakefield&DGUIDlist=2021S05100450&GENDERlist=1,2,3&STATISTIClist=1&HEADERlist=0>
- Williams, C., & Dedeo, M. (2023). Digital communication use before and during COVID among residential older adults. *Geriatric Nursing*, *53*, 116–121.

- Woolf, M. (2023). *CBC signals plans to go full streaming, ending traditional TV and radio broadcasts*. The Globe and Mail. <https://www.theglobeandmail.com/politics/article-cbc-digital-streaming/>.
- Xie, B., Charness, N., Fingerman, K., Kaye, J., Kim, M. T., & Khurshid, A. (2020). When going digital becomes a necessity: Ensuring older adults' needs for information, services, and social inclusion during COVID-19. *Journal of Aging & Social Policy*, *32*(4–5), 460–470. <https://doi.org/10.1080/08959420.2020.1771237>
- Zapletal, A., Wells, T., Russell, E., & Skinner, M.W. (2023). On the triple exclusion of older adults during COVID-19: Technology, digital literacy, and social isolation. *Social Sciences & Humanities Open* *8*(1), 100511. <https://doi.org/10.1016/j.ssaho.2023.100511>