# A Multidimensional Social Inquiry into the Loneliness Problem: Urbanization, Technological Mediation, and Neoliberal Individualism

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Acknowledgements:

The writing of this report was conducted in Alberta and British Columbia. We respectfully acknowledge the lands on which this report was written, including the histories, languages, and cultures of First Nations, Métis, Inuit, and all First Peoples of Canada, whose presence continues to enrich our diverse communities. The University of Alberta is located on Treaty 6 territory, traditional lands of First Nations and Métis people. The University of British Columbia's Okanagan Campus is situated on the ancestral and unceded territory of the syilx Okanagan Nation.

Recommended citation:

Milbrandt, Tara, and Ondine Park. 2023. *A Multidimensional Social Inquiry into the Loneliness Problem: Urbanization, Technological Mediation, and Neoliberal Individualism.* Ottawa: Social Sciences and Humanities Research Council. https://doi.org/10.7939/r3-tpaj-mp55.

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Table of Contents

Executive Summary

Background

Loneliness is a growing concern in Canada and around the world. Both preceding and since the COVID-19 pandemic, there have been reports that a significant proportion of Canadians face conditions of social isolation and experience loneliness. The negative effects of COVID-19 pandemic restrictions (2020–2022) brought wide-scale public awareness to "the loneliness problem" in contemporary society, making it possible to recognize this problem as much more than the sum of individual troubles. The remarkably protracted experience of life during the pandemic has highlighted the importance of understanding the different kinds of social connection needed for human flourishing. What can be called "the loneliness problem" is a multidimensional social issue. Understanding the complex constellation of social factors that engender meaningful forms of social connectivity, inclusion, and belonging will be essential in guiding effective social policy responses and interventions in the future.

In this knowledge synthesis report, we focus on the relationship between loneliness and three significant and consequential features of contemporary societies: the deepening and expansion of technological mediation, urbanization, and dominant forms of individualism, which we characterize as *neoliberal* individualism. These intersecting features are applicable to a growing majority of people in contemporary Canadian society.

Throughout this report we use the phrase "the loneliness problem" to refer to the complex of challenges and concerns associated with different forms and expressions of loneliness, isolation, and social disconnection in contemporary society.

Objectives

1. We asked how loneliness has been understood in relation to each of the three core features of contemporary societies—the expansion and deepening of technological mediation, urbanization, and neoliberal individualism. We focused on social science research over the past decade as well as recent grey literature from public-serving Canadian institutions.

2. In relation to these three features, our specific objectives were to identify research trends and knowledge gaps in the social science literature, to highlight significant recent findings and interventions meant to address loneliness, and to provide critically informed interpretations and insights from the research that are sensitive to the multidimensionality of loneliness.

3. We sought to identify practical and policy implications, making inferences based on recurring themes and findings in the literature. In turn, we aimed to develop a series of recommendations to guide Canadian policy and make it responsive to the multiple challenges related to "the loneliness problem."

An overarching objective was to bring a sociological imagination to the loneliness problem.

Results & Key Messages

Loneliness is a compelling, complex, and multifaceted social issue of the times, which cannot be reduced to a personal trouble writ large. Loneliness is not one thing. There is a need for a broad and multidimensional social approach to loneliness—even broader than a public health approach—that could take up the problem of loneliness as a complex phenomenon. Ideally, such an approach would consider how we might create conditions for meaningful forms of social connectivity that nourish and sustain people across the social landscape and along the life course, both in the ordinary circumstances of everyday life and in the face of extraordinary circumstances and large-scale collective disturbances, such as the COVID-19 pandemic. As we stress in our review of materials, loneliness is best approached through a culturally sensitive and intersectional approach, one attentive to marginalization and oriented to meaningful participation and inclusion across the diverse social world. It is also important to be attentive to both the built environment and to the environment of ideas, values, and judgments in order to recognize and address loneliness as a social issue that demands social solutions.

In this report, we have identified a series of research priorities and policy recommendations, guided by general principles and targeted in specific ways in relevant contexts, that can support a multidimensional approach to understanding and addressing loneliness.

Methodology

This review was carried out in two distinct phases of data collection and analysis. We conducted a scoping review followed by a thematic analysis of selected material. Scholarly data pertaining to loneliness was collected in accordance with the three major and overlapping features of contemporary societies: the deepening and expansion of technological mediation, urbanization, and contemporary individualism, which we characterize as neoliberal individualism. Grey literature was collected on the basis that it was current, publicly available, produced by public-serving institutions in Canada, and explicitly addressed loneliness in Canada. We highlighted recurring and notable sub-themes, findings, research gaps, and policy implications. The entire process was collaborative, involving continual communication, co-development, and writing of all outputs between the two lead investigators, and regular supervisory meetings with the research assistants.

Introduction and Context

"[L]oneliness and isolation emerge at a historical moment in which humans are objectively more interconnected and interdependent than at any previous point in history, and in which technologies for communication and social interaction have never been more readily available" (Øversveen 2021, 16).

Loneliness is a pervasive concern in contemporary Canada and around the world. Although people are more interdependent and have a greater potential to be connected with others through technologies than ever before, recent surveys in Canada, both preceding and during the COVID-19 pandemic, find significant and concerning reports of people experiencing loneliness and social isolation. A survey conducted in August and September 2021 by Statistics Canada found that more than "1 in 10 people aged 15 and older said that they always or often felt lonely" (Statistics Canada 2021a). Prior to the pandemic, a Canada-wide survey conducted by the Angus Reid Institute (2019), in partnership with Cardus, reported significant numbers of Canadians felt lonely and socially isolated; almost half of the respondents described themselves as either lonely, isolated, or both. Additionally, a Statistics Canada report on Canadians over the age of 65 noted that close to 30 percent of older adults were at risk of becoming socially isolated with 19 percent feeling isolated from others and 24 percent wishing they could participate in more social activities (Government of Canada 2016).

The harmful impacts of loneliness on individuals' psychological and physical health have been well documented and widely featured in news articles and popular wellness writings (Baker 2017; Blair 2020; Rickman 2021). Some researchers have equated the health risk of chronic loneliness and isolation to smoking fifteen cigarettes a day (Holt-Lunstad et al. 2015). Loneliness is commonly referred to as an epidemic in its own right (Selimi 2020; King 2018) and even "parallel pandemic" with the COVID-19 pandemic (Wong 2021). Additionally, loneliness has many different negative social (Williams and Braun 2019) and political impacts (Goldberg 2021). The creation of a dedicated Minister of Loneliness in the UK in 2018, and the creation of an explicit government strategy to combat loneliness and enhance social connectivity, signalled formal recognition of the broad societal significance of loneliness (DDCMS 2018). A Minister of Loneliness was also created in Japan in 2021 in response to rising suicide rates and concerns around social isolation (Osaki 2021). In Canada, some have proposed the need for a formal federal government strategy to address loneliness, particularly in relation to older adults (*CTV News* 2021). Throughout this report, we use the phrase "the loneliness problem" to refer to the complex of challenges and concerns associated with different forms and expressions of loneliness and social isolation in contemporary society.

Significant demographic changes and social trends in Canada have contributed to recent concerns around loneliness. One of these trends is an aging population (Statistics

Canada 2022d): In 2010, 14 percent of Canada's population was age 65 or older (Government of Canada 2014), increasing to 19 percent in 2022 (Statistics Canada 2022e) and forecast to reach approximately 23 percent by 2030 (Government of Canada 2014). Another significant trend is the rise of lone- person households, now constituting nearly one-third of all Canadian households (Statistics Canada 2022c). Additionally, the urban population in Canada continues to grow rapidly, both in number and proportion: nearly three-quarters of all Canadians now reside in large urban centres, and a large proportion of new immigrants reside in cities, with 90 percent of immigrants settling in census metropolitan areas as defined by Statistics Canada (Statistics Canada 2022b). Further, the increased prevalence of technological mediation in people's lives shapes how people communicate and connect with others near and far, with an increasingly high proportion of Canadians being digitally connected with home internet access and spending significant portions of time online, including on social media (Wavrock, Schellenberg, and Schimmele 2022). Although the digital divide is shrinking in Canada, it still exists, with nearly half of Canadians 65 or older considered "basic users" or "non-users" of internet and digital technologies (Wavrock, Schellenberg, and Schimmele 2021). The lived consequences of this divide were likely exacerbated during the COVID-19 pandemic since internet use accelerated for people and organizations on the other side of the digital divide, who are frequent users of the internet and digital technologies (Wavrock, Schellenberg, and Schimmele 2022). It is important to stress that loneliness is by no means an inevitable feature of any of the above demographic changes and social trends. However, the ways in which loneliness is often associated with aging, living alone, urban life, or simply using technology, and the ways in which these phenomena are interpreted and structured have experiential, material, and policy consequences.

While it is important to understand the ways that people experience these changes and trends and their loneliness implications, a more fulsome picture of loneliness and connectivity must include recognition of the broad social, structural, and historical contexts that create the conditions for and give rise to these changes.

Objectives

This project is guided by our concern to understand loneliness as a compelling social issue of our time. An overarching objective was to bring a sociological imagination (Mills 1959) to the loneliness problem, to approach it as a complex and multifaceted social issue that cannot be reduced to a personal (or private) trouble writ large (Yang 2019). The major goal was to survey the current state of knowledge about loneliness (and related phenomena) in social science research (2012–2022) and recent grey literature in Canada. We applied a multidimensional and sociologically informed approach to the current state of knowledge about loneliness, attentive to socially and economically structured, historically and culturally located, and differential experiences. We endeavoured to make sense of the loneliness problem within the context of contemporary

social life, in relation to the deepening and expansion of three of its defining features: urbanization, technological mediation, and individualism. These characteristics are applicable to a growing majority of people in contemporary Canadian society.

Our specific objectives were the following:

(1) to identify research trends and knowledge gaps in social science research in relation to the expansion and deepening of urbanization, technological mediation, and individualism; this includes dominant definitions, understandings, and typologies of loneliness that shape and inform recent research

(2) to catalogue recent findings and contemporary interventions on loneliness in Canada, found in the grey literature

(3) to provide critically informed insights that can inform future research agendas in ways that are sensitive to the multidimensionality of loneliness

(4) to offer recommendations to Canadian policy makers, so that relevant policies are responsive to the challenges related to widespread and diverse forms of loneliness and in line with current and changing demographic and social trends.

Methodology

The knowledge synthesis review was conducted in two distinct phases of data collection and analysis. We conducted a scoping review followed by a thematic analysis of selected material. Data consisted of two forms of literature: social scientific publications comprising peer-reviewed journal articles and scholarly books and book chapters published between January 2012 and November 2022, and recent publicly available grey literature produced by public-serving institutions in Canada. Literature was collected and archived in a shared, digital repository, which formed our evolving data-base. The search and screening processes yielded approximately 550 scholarly social scientific publications

and approximately sixty-five grey literature sources. These materials formed the basis of our analyses.

Team Process: The two lead researchers worked with a team of three research assistants (RAs): Gernil Szmyt, Shubhangi Chatterjee, and Tia Schnurer. Team meetings took place regularly, using the Zoom platform. Additionally, the two lead researchers met over Zoom at least weekly to review and discuss the emerging material, identify next steps, and develop detailed instructions for ongoing RA work. During these meetings, the lead researchers outlined and developed the synthesis report and evidence brief collaboratively.

Phase 1: Search, Selection, Organization, and Summary

Search and selection of sources was guided by the following research question: What is the current state of knowledge, published in the English language, concerning the relationship between loneliness and the identified features of contemporary social life, namely urbanization, technological mediation, and individualism? The RAs searched for and selected sources related to this research question. They organized these sources by extracting and inputting specified information (including abstracts, key definitions, research methods, contexts and populations as well as brief substantive annotations) into a spreadsheet. The two RAs working on the scholarly literature searched, archived, and input records in accordance with the major themes explored in the project (i.e., the core features of contemporary social life). The third RA, who was working on the grey literature, input records according to geographic location or scope (municipal, regional, or national) on a separate spreadsheet, extracting specified information (including contexts, populations, intervention if relevant, definitions, and more).

i. Scholarly sources

The two RAs reviewing the social scientific literature conducted four consecutive sets of searches for works published between January 2012 and August 2022, using the Web of Science database, with each search related to one of the key identified themes (urbanization, technological mediation, and individualism) and a final search to capture any missing pieces. After conducting each search and updating the spreadsheet and archive, each RA wrote narrative reflections based on their observations of the research process and findings. These reflections served both to help inform the research as an iterative process and to support student training, being opportunities for the RAs to explicitly reflect upon the skills and capacities that they were developing through the research process. After all of the searches were complete, the two RAs analyzed the spreadsheets to pull out relevant data, such as demographic characteristics of study participants, definitions of loneliness used in studies, and location of studies. Between September to November 2022, the two lead researchers and the third RA searched for recent scholarly works (published during autumn 2022) and for Canadian-based studies pertaining to loneliness research in relation to COVID-19, connected to our three major themes. These sources were added to our database and reviewed for relevance.

ii. Grey literature

Using the Google search engine, the third RA identified and then input and archived information about loneliness in publicly available grey literature produced by public-serving institutions in Canada. This grey literature included surveys, reports and newsletters, fact sheets, toolkits, and descriptions of initiatives, programs, and other interventions. After the search was complete, the RA extracted relevant data, such as groups targeted for programs and interventions, dominant and recurrent definitions and measurements of loneliness, and other recurring themes.

Phase 2: Thematic Interpretation of Findings

The lead researchers worked with both the archived sources and the spreadsheets produced by the RAs in order to identify recurrent themes within each of the three core themes identified at the outset as well as across all the scholarly and grey literatures.

Our full scholarly research dataset consisted of published articles and books that explicitly used the term "lonely" or "loneliness" in addition to at least one of the three themes: urbanization, technological mediation, or individualism. In the search, variations of these terms were used (e.g., variations of "urban" as well as "city" or "metropolitan"). There were both benefits and drawbacks to this approach of using explicit search terms, particularly the requirement to have a version of "lonely" present in the title, abstract, or full text. A benefit was that the vast majority of the texts we identified and examined were focused explicitly on loneliness. This enabled us to gain a valuable overview of what we refer to as dedicated loneliness research. It also meant that our findings were, to a significant extent, confined to research that was explicitly and intentionally focused on loneliness, to the exclusion of other related phenomena. However, a drawback was that this approach necessarily limited the range of studies we examined, potentially excluding relevant insights related to comparable phenomena (such as urban quality of life or platform-worker alienation).

After reading and discussing all of the entries in the spreadsheets and the abstracts, we identified a selection of approximately fifty-five scholarly texts (articles and book chapters) and included all grey literature sources for close reading and notetaking. Emerging through an iterative process, the criteria for inclusion of scholarly texts identified for close reading was based on relevance to our major research questions and overarching multidimensional approach.

Results

Conceptualizing Loneliness

How loneliness is conceptualized and defined by researchers, as well as how it is differentiated from cognate concepts like social isolation, shapes research findings—with corresponding practical and policy implications—in significant ways. The same is true for what types of loneliness are identified and presumed to be salient to people by researchers.

i. Dominant definitions for researching loneliness

In much of the literature we examined, a distinction is made between subjective and objective facets of social connectivity and disconnection. This is generally captured in the distinction between "loneliness" and "social isolation," as in the following:

> **Loneliness:** The dominant definition in the social scientific literature includes three major components.

Loneliness is described as being (1) a subjective perception of an individual; (2) a negative, painful, and/or unpleasant experience; and, (3) a state which involves a gap (discrepancy, deficit, imbalance, or mismatch) between an individual's desired or expected social connections and the quality and/or quantity of these connections in a person's life.

Social Isolation: The subjective experience of loneliness (sometimes referred to as subjective social isolation) is typically distinguished from objective social isolation, generally identified with objective (empirical) conditions, including but not limited to the number (quantity) of social contacts a person has, the extent to which one is alone or disconnected, and the number or frequency of contacts one has, etc.

A significant observation that is stressed in much of the loneliness research is that "feeling alone or lonely does not necessarily mean being alone nor does being alone necessarily mean feeling alone" (Cacioppo et al. 2015). Solitude, for example, is not the same thing as loneliness (Vincent 2020; Svendsen 2017).

Scholars whose work is frequently cited in dedicated loneliness research have contributed variations on the above definitions. This work includes that by American psychologists Letitia Anne Peplau and Daniel Perlman, whose cognitive discrepancy model (1981; 1982a, 1982b, 1982c;) defined loneliness as a subjective "discrepancy between one's desired and achieved levels of social relations" (Perlman & Peplau 1981, 31; 1998); American

sociologist Robert S. Weiss, who differentiated between emotional and social loneliness (1973; 1974; Russell et al. 1984); Dutch demographer Jenny De Jong Giervald, who furthered the subjective understanding of loneliness, as distinct from the objective number of contacts, and who developed a scale by which to measure this subjective definition of loneliness (1987; De Jong Giervald, Van Tilburg, and Dykstra 2006; De Jong Giervald and Van Tilburg 1999, De Jong Giervald and Van Tilburg 2006); and neuroscientist John T. Cacioppo, who posited that loneliness is an experience embedded in human nature, which, essentially, requires social connectedness (2008; Cacioppo and Cacioppo 2018; Cacioppo and Hawkley 2009; Cacioppo, Hawkley, and Berntson 2003).

In the grey literature, loneliness is presumed to be an unwanted, even painful experience, with emphasis often given to its adverse health effects for individuals. While scholarly research is not commonly cited here, there is typically an understanding of loneliness that points to or presumes there to be a gap between desired and actual social connections. Additionally, many of the loneliness interventions represented in the grey literature are aimed at people in vulnerable or marginalized groups, thereby, implicitly or explicitly connecting experiences of social marginalization, and/or relative social deprivations, with experiencing loneliness and/or being isolated from others.

ii. Dominant measurement tools for researching loneliness

In the scholarly literature, there is a significant reliance on scales for quantitatively measuring loneliness. The two most commonly used scales are versions of

the UCLA Scale and versions of the De Jong Giervald Scale. Russell developed the UCLA Loneliness scale (Russell 1982, 1996; Russell, Peplau, and Cutrona 1980; see also Hughes et al. 2004; Hawkley, Browne, and Cacioppo 2005) and defined loneliness in relation to "unpleasant feelings an individual experiences when there is a perceived discrepancy between her desired and existing social relationships" (Russell, Peplau, and Cutrona 1980). Indeed, the "most frequently used instruments for measuring loneliness in human studies are variations of the UCLA loneliness scale" (Cacioppo and Cacioppo 2018, 132). The three-item version of this scale, adapted from the revised version of the scale, includes the following questions, to which the respondent selects the answer "hardly ever," "some of the time," or "often": "First, how often do you feel that you lack companionship? How often do you feel left out? How often do you feel isolated from others?" (Hughes et al. 2004, 660). This reduced scale assesses emotional loneliness, while the De Jong Giervald six-item scale, reduced from the eleven-item scale, measures both emotional and social loneliness, asking respondents to rate their experiences from the following statements: "I experience a general sense of emptiness"; "I miss having people around"; "I often feel rejected"; "There are plenty of people I can rely on when I have problems"; "There are many people I can trust completely"; and, "There are enough people I feel close to" (De Jong Giervald and Van Tilburg 2006, 590). The answer categories given to respondents to select from are either on a five-point scale of "yes!" "yes," "more or less," "no," and "no!" or a three-point scale of "yes," "more or less," and "no" (De Jong Giervald and Van Tilburg 2006, 594). Though the UCLA and De Jong Giervald scales are most frequently deployed to measure loneliness, other scales or quantitatively measurable single-item questions are used in other studies (e.g., Grace et al. 2014 use the Asher Loneliness and Social Dissatisfaction Questionnaire Scale; Abe et al. 2021 use the Ando-Osada-Kodama Loneliness Scale; and Kamboj and Joshi 2021 use the Lee and Hyun loneliness scale).

iii. Types of loneliness

Loneliness is not one thing. Different definitions of loneliness—including different types of loneliness—will yield different results and findings and, therefore, carry different policy implications. Research assumptions about the kinds of social connections that are most salient to people are reflected in the scholarly literature. Sometimes this is articulated explicitly and sometimes it is more-or-less implicit.

American sociologist Robert S. Weiss (1973) created a loneliness typology that includes an influential differentiation between emotional (intimate) and social (relational) loneliness. These primary types of loneliness were discussed in the majority of research we looked at.

> **Type 1: Emotional (intimate) loneliness** refers to loneliness that is centred around the significance of (insufficient) intimate relations and close personal bonds in a person's life. Loss of a significant other, and the corresponding grief and losses associated with this, is included here. This is the dominant type of loneliness found in current research. (Although it is not always stated explicitly.)
> **Type 2: Social (relational) loneliness** refers to the lack of a supportive social network and the

experience of lacking a sense of belonging and/or companionship beyond the bounds of close or intimate ties.

Although it appears less frequently in social science research, emotional and social loneliness can be further distinguished from what is sometimes called collective or existential loneliness.

Type 3: Collective (existential) loneliness is a third major type that has been identified in the research. It has also been referred to as "public" loneliness, describing a more abstract sense of detachment or separateness from one's broader collective environment, such that one feels like a social outsider and longs for a sense of belonging and/or connection. This is similar to the category of *ethical loneliness* that is occasionally referred to in scholarly literature. Speaking of the experience of atrocity survivors, this term was originally coined by philosopher and holocaust survivor Jean Améry and has been further developed in the work of Jill Stauffer (2015).
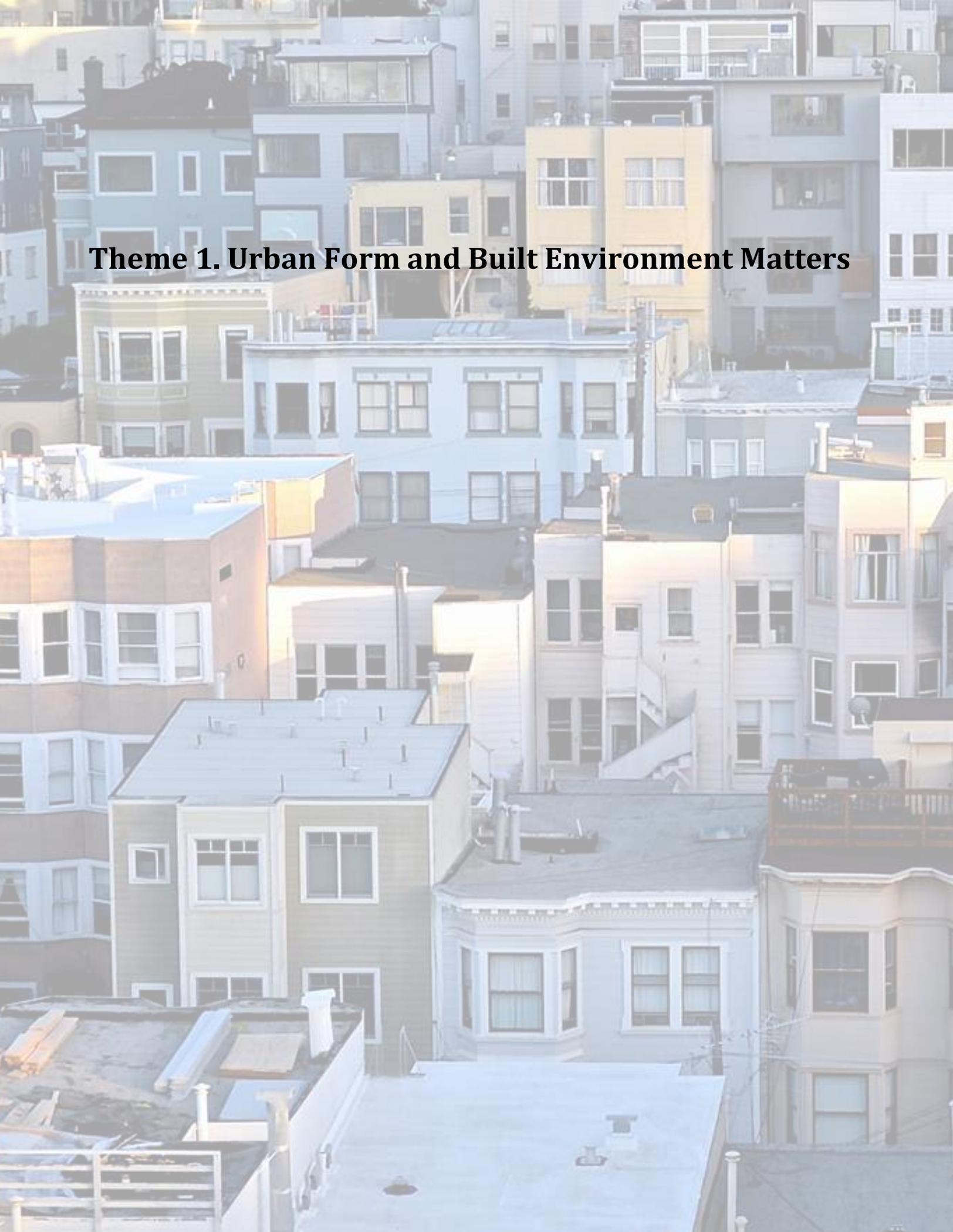
Theme 1. Urban Form and Built Environment Matters

Urbanization is a significant feature of contemporary social life. One of our research questions was: What is the relationship between increased urbanization and the loneliness problem? In spite of a loosely assumed association between urban conditions and loneliness, like all places, urban environments and their inhabitants are highly variable. As American sociologist Eric Klinenberg (2016) emphasizes:

> Social isolation may be less widespread in the general population than many believe, but it is more common among some people and places than others. […] The risks of social isolation depend not only on who you are, but also on where you live. Certain social environments foster social isolation, while others promote local contact and mutual support (786).

The urban environment literally and figuratively shapes everyday social relations in ways that can counter, mitigate, or intensify both social isolation and loneliness in myriad ways.

i. Neighbourhood matters: The importance of local amenities and services

Nobody lives in an entire city all at once. Rather, people reside in and spend time in particular areas or neighbourhoods. In addition to the personal realm of intimate relations and close networks, ordinary exchanges and neighbourhood connections, created and renewed through everyday encounters in shared spaces, matter. Publicly accessible, shared and safe spaces that connect people beyond the domestic sphere

can be important for enhancing casual forms of social connectivity in cities and for fostering a feeling of being "at home" in one's neighbourhood (Weijs-Perrée et al. 2015, 54; Bergefurt et al. 2019). Research focused on older urban adults stresses the salience of neighbourhood attachment, related to perception of safety and the existence of, and satisfaction with, "high-quality" local amenities and services (Kemperman et al. 2019, 12). Access to sustainable community-building environments—such as recreation centres or public libraries—can help urbanites expand social networks and foster social connections, thick and thin, potentially alleviating conditions of social isolation and reducing risks of loneliness (Ellis et al. 2022). Trust, safety, and aesthetics are also important dimensions of neighbourhood connectivity. In their study of loneliness in economically deprived areas of Glasgow, for example, Kearns et al. (2015) found that residents who experienced more loneliness did not use or feel safe while using local amenities, and they generally perceived the physical quality of their neighbourhood to be of low quality.

Even though some research has found that the absence or lack of close personal social ties has more of a loneliness impact than does absence or lack of broader community support—from neighbours, social cubs, religious institutions, and civic associations— the research is clear that multiple forms and levels of support contribute to people's well-being and sense of belonging in a city (Hombrados-Mendieta, García-Martín, and Gómez-Jacinto 2013, 1029; Giraldez-Garcia et al. 2013). In addition to ensuring the physical accessibility of neighbourhood amenities, events, and buildings (e.g., ramps), the importance of disseminating information

about such accessibility has been highlighted as an important factor for an inclusive and "age friendly" community (Cao et al. 2019).

ii. Form and availability of urban green space

A consistent research finding is that access and proximity to nature and green space are important for human well-being and casual social connectivity. Availability of safe and accessible green space is associated with positive forms of connectivity. It can contribute to a sense of belonging, personal efficacy, community, and quality of life. Part of its value is that it can create spaces and occasions for casual social contacts among diverse people across generations in urban neighbourhoods (Kazmierczak 2013), including older individuals (Kemperman and Timmermans 2014) and residents of relatively under-privileged urban communities with less access to desirable green spaces (Roe, Aspinall, and Thompson 2016). Access to green space has been linked with a decrease of stress (Thompson et al. 2012), lower levels of reported loneliness (Hammoud et al. 2021), and a greater overall sense of belonging (Rugel et al. 2019; Pretty et al. 2016; Arnberger and Eder 2012; Wright, Zarger, and Mihelcic 2012). Safe and accessible green space, and meaningful contact with nature more generally, can also open up spaces for quiet co-presence and respite from the busyness of everyday city life, including non-instrumental presence and positive forms of solitude (Vincent 2020; de Vries et al. 2013). This can also potentially counter some of the isolating consequences of long commuting times experienced by many working urban dwellers (Delmelle, Haslauser, and Prinz 2013). Though the research is generally consistent that urban green space is associated with greater well-

being, it is important to consider how particular spaces are perceived and experienced at the local level by differently situated individuals and to bring an intersectional approach to analyses of such shared spaces (Roe, Aspinall, and Thompson2016). It is clear from the research that studies of urban green space can benefit from considering both who is present and who is absent, and who feels included as much as who feels excluded and why.

iii. Mobility, transit, and autonomy

Accessibility of safe, diverse, and inclusive modes of mobility and transportation (e.g., bike paths, public transit, shared paths) can reduce experiences of loneliness and social isolation in cities (Weijs-Perrée et al. 2015). Some research finds a relationship between increased quality of life—including decreased loneliness—and the capacity of people to be and feel safe and mobile. This is particularly pronounced for older adults and children, who might otherwise feel restricted in their movements beyond the domestic sphere (Rantakokko et al. 2014; Ayalon and Green 2012; Pacillli et al. 2013; Rogers 2012). As such, researchers stress the importance of safe and accessible transportation (Lyu and Forsyth 2022; Hand et al. 2017; Kolodinsky et al. 2013). The findings of such research highlight the need to bring an equity and diversity sensitive approach to the design and management of urban mobility systems.

Grey literature and community-based initiatives aimed at addressing social isolation among older adults often raise the importance of transportation to prevent or alleviate social isolation (Federal/ Provincial/ Territorial Working Group on Social Isolation and Social Innovation n.d.; AHS 2020). Age-friendly community

dimensions prescribed by the World Health Organization (WHO), taken up by many of the initiatives covered in our grey literature, highlight the importance of transportation for older adults: "The condition and design of transportation-related infrastructure such as signage, traffic lights, and sidewalks affects personal mobility. Access to reliable, affordable public transit becomes increasingly important when driving becomes stressful or challenging" (WHO, as quoted in Syed et al. 2017, 227).

Our exploration of recent grey literature in Canada includes different targeted recommendations for increasing social connections and diminishing loneliness, with a focus on amenities, accessibility, and community/inclusion/belonging. Many of the recommendations intended to increase a sense of inclusion, improve mental health, and contribute to healthy aging include activities that strengthen people's participation in the local community through shared material interactions with the environment. Some examples include organizing or participation in walking groups (Comité en prévention et promotion 2020), men's sheds (Men's Sheds n.d.), community centres or recreational clubs (HereToHelp 2016), and friendship benches (CBC 2019) or, otherwise, creating physical environments with lower barriers for people to connect with others (Connected Communities 2019).

iv. Housing and types of dwelling: Availability and diversity of housing

Housing is an integral part of people's lives and well-being and plays an important role in creating, sustaining, and/or undermining forms of social connectivity. Housing is one of the Age-Friendly Community dimensions identified by the World Health Organization: "The availability of appropriate, affordable housing with a choice of styles and locations and that incorporates flexibility through adaptive features is essential for age-friendly communities" (WHO, as quoted in Syed et al. 2017, 227).

People experiencing homelessness:
A theme from the research on urban social conditions and loneliness is the problem of homelessness and the experience of people who are unhoused or insecurely housed. Studies from a number of different countries found that people who are (or were) unhoused were more likely to experience loneliness. As Bertram et al. (2021) note, "Even before the pandemic, data from Spain, Australia and Canada showed that homeless individuals have a particularly high risk of experiencing social isolation and loneliness, showing that up to 39.6% of the homeless population feel lonely" (2). Additionally, when people are homeless they may experience severe but underacknowledged loneliness that may be significantly different in character and consequences from the experience of people who are more securely housed (Tate et al. 2022; Bower et al. 2022; Dost et al. 2022; Patanwala et al. 2018; Santos 2017; Perron, Cleverley, and Kidd 2014). Related to this, the relationship between loneliness and housing insecurity was an important theme highlighted in a recent study that explored the well-being of more than 15,000 renters in Australia during the COVID-19 pandemic (Oswald, Moore, and Baker 2022). The authors of this study recommended that to support residents' social and mental health and enhance social connectedness, rather than leaving it to the private housing market, policy makers and urban planners should be focusing on the provision of shared, safe, and accessible

amenities, including parks or areas for exercising, proximate to large, multi-occupancy dwellings in which tenants inhabit relatively close and crowded living quarters (Oswald, Moore, and Baker 2022, 14).

The Importance of Housing Diversity:

Moving beyond the issue of access to affordable and safe housing, an additional question raised by the research is that of how well—or how inadequately—the types and forms of available housing respond to demographic changes and different forms of cohabitation, including the extraordinary rise of sole-person urban households (Klinenberg 2012; Jamieson and Simpson 2013; see also Snell 2017) and growing interest in more collective forms of housing. Additionally, there are forms of privatized housing that may exacerbate or even create forms of residential loneliness and disconnection; for example, high-rise buildings often lack meaningful access to shared spaces (Barros et al. 2019).

Residential Care Homes for Older Adults and Co-Housing:

There is considerable interest at this time in the social, economic, and personal advantages and possibilities found in different forms of co-housing. In their study of residents from different community-led housing models, Hudson et al. (2021) found that people who resided in such dwellings were significantly less lonely than people who had similar levels of social connectivity residing outside of such contexts. In their recent international study of social participation in long-term residential care in Canada, Norway, and Germany, authors Lowndes, Struthers, and Ågotnes (2021) explicitly connect "conditions of work" with "conditions of care" and find that meaningful social engagement in everyday activities can enhance residents' quality of life. Thus, "staffing levels, and work organization, as well as governing regulations, influence if and how residents can and do engage in meaningful everyday social life in and outside of the residence" (Lowndes, Struthers, and Ågotnes 2021, 138). In her study of community, loneliness, and well-being in five elder co-housing neighborhoods, Glass (2016) found that the residents generally experienced less loneliness in comparison to the national average. Similarly, Rusinovic, van Bochove, and van de Sande's (2019) study of co-housing for older adults in the Netherlands found a significant reduction of social loneliness in particular amongst residents, as well as some reduction of emotional loneliness. Complex decisions that many older adults might face regarding "where to grow old" will be impacted by existing housing options, among other things (see Löfqvist et al. 2013, 920).

Theme 2. Pervasive Technological Mediation and Technologically-Mediated Forms of Sociality in an Increasingly Digital Culture

Technological meditation of social relations is a significant feature of contemporary social life. It is paradoxical that during a time in which people are more connected than ever before, through accessible communication technologies, there seems to be a simultaneous crisis of loneliness, isolation, and social disconnection in Canada and around the world (Turkle 2011). One of our research questions included: What is the relationship between the increasing technological mediation of social relations and the loneliness problem in Canada? What do we know about the social isolation and loneliness impacts of technologically mediated forms of interactive communication, in particular? With the onset of the COVID-19 pandemic and wide-scale public health orders requiring physical distancing and isolation, questioning around the socially connective impacts of technological media has increased. Not surprisingly, the scholarly and grey literature we have looked at reflects these new questions and concerns.

One of our broad research observations is that technological mediation is a double-edged sword when it comes to social isolation and loneliness. This general finding is consistent with most research on new and/or disruptive technologies. Like all technologies, technologically mediated forms of communication are not one thing, and how they are taken up, utilized, and embedded in ordinary life varies enormously. Mediated forms of sociality, using digital technology devices and platforms, can be both connective and disconnective; they can potentially diminish or intensify experiences of loneliness (Blachnio, Przepiorka, and Pantic 2016). A recent Alberta Blue Cross initiative called "Feelings over phones," aiming to educate people on the possible social-

interactional harms of using one's phone while in the company of others, serves as a useful reminder of this duality in highlighting such effects as "increased anxiety, feelings of loneliness and strained relationships" (n.p.). The experience of loneliness can be intensified through online sociality; one may "long" for meaningful social connection while being digitally connected with others (Candiotto 2022). Interestingly, we found that when it comes to older adults, technological mediation tends to be viewed optimistically (as a tool of connection), whereas when it comes to younger adults (including adolescents), it tends to be viewed more pessimistically, negatively, and even pathologically (as being used problematically or having negative outcomes; sometimes being seen as a tool of disconnection).

Scholarly research on technology and loneliness tends to focus on emotional loneliness (emphasizing intimate and/or close personal relationships) and social loneliness (including wider interactional networks). Most of the research we looked at tends to be focused on the use of technology in the private sphere; this is not surprising, given the significant focus on older adults residing in congregate settings or living alone, in much of the research. We did not find research that explored the relationship between collective loneliness (or what is sometimes called existential loneliness) and the increasing presence of technology across the public realm, such as the rise of self-checkouts and the decline of face-to-face service work broadly.

The majority of research published during and about the pandemic period in particular has focused on the possible uses of technological devices to combat both social isolation and loneliness, especially amongst

older individuals. The vast majority of current research focuses on older adults (stressing connective possibilities of new tech), followed by younger adults (stressing the mixed and/or dis-connective possibilities). Research on technological mediation and its loneliness impacts that does not focus on either of these two age demographics is disparate as we point out below.

i. Mediated communication and the importance of social connectivity

A significant body of research highlights different socially connective potentialities afforded by different kinds of communication technologies, especially in the digital media environment. The importance of mediated forms of communication in people's lives for obtaining vital public information and, more specifically, for maintaining existing or initiating new kinds of social connections—from the intimate to the more impersonal—was intensified during the COVID-19 pandemic, especially during times when stay-at-home order were in effect. In addition to research on communication between friends and across personal social networks (e.g. Marston, Shore and White 2020; Juvonen, Schacter, and Lessard 2021; Wegner et al. 2022; Choi and Choung 2021), research on the use of information and communication technology (ICT) for facilitating forms of digital intimacy (Ley and Rambukkana 2021; Lee et al. 2022), including mediated erotic contact (e.g., Thomas, Binder and Matthes 2022; Holloway et al. 2021; Lehmiller et al. 2021), was also conducted.

ICT interventions are sometimes referred to as "e-interventions" (Chipps, Jarvis, and Ramlall 2017). Interventions that are discussed in current scholarly research primarily include technologies aimed at facilitating forms of contact between individuals and existing relationships (e.g., family members and friends at a distance). Broadly, these diverse forms of technological intervention attempt to bridge social and spatial barriers, including reduction of the digital divide faced by many older adults, by enabling mediated forms of social engagement, such as the use of tablets to maintain communication with existing social ties or to facilitate communication with online communities. Differences between in-person and mediated forms of communication and contact become particularly topical and relevant in the context of formal education (online) and work-from-home orders (Cairns et al. 2020; Shen and Putnam 2021). Additionally, recent pandemic-related research explored the impact of social-media based "caremongering" groups, who used these platforms (particularly Facebook) to share information and assist vulnerable people during socially restrictive lockdowns (for example, through food sharing and community support). This research offers promising findings on how existing social media connectivity can help connect and support people during especially challenging or social restrictive periods (Bishop et al. 2022).

During the pandemic, access to telephones, internet, and various social media-based services for communication and information was particularly salient for vulnerable and socially isolated populations who were already struggling with basic needs such as food security and adequate physical and mental health care access, as highlighted in a recent pandemic-era study (Mejia-Lancheros et al. 2022). Mediating technologies can be one tool among many to increase social

connections, reduce social isolation, offer necessary forms of social support, and thus reduce feelings of loneliness. This can be particularly pertinent for members of groups vulnerable to loneliness due to social isolation, including, for example, migrants (Felton 2014; Wahyudi and Allmark 2020; Saito, Kai, and Takizawa 2012), refugees, international students (Guo, Li, and Ito 2014), and newcomers to different locations more generally.

ii. ICT interventions and Older Adults

Technological interventions aimed specifically at reducing isolation and ameliorating loneliness for older adults—especially those people who live alone and/or who reside in care homes, often with reduced physical mobility and/or health related challenges—has generated significant research in the area of gerontechnology studies and related fields. This intensified during the COVID-19 pandemic, a time in which particular attention has been placed on the physical and mental health of adults residing in congregate living settings, including retirement communities and assisted living, who experienced a significant reduction in social contact.

Digital Divide:

One theme that comes up frequently in the research is the impact of the digital divide. As social relations are becoming increasingly mediated through digital-technological means, people who do not have access to communication technologies, and/or who do not have the requisite skills or capacities to use communication technologies, are excluded from taken-for-granted forms of communication and connection across spatial distances. While older adults are as heterogeneous as any other demographic, compared with other age demographics, they are more likely to experience some form of a digital divide (Wavrock, Schellenberg, and Schimmele 2021). During the COVID-19 pandemic, especially in the context of restrictions on the ability to be physically co-present with others, this had particular salience.

Mediated Connections During the Pandemic—Older Adults Residing in Congregate Settings:

Adult congregate living settings (e.g., retirement communities, assisted living) and health care facilities (especially hospitals) adopted restrictive visitor policies in response to the COVID-19 pandemic, to protect vulnerable people—including older adults, patients, care and health workers—from the spread of the virus. Although restrictions that limited or prohibited the physical presence of visitors were necessary, they created significant challenges for residents who were not mobile, leaving them more socially isolated than any other population. This context of physical and social restrictions, and the challenges they created, stimulated new and more research exploring the possibilities and pitfalls of ICT and related interventions for addressing the loneliness of older adults. During the pandemic period of visitor restrictions, ICT was used in different ways to facilitate different modes of human contact (Wasilewski et al. 2022; Chen 2020). This included such things as phone calls, electronic and social media messaging, and video calls (e.g., over Zoom, Skype, Facetime, etc.). For many, communication technology became a necessary lifeline during these exceptional circumstances of forced physical isolation. A study that explored older adults' use of a virtual exercise platform (over Zoom), which

combined one-on-one consultations and group activities during restrictive and disconnective periods during the pandemic, found it to be successful in mitigating the negative health consequences of reduced physical activity and overall social disconnection (Gray et al. 2022).

Our research located a number of articles published since March 2020 that explored different aspects of ICT use and social connection. Consistent with the pre-pandemic research findings, the pandemic-period research findings are mixed. Some highlighted the connective possibilities and social and mental health benefits (e.g., Rolandi et al. 2020; Matteucci 2022; Perdana and Mokhtar 2022). Others stressed the potentially negative impacts and importance of developing safe ways for vulnerable older adults to have meaningful human contact through physical co-presence during future pandemics or related circumstances, such as quarantines. For example, in their study of the loneliness/connectivity impacts of four different modes of human contact—in-person, electronic and social messaging, phone calls, and video calls—Dhakal, Koumoutzis, and Vivoda (2022) found that some forms of mediated communication increased, rather than diminished, people's experiences of loneliness. Some variation was found amongst members of different ethnic groups, pointing to the complexity of the subject and, once again, underscoring the important point that there is no one-size-fits-all approach, and ICT interventions need to be considered as merely one piece of a much larger picture of social connectivity (Lederman 2022). Some of the findings from researchers exploring older adults who live alone were similar; for example, Fingerman et al. (2021) stressed the importance of safe forms of in-person contact and found an

association between telephone-use and higher reports of loneliness: "Talking to others by phone may remind people of their feelings of being alone during the pandemic" (e118).

Connective Possibilities: Digital Communication Technologies and Robotics:

Much of the existing research on ICT interventions and older adults is based on short term studies that consider the possible loneliness mitigation effects of technology, particularly for people with reduced mobility. Consistent with some of the pandemic studies, Delello and McWhorter (2017), for example, found that the use of technologies such as tablets (specifically iPads) has "the potential to reduce social isolation by connecting older adults to online communities, renewing prior relationships, and enhancing communication with families" (22; see also Winstead et al. 2013).

Varying in level of criticality, a new sub-field of research—some highly exploratory—considers the *socially* connective possibilities of **robotic** forms of contact, including the use of companion and/or pet-like robots to supplement human contact and care work (Van Orden et al. 2022; Jecker 2021; Choiand Lee 2021; Isabet et al. 2021; Shibata et al. 2021; Lazar et al. 2016; Fields et al. 2019; Borrelli 2015). As some researchers highlight, this subject is cause for concern around issues of ethics, human dignity, as well as ageism, problematically giving rise to a "world of automated care" (Sharkey and Sharkey 2012, 282). Socio-economic differences could create a division between people who have access to human, personal-care worker contact and people who have less access due to understaffing in residential care homes. In light of the importance of

meaningful social connections for human well-being (Zardiashvil 2020), the possible economic efficiency of technological (as compared to social) "solutions" points to a potentially troubling orientation to the marketability of loneliness and care.

Ethical Design and Co-Design/ Collaboration:

Some researchers emphasize the importance of explicitly ethical design (Johnston 2022) and/or a collaborative approach to the use of ICT interventions or robotics of all types, particularly in the context of congregate living and institutional care settings. Specifically, some researchers have stressed the importance of participatory co-design to ensure that older adults are not merely "end-users" of the technological product or service but are part of its development and design (Sanders and Stappers 2014; Lazar et al. 2016).

Mixed Results--No One Size Fits All "Solution":

Research on the use of technological mediation to address loneliness amongst older and especially vulnerable adults—including adults with limited mobility—has produced mixed, often inconclusive, and contradictory findings about the short- and long-term efficacy or desirability of such interventions (see Khosravi, Rezvani, and Wiewiora 2016; Poscia et al. 2018). This is not surprising since older adults are not a homogeneous group. An implication of this research is the need to stress that there is no one-size-fits-all approach. Some researchers in this sub-field stress that "technologies enable meaningful, relevant forms of connectivity that resonate with the lives of older adults" (Nevay, Lim, and Gowans 2017, s4066). Site et al. (2022) use the terms "Loneliness Management Solutions" and

"socio-technological solutions," noting "the role of technology should be supportive, rather than dominant, in combating loneliness among older adults" (Site et al. 2022, 30). The primary goal should be to facilitate the use of technology to enable and enhance "seamless communication and connectivity among the elderly and their community (Site et al. 2022, 30). Indeed, it is possible to be technologically connected with other people in a way that is uncomfortable and even socially dis-connective in effect. Some researchers incorporate an explicitly critical approach when examining the use of technological interventions for addressing older adults' loneliness. For example, Barbosa Neves, Waycott, and Maddox (2021) argue that it is just as important to consider "failures" and unintended consequences as it is to consider successes as occasions for insight; the authors make the important observation that so-called technological "solutions" to social isolation and loneliness can enhance rather than reduce loneliness.

iii. Disability

What do we know about the connective possibilities of ICT for people with physical disabilities, including people with chronic illnesses, whose physical conditions mean that they are particularly vulnerable to social isolation and loneliness? The research findings for people with movement- and/or mobility-restrictions and people with chronic illnesses (such as immunocompromised individuals), for whom physical contact may be risky, are similar to those discussed above for older adults residing in congregate care and assisted-living environments. Additionally, in our grey literature search we found one source from the organization Canadian Hearing Services that specifically highlighted the importance of appropriate

technology for the mitigation of loneliness and isolation-related challenges for persons with hearing loss (Banks n.d.). ICT interventions, including forms of telepresence with friends, family members, and/or online communities, can have loneliness-mitigation effects. So too can ICT interventions potentially exacerbate feelings of loneliness. As is the case with any social category or group, it is important to stress that people with disabilities are not a homogeneous group. There is no universal solution, but context-appropriate technological forms of contact and connection can be beneficial (e.g., Magee and Betke 2013).

Loneliness and technological interventions do not operate in isolation:

Technological interventions need to be socially sensitive and culturally appropriate, not a cost-cutting substitute for human support, good-quality programs, or sufficient funding aimed at enhancing meaningful social inclusion, especially among vulnerable populations. The use of ICT and robotics cannot replace more robust and meaningful forms of social contact and care and cannot be cheap replacements for these. In the absence of meaningful interaction with existing social ties, technologies can be limiting and have undesired effects (Barbosa Neves, Waycott, and Maddox 2021).

iv. Mediated sociality and young people

Much of the research considering the relationship between technology and loneliness in young people investigates the role technology plays in inducing and enhancing or being a response to social isolation and loneliness. This research focuses largely on the experiences, feelings,

psychological dispositions, and immediate social networks of individuals.

Research in this area tends to concentrate on loneliness in relation to young people's use of digital media, including social media, gaming, and cell phones, and it focuses on young people's detrimental use or relationship with such media, often described pathologically as an addiction (e.g., Cheng and Lau 2022; Abbasi et al. 2021; Koban et al. 2021; Li, Niu, et al. 2021; Li, Zhan, et al. 2021; Mahapatra 2019; Yayan, Dağ, and Düken 2019; Tateno et al. 2019; Moretta and Buodo 2022). A number of scales and tests have been deployed to try and measure problematic use, including the Generalized Problematic Internet Use Scale (used by Probierz, A. I. Galuszka, and A. Galuska 2020), Internet Addiction Scale (used by Yayan, Dağ, and Düken 2019; Korkmaz et al. 2014), Internet Addiction Test (used by Kalaitzaki and Birtchnell 2014), Bergen Facebook Addiction Scale (used by Karakose et al. 2016), Microblog Excessive Use Scale (used by Ndasauka et al. 2016), and Smartphone Addiction Scale (used by Enez Darcin et al. 2016; Yayan, Dağ, and Düken 2019). In this area of research, loneliness is typically identified as one of an array of causes and/or consequences of such pathologized use while recognizing that it may be a strategy, even if problematic, for coping with or compensating for negatively-interpreted emotions such as loneliness.

This research considers in particular the role technology plays in problematic social mediation with a concern for the often negative engagements and negative impact technological mediation has on young people's sense of well-being and social connection and, thus, loneliness impact. These negative engagements increase feelings of social disconnection and isolation

and may adversely impact interactions in "real life" (Ndasauka et al. 2016; Festl, Reer, and Quandt 2019). Though technologically-mediated interactions may provide a large quantity of social contacts and a large attenuated social network, they do not provide the desired quality of social connection and, thus, result in a sense of loneliness. Potential harms that have been associated with social interactions afforded or limited by such technologies include cyberbullying (Halpern, Piñaand Vásquez 2017; Olenik-Shemesh, Heiman, and Eden 2012) and sexual victimization (Festl, Reer, and Quandt 2019), wherein young people seeking social contact or approval online post intimate or personal details, which may get used against them. Other social harms identified by authors include feelings of parental neglect or problematic relationships between children and parents (Wang et al. 2021; Liu et al. 2020). All of these produce painful social disconnection and loneliness.

Despite the heavy emphasis on psychologically problematic use and negative impacts, other research finds positive social effects of technological use among young people that reduces loneliness and increases a sense of social connectedness. For example, Vella et al. (2017) find technologically-mediated social interaction in the form of playing Pokémon Go as enabling and strengthening social ties and a sense of place. Some research also demonstrates that engagement with specific applications (apps) or social media has different outcomes in terms of increasing or decreasing a sense of

belonging (e.g., Fumagalli, Domatzian, and Shrum 2021). Meanwhile, a recent study that considered the possible relationship between screen time and loneliness, amongst a sample of Canadian adolescents over a one-year period, found a negligible increase in high school student loneliness (MacDonald et al. 2022).

As Reer, Festl, and Quandt (2021) note, it is not always clear whether problematic media use is caused by or the consequence of psychosocial health impairments. That is, there is uncertainty about whether factors like loneliness, anxiety, depression, or other negatively interpreted emotions or psychological states cause individuals to engage with technology in problematic ways (e.g., Coduto, Lee-Won, and Baek 2019; Reissmann et al. 2018; Bozoglan, Demirer, and Sahin 2013; Çelik and Odacı 2013) or if the technology induces social disconnection and such psychologically detrimental usage. Smith, Leonis, and Anandavalli (2021) more fundamentally re-frame the research question of causality to recognize mixed outcomes with respect to loneliness or social belonging, suggesting that a more productive approach to understanding the relationship between young people's use of mediating technology and loneliness and isolation is to understand the different circumstances and conditions that produce differential outcomes. As such, both sets of researchers recommend more longitudinal research be done to better understand the nature and nuances of this important question.

Theme 3. Neoliberal Individualism: Dominant Socio-Economic-Political Conditions, Ideologies, and Discourses
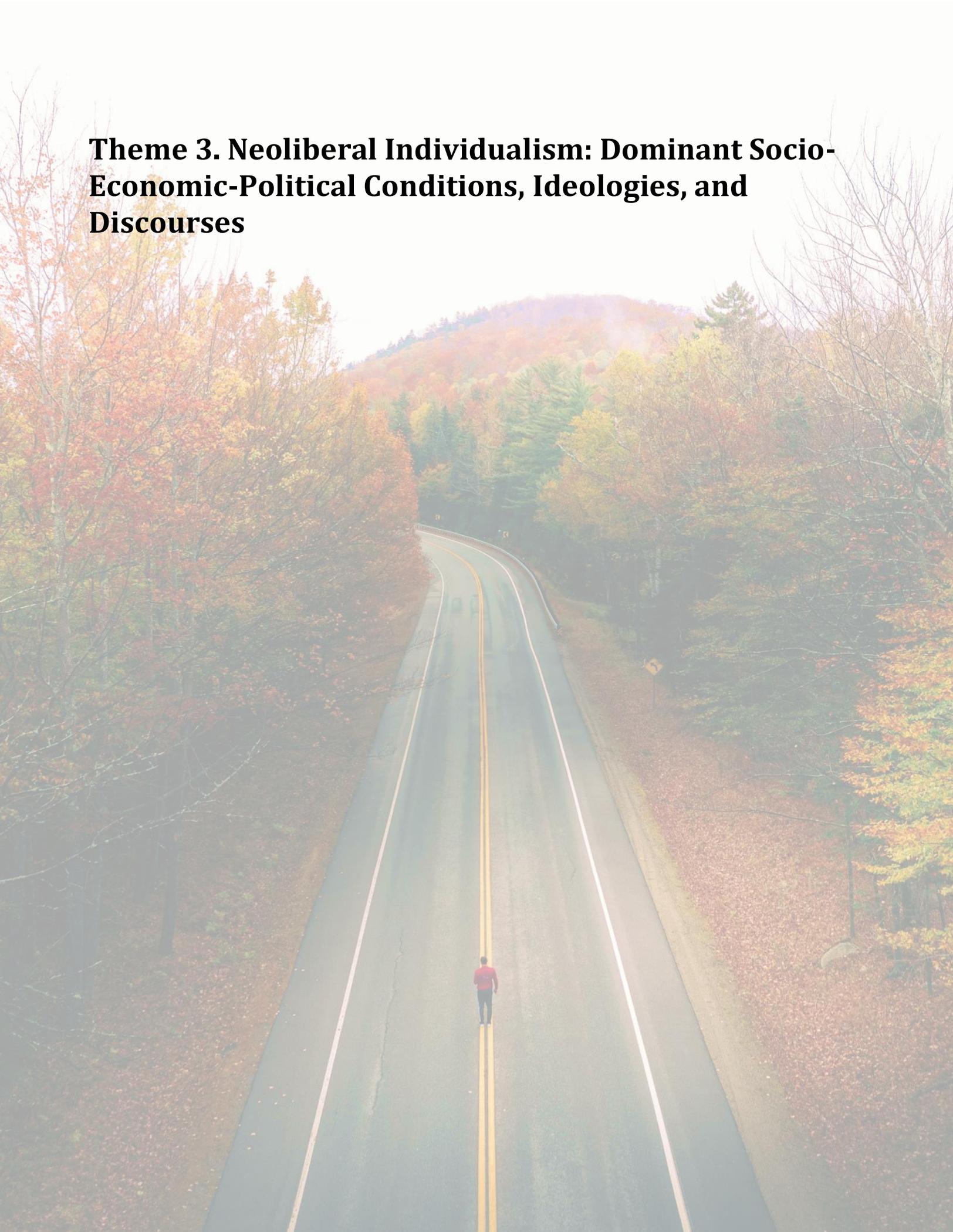
Neoliberal individualism is a third significant feature of contemporary social life that we investigated in its relation to loneliness. With respect to this feature, our research question was this: What is the relationship between contemporary understandings of individualism and the loneliness problem in Canada? Loneliness as an enduring experience and large-scale social problem has been broadly interpreted as an aspect or even symptom of late-modern social conditions (Franklin 2012; Yang 2019).

i. Neoliberalism and the decline of the social safety net: Political & economic policies, from privatization to austerity

There is a correlation between (1) growing concern around the so-called epidemic of loneliness in the broader society, expressed in mass media, government, and healthcare, as well as other institutions, and by the public more generally, and (2) a shift and deepening entrenchment of major features of social life that prioritize the idea of the self-actualizing individual (Øversveen 2021). The dominant idea of individualism today is in many respects an outgrowth of the current stage of capitalism that scholars refer to as neoliberalism. In *A Biography of Loneliness*, historian Fay Alberti (2019) links growing concerns over loneliness to the post 1960s political-economic–neoliberal environment. She highlights the politics of Conservative Prime Minister Margaret Thatcher in the UK from the 1980s, whose social policies epitomized neoliberal attacks on the welfare state and, correspondingly, "the gradual abandonment of the idea of society and community in pursuit of the individual" (Alberti 2019, 4). Social cutbacks guided by neoliberal principles diminish the social provision and sustainability of care in a

society—including in the context of implementing programs that intend to alleviate loneliness and social isolation. As UK-based health sciences researchers Ellis et al. (2022) put it, "sustainability of a public health intervention is likely to be hampered by a political context that is stripping the sector of available resources and financial support at a time when service user's needs are increasing" (10). The diminishment of care as a social concern leaves people to their own devices and pits individuals against each other in competition for limited resources. Features of neoliberal capitalism, and its valorization of "free market" principles that are associated in different ways with social isolation, loneliness, and disconnection from meaningful social relationships, include increased work precarity, mass consumerism, significant economic inequalities and social inequities, discourses of competitive individualism and "personal responsibility," and the expansion of austerity policies and decline of the welfare state (Franklin and Tranter 2021; Batsleer and Duggan 2020; Sethi 2021; Jones 2022).

Although the growing recognition of the loneliness problem in society at this time is encouraging, it is important to acknowledge that this does not mean that wider social-structural factors contributing to loneliness, isolation, and social disconnection are necessarily being addressed in impactful ways. A critical point Alberti (2019) highlights is that when the UK Minister of Loneliness was appointed in 2018, the same government "continued to strip the assets and spaces where community was being formed, especially in the poorest sectors of society: libraries, social care, the Independent Living Fund, council housing" (233). In her study of older adult care in Denmark, Dahl (2017) observes a similar retrenchment on

the part of the state, which she calls a "hollowing out of care" (12). Neoliberal policies most broadly involve material cuts to or reductions of formerly public services and include forms of privatization; together, these can undermine a sense of a shared world and the kinds of securities and solidarity that accompanies this, thus, contributing to social isolation and loneliness.

Loneliness as Social Justice Issue:

Another effect of late-modern neoliberal capitalism, and its emphasis on the self-actualizing individual, is that it generally de-politicizes social structural inequalities and inequities, in ways that shift attention away from social justice concerns and contribute to social marginalization. For example, Drabble and Eliason (2021) highlight the negative health and well-being impacts of neoliberal individualist discourses and policies for LGBTQ+ individuals and communities in particular. In her study on the harms of medicalization with regard to intersex persons, Jones (2022) argues for the importance of defining loneliness as a social justice issue, as it is not only an affective state experienced by individuals but also, importantly, "a collective response to mistreatment and disparity, whether through abandonment, disregard, contempt or otherwise" (42). Stressing the challenges that many people with disabilities face in obtaining adequate and necessary care, Peipzna-Samarasinha argues that "ableism, disability and loneliness are woven together under neoliberal capitalism in ways that mean that people with disabilities can't get the care they need," and, as such, they have a particular, profound understanding of isolation (cited in Magnet and Dunnington 2022, 129).

ii. Individualizing values and related discourses

Dominant social values pertaining to competitive individualism, which are pronounced under conditions of late modern capitalism, have multiple implications for people's social health and well-being broadly. A theme in some of the research we found was that in stressing competition, mobility, and personal responsibility, dominant social values stemming from a capitalist political-economic order often have the effect of undermining solidarity and cooperation between people, thereby, encouraging "a sense of social disconnection, competition, and loneliness" (Becker, Hartwich, and Haslam 2021, 14). Uncritical valorization of these values can have the unintended consequence of undermining meaningful forms of social connectivity, thereby, contributing to both social isolation and loneliness.

Neoliberal individualistic discourses often place the burden of wellness—and by implication, adequate social connectivity—on the individual. These include political discourses that stress *personal responsibility* as well as popular self-help discourses that stress individual efficacy. Such discourses conceptualize well-being as an individual problem, experienced by the individual (such as through physiological effects), and a condition that the individual is responsible for countering, through individual interventions and actions. Examples include the idea that individuals should learn and adopt coping skills or take initiative and engage in activities that will reduce their social isolation and/or feelings of loneliness (such as joining a gym or creating an online profile). Supports or recommendations for reducing loneliness are thus typically aimed at individuals.

In general, we found it rare for research on loneliness to contextualize the phenomenon within the broader socio-economic historical context. However, a handful of studies did identify the individualism fostered by neoliberalism as relevant to and significant for understanding the nature, causes, and consequences of loneliness as an experience of individuals. For example, Schirmer and Michailakis (2015) note that interpreting participants' narrative accounts of the cause of loneliness among older adults may, at least to some degree, simply reflect neoliberal discourses. As such, they suggest future research could "investigate the impact of neoliberalism on people's explanations of loneliness among the elderly" (9). A recent study conducted by social psychologists emphasized that participant exposure to neoliberal ideology contributed to their overall sense of loneliness and a reduction in well-being (Becker, Hartwich, and Haslam2021).

Stigma and destigmatizing loneliness:
One such impact may be the valuation of loneliness. As Batsleer and Duggan (2020) argue, "In a society that reproduces hierarchies of winners and losers, loneliness might be seen and felt as a personal failure" (17). The framing of *personal wellness* as an individual's responsibility found in popular self-help discourses today may, even unintentionally, contribute to the stigmatization of loneliness, as the experience of loneliness becomes interpreted as a failure of the individual rather than a reflection of broader social conditions and circumstances (for a recent and explicit feminist critique of such discourses, see Wilkinson 2022). Additionally, the way loneliness stigmatization plays out will vary for members of different groups and categories

(e.g., age, gender, ethnicity, relationship status) and in groups and cultures which stress individualism or collectivism (Barreto et al. 2022; Rokach 2019; Yang 2019). Some recent initiatives aimed at reducing loneliness aim to reduce its stigma. A good international example is the creation of "men's sheds" that stemmed, in part, from a recognition that men may be more susceptible to competitive individualism and the stigma associated with "failure," but with less social permission to speak about experiences of loneliness and disconnection, thereby, exacerbating its potentially harmful effects (McGrath et al. 2022; Franklin et al. 2019). As emphasized in some of the grey literature, the simple act of sharing stories of loneliness and coming to recognize that one is not alone in one's experiences of loneliness can have important positive effects for people. For example, an intervention called "The Loneliness Project" invites people to submit their personal stories of loneliness, which are then featured alongside those of others on a public website, designed and developed by Marissa Korda and Colin Rumball. Additionally, the relatively recent practice of medical providers, such as physicians, engaging in "social prescribing" recognizes loneliness as a significant problem in many people's lives; however, it places the onus of recovery, essentially, on the lonely individual (patient), who may or may not have the ability or means to follow such recommendation.

iii. Cultural and economic forces of fragmentation

Consumer culture and materialism:
Materialism and consumer culture encourage a type of privatized leisure time as well as a dominant orientation to oneself and others, primarily as consumers over other

interdependent and relational forms of identity such as citizen (Franklin 2012; Bauman 2001). As such, identity and value are considered in relation to what one can and does purchase, and individuals are expected to purchase provisions for their own well-being. Generally, the research that considers the relationship between loneliness and consumerism stresses that materialism is a problematic substitution for social connectivity (Norris et al. 2012), or associates consumer materialism with the experience of alienation generally (Kim 2014). In their study of 366 Malaysian undergraduate students, for example, Ang, Mansor, and Tan (2014) found a strong correlation between loneliness and materialism, leading them to stress the importance of meaningful social interactions and emotional attachments amongst youth in particular, who are often targeted by advertisers to buy into the association of materialism and happiness (336). With respect to the relationship between consumer purchasing, loneliness, and gender, a study by marketing scholars (Mittal and Silvera 2017) found that women who defined themselves as lonely tended to attach greater symbolic importance to their consumer purchases than men. This and comparable studies point to the need for critical attention on the culture industry, broadly, and the gap between its promises and what it can fulfill. The different studies looking at the relationship between contemporary loneliness and consumerism lead us to ask a critical question: Is loneliness an intended product (not an error or problem) of the culture industry and especially consumerism? While forms of resistance to the dominant "culture of consumerism" are possible on an individual level, including the development of a positive relationship to solitude (Vidauskytė 2019, 56), the general cultural pattern seems to be a force of social disconnection.

Precarious work and the rise of the gig economy:

There is limited research on the relationship between loneliness and forms of precarious work, including the gig economy, and a need for additional research that explores the loneliness implications of precarious work more broadly. Some research finds a clear link between the experience of loneliness and conditions of temporary (precarious) work; temporariness is found to be a significant determinant of loneliness at work (e.g., Moens et al. 2021). Additionally, in one of the few studies that looks at Canada, Glavin, Bierman, and Schieman (2021) examine workers' experiences of being powerless and alone in the gig economy, finding that platform workers—particularly rideshare drivers—experience greater levels of powerlessness and loneliness than non-platform workers. It is worth noting that an increasingly high proportion of Canadian workers participate in platform work to some extent. This is particularly the case for "younger workers and visible minorities" (Glavin, Bierman, and Schieman 2021, 421).

iv. Individualist vs. collectivist cultural orientations

In research that looked at the relationship between individualism and loneliness, a prominent theme was the distinction between "collectivist" and "individualist" cultures, typically stressing cultural differences at the national level. This research stresses that our understanding of the characteristics and experiences of loneliness and well-being are deeply shaped by cultural values and their differential manifestations

across the social landscape (e.g., by gender). For example, Heu, van Zomeren, and Hansen (2020) develop a "culture-loneliness" framework that investigates the relationship between loneliness and level of restrictiveness in cultural norm-compliance regarding social relationships generally, finding that "moderate restrictiveness" works as a protection against loneliness at the individual level (68). Much of the research investigating differences between individualist and collectivist cultures builds upon the national cultural comparative framework of the Dutch researcher Geert Hofstede (2011; see also Hofstede and Hofstede 2001). In particular, it draws on Hofstede's distinction between societal emphases on individualism or collectivism. A recent multicountry survey of loneliness in twenty-one different European countries, which drew upon this typology, found that loneliness was less prevalent in more individualist countries when meaningful forms of support exist, including

"associations, public spaces and events, public transport, and commercial resources catering to the lonely" (Swader 2019, 1329).

The world has become increasingly globalized. It is important to recognize that pluralist countries such as Canada include a multiplicity of cultures and cultural orientations to understandings of isolation and loneliness. These differences are not only about national differences but can be found between and within communities, including within families, institutions, or friendship circles. For example, Balkir, Arens, and Barnow (2013) note that psychotherapy as an intervention to alleviate depressive disorders, including experiences of loneliness, is not necessarily effective or appropriate for people who belong to a collectivist culture. An implication of the typology of cultural orientations to collectivity or individualism is that effective ways to address loneliness in relation to different cultural orientations may differ.

Implications, Recommendations, Discussion & Future Areas of Research

Research Recommendation: Conceptual rigour in loneliness research.

We recommend that researchers be explicitly attentive to differences between *social isolation* (related to objective conditions) and *loneliness* (as a subjective experience or perception) as well as to the multiplicity of types of loneliness that are discussed and taken up in the wider social science literature.

Research Recommendation: Further development of the category of collective (existential, public, or ethical) loneliness.

This type of loneliness is relatively underdeveloped in the social science literature. The dominant scales by which loneliness is commonly measured are typically focused on questions oriented to the measurement of either intimate (emotional) or social (relational) types of loneliness. Developing the category collective loneliness

would contribute to a more comprehensive understanding of the broad range of loneliness that people may experience, including kinds of loneliness that might flow from experiences of exclusion and marginality in particular social environments (e.g., specific urban areas), and institutional settings (e.g., universities or public transit systems) or from historical processes (e.g. colonialism), stigmatizing experiences (e.g., incarceration, homelessness), or large-scale traumatic events (e.g., war, displacement). These are different from the kinds of loneliness one might experience when one is socially isolated from loved ones or when they experience a lack of intimate relationships or a weak social network (for a discussion of collective loneliness, see, for example, Van Beek and Patulny 2022; for an elaboration of ethical loneliness see Stauffer 2015). Recognition of diverse forms and manifestations of loneliness would be beneficial for researchers as well as for policy makers oriented to the creation of more inclusive environments.

Research Recommendation: More longitudinal loneliness-related research across the life-course.

A large proportion of dedicated loneliness research is focused on older adults, followed by younger demographics. Demographic specificity in research is important, given the need to understand the particularities of loneliness. However, while some degree of isolation or loneliness is associated with significant life transitions, it is important for researchers to recognize that neither social isolation nor loneliness are inevitable consequences of any age category or stage of life. To have a full understanding of loneliness in a society, we need to understand how it changes across the life course and what social (not merely physiological) factors contribute to these changes. Life stages are themselves historically and socially constructed categories. Longitudinal studies would be beneficial in capturing these differences and changes

Research Recommendation: More dedicated loneliness research exploring the qualitative complexities of loneliness in the context of contemporary Canada.

Within the context of our three major themes—urbanization, technological mediation, and individualism—there has been relatively little dedicated loneliness research conducted in Canada. We highlight a lack of research conducted on Indigenous Peoples. This is somewhat surprising given that between 2016 and 2021 the urban Indigenous population increased by 12.5 percent (Statistics Canada 2022f) and broader conversations were taking place around reconciliation. Although a high proportion of newcomers reside in urban

centres, there is also a relative lack of research exploring experiences of loneliness and social isolation amongst new immigrants and refugees in Canada.

Policy Recommendation: Enhance local neighbourhood liveability as an intentional loneliness-mitigation strategy.

As an intentional loneliness-mitigation strategy, relevant levels of government, in meaningful consultation with community organizations, residents, and other stakeholders, should provide sustained and sufficient funding and appropriate amenities and services in local communities, as well as introduce and implement appropriate land-use zoning, to develop and support neighbourhood-based urban communities and social connectivity initiatives. Such interventions should include clear recognition of the value of and support for enhancing local attachment, residential safety, and overall livability. This would also support successful aging in place.

Policy Recommendation: Create conditions for more accessible green spaces and local community gardens.

We recommend that municipal governments work with neighbourhood organizations to create more spaces and possibilities for safe and barrier-free proximity to urban green spaces, including community gardens. Additionally, the existence and accessibility of such spaces must be communicated to neighbourhood residents. In the case of community gardens, it should be clear to people how they can become involved (e.g., access to a garden plot). Municipalities could work with neighbourhood stakeholders to

develop strategies for transforming existing underutilised green spaces (e.g., front lawns of large buildings) into sites for resident engagement and community-building. In addition to enhancing neighbourhood attachment and everyday sociability, this would contribute to sustainability and greening of cities (with benefits for individuals, neighbourhoods, and the environment).

Policy Recommendation: Include the loneliness and social isolation impacts of being unhoused/homeless or insecurely housed.

There are significant loneliness impacts of being unhoused and distinctive ways in which this vulnerable population experiences loneliness. We recommend that the loneliness and social disconnection impacts be included in the broader public and policy conversations about the importance of appropriate, affordable housing.

Research, Practical & Policy Recommendation: More research as well as more research-informed policy to address housing diversity needs in Canada.

There is a need for more research in Canada to explore how existing dwelling structures and forms of housing and residential living either support or marginalize people in diverse types of households, living situations, and domestic arrangements, as well as affecting casual sociability between neighbours and others. And there is a need for housing policy to be informed by such research, to guide the development of housing in ways that are responsive to demographic trends and social changes and

to provide more choice for people that is relevant across the life-course. (Such trends and changes include the trend in solo households, an aging population, a culturally diverse population, and interest in co-housing options—including, but not limited to, multigenerational forms of living). We further recommend that plans for the creation of new forms of housing include consultation and collaboration with all relevant stakeholders, particularly residents (or potential residents).

Policy Recommendation: Prioritize transportation infrastructure as a loneliness-mitigating tool in urban planning and development.

Safe and accessible transportation is—among other things—an isolation-mitigating tool and a multi-seasonal component of urban quality of life. In recognition of this, municipal governments should ensure that public transportation and active transportation options, such as bicycles, are affordable and accessible, by developing policies (such as free transit) for economically marginalized members of society, including people who are retired, are under- or unemployed, are students, or have a disability. This would include safe and well-lit paths and trails, along with appropriate street furniture (e.g., benches, picnic tables, bike racks, bus shelters) and accessible public restrooms. It is vital to bring an explicit equity and diversity sensitive approach to the design and management of urban transportation systems, both to resist potential social-isolation effects and to enhance diversity, equity, and inclusion more broadly.

Policy Recommendation: Development and implementation of a "loneliness audit" planning tool.

To support all of the above policy recommendations, we would encourage governments, community organizations, neighbourhood associations, and others to develop an intentional planning tool for broad implementation. Analogous to physical accessibility considerations, planning tools should explicitly include the loneliness/connectivity implications of new developments—including proposed cutbacks to services and programs. To this end, we recommend the development and deployment of a related planning tool such as a *loneliness audit*. Urban planning, policy, and design related to public infrastructure and the built environment should proactively and intentionally endeavour to envision and develop spaces, services, and initiatives that can foster meaningful forms of social connection and counter social isolation across the seasons. Because loneliness has societal and significant implications for quality of life, public health, and social inclusion and participation, policies should be developed to ensure that responsibility for addressing loneliness is not downloaded to individuals or local communities. Although individuals and local communities have important roles to play in fostering the immediate conditions that promote well-being and inclusion, larger-scale on-going investment of resources and intentional evidence-based programing, infrastructural design and regulation, and policy making and implementation by public institutions and government, at all levels, is required. This includes implementing policies and regulations to ensure that the private sector does not work at cross-purposes by intensifying conditions of loneliness.

Research Recommendation: More research to explore the loneliness-impacts of growing technologization of environments.

Increasingly, technologically-mediated environments reshape the quantity and quality of face-to-face interactions and contacts between people (e.g., the rise of automated services, the app-based gig economy, self-checkouts, and drive-through businesses, etc.). More research could be done to examine the loneliness and social connectivity implications of such reshaping of the social landscape—including work that is structured by apps, such as gig economy work and platform capitalism. Our research uncovered only one recent Canadian study that directly connected gig work to experiences of loneliness (Glavin, Bierman, and Schieman 2021).

Policy & Practical Recommendation: Develop and make available instructional resources and supports for young people to navigate the online world safely that encourage inclusive forms of social connectivity; and include young people in such processes.

In light of the different ways that internet use, and specifically social media use, can contribute to young people's experiences of *both* social disconnection and connectivity, educational leaders are encouraged to continuously develop and enhance existing instructional resources and supports for young people as they navigate the ever-changing online world. It would be valuable to include students in the development of safe practices and policies aimed at enhancing positive forms of social connectivity.

Research Recommendation: More longitudinal research to explore social connectivity impacts of information communication technology (ICT) interventions.

The majority of current studies that explicitly address the loneliness and isolation-mitigation potential of ICT devices (or social technologies) in the context of older adults living in assisted care facilities and/or living alone are short term and/or pilot studies. Longer-term research is needed. Moreover, research findings need to be interpreted carefully to ascertain whether the technological interventions are successful in creating or fostering greater social connectivity and lessening social isolation in a sustainable manner, or if it is the added attention and support given to individuals to facilitate their use of the technology in the context of the studies that has loneliness-mitigating effects.

Research, Practical & Policy Recommendation: Critical and collaborative approach to the development and implementation of technology to mitigate social isolation and loneliness.

Any technological tools developed and used for the purposes of mitigating social isolation and/or loneliness should be developed with accessibility and inclusivity as key objectives. And there is a need to consider long term use, sustainability, and support of these technologies. It is important to foreground ethical questions about what technology *should* be developed, not just what *can* be developed, and to be cognizant of the broader political-economic contexts in which ICT and robotics research is taking shape. Methods of participatory design (or co-design) to include

intended end users should be incorporated into the development and implementation of technological tools aimed at reducing loneliness and/or social isolation, especially of vulnerable populations.

Policy & Practical Recommendation: Regulatory control in the deployment of technology as loneliness-alleviating tools in institutional settings and among vulnerable populations.

There is a need to exercise caution in the deployment of technology in institutional settings as loneliness-alleviating tools. Interventions and policies related to the use of such technological tools need to be deployed in ways that are sensitive to intersecting social and cultural differences and regulated with the conditions of use explicitly identified. When it comes to mitigating loneliness and fostering meaningful forms of social connectivity, thoughtfully and carefully used ICT and robotics can be one possible tool among others, but they should not be treated as a singular technological "fix all" and/or staffing cost-savings measure.

Research Recommendation: More intersectional research to explore how interlocking systems of oppression relate to loneliness.

Social inequality contributes to conditions and experiences of loneliness and social isolation in diverse and complex ways. An important area of research is the exploration of how intersecting systems of oppression—such as ageism, ableism, sexism, racism, settler-colonialism, heteronormativity/ homophobia, and others—contribute to loneliness in materially distinctive and institutionally structured ways. There is a need for more explicitly intersectional scholarly research in Canada to explore the different ways that members of marginalized groups may be differentially socially isolated and experience loneliness.

Research Recommendation: Bring a social justice lens to loneliness-related research.

It is important for researchers to be cognizant of the broader environment in which current concerns with loneliness and related phenomena are taking shape. This includes historically specific political, economic, and social conditions shaping contemporary social life and experiences therein, including the significance of neoliberal policies, discourses, and values. We recommend that future loneliness-researchers include an explicit social justice lens that can clearly connect structural power or lack thereof with conditions that may contribute to social isolation, disconnection, and loneliness. And we recommend that researchers bring a critical awareness to the ways in which this context shapes approaches to and interpretations of loneliness research.

Discussion & Conclusion

Responding to the loneliness problem in a comprehensive way clearly requires that it be recognized and addressed as a significant and multifaceted social issue of the times. As we stated at the outset, the COVID-19 pandemic has highlighted the need to better understand the broader social and historical forces that contribute to loneliness, isolation, and disconnection from society—notably, neoliberal capitalism—as well as the different ways in which people may be unevenly impacted by these forces. Understanding the complex constellation of social factors that contribute to loneliness and related phenomena will be critical in guiding research, social policy responses, and interventions in the future.

As is evident from the literature, loneliness is not one thing. There are multiple types of loneliness, ranging from the intimate and the relational realms to the broader collective realm. It is socially complex and variable. And the ways that it is produced, experienced, and understood are conditioned by broader social and cultural contexts and historical processes, as well as individual differences across the life course. There is, thus, a need for more intersectional research to explore the ways differently-located groups may be differentially socially isolated or experience loneliness.

With Canada's population aging, the rise of solo households, ongoing urbanization, and the ubiquity of technologically-mediated communication and engagement, which has intensified since the COVID-19 pandemic began, on the surface, it might seem that we are headed towards a lonely future. However, it is important to stress that loneliness is by no means an inevitable feature of any of these demographic changes or social trends. As the literature that we reviewed on loneliness makes available, there are many different ways that we can envision and organize social spaces and shared resources to promote nourishing forms of social connectivity—including the planning of neighbourhoods, design of housing, and integration of technologies into social life, and so much more. It is important to be attentive both to the built environment and material world and to the environment of ideas, values, and priorities in order to recognize and address loneliness as a social issue, not a private trouble writ large.

The loneliness problem is inseparable from the ongoing challenge to create conditions for full social participation and human flourishing in Canada and beyond. To be effective, future research as well as both practical and policy interventions need to be cognizant of the multidimensionality of the loneliness problem in contemporary societies. We cannot stress enough that social issues demand social solutions.

For example, the under-recognized loneliness consequences of the current neoliberal capitalist context, in which the loneliness problem is so topical, need to be better understood if we wish to address the loneliness problem effectively.

Knowledge Mobilization Activities

Stakeholders, Broader Public, and Scholarly Community.

We presented this Knowledge Synthesis Report in The Emerging Asocial Society, Knowledge Mobilization Forum, "Panel 5: Socialization and belonging," on November 15, 2022. This final report and the Evidence Brief (available in both English and French) are now available online through SSHRC's website. We presented our research findings and recommendations during two public talks organized by our respective campuses. The first public talk took place as part of the Lunch and Learn series at the University of Alberta's Augustana Campus in the Jeanne and Peter Lougheed Performing Arts Centre in Camrose, AB, on December 9, 2022. This talk was hybrid, conducted in person and made available for participants to attend remotely. The second public talk was part of the Department of History and Sociology Speaker Series of the University of British Columbia, Okanagan campus, held at the Okanagan Regional Public Library in downtown Kelowna, BC, on April 13, 2023. We will further develop this project into scholarly writing and presentations that build upon our research findings and, in particular, our multidimensional sociological approach to loneliness and social connectivity.

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