

# Re-envisioning Digital Equity and Connection Literacy for Older Adults

Zachary White

Aging adults are increasingly reliant on technology to connect and meaningfully participate in overlapping domains of life. To address the digital and connection literacy needs of 1.7 million North Carolinians aged 65 and older, digital inclusion programming should account for the interconnected social assets, needs, and motivations of this diverse population.

## Introduction

At first glance, aging adults are engaging online: according to the Pew Research Center (2022), adoption of technologies among older adults (aged 65 and older)—owning a computer, owning a smartphone, and using social media—has grown considerably in the last decade [1]. Beyond these headlines, however, there is much more to the unfolding story that must be explored in order to address a digital divide that prohibits many older adults from benefiting from digital equity, which is the “condition in which all individuals and communities have the information technology capacity needed for participation in our society, democracy, and economy” [2].

Aging adults increasingly rely on technology despite broadband access and cost barriers. Three out of four adults aged 50 and older say they rely on technology to connect with family and friends [3], yet 22 million older Americans—or 42% of the population over age 65—do not have broadband access at home, establishing aging adults as the “second largest demographic group of Americans left behind in the digital age” [4].

The ability to meaningfully participate in today’s society requires digital literacy, or the “ability to use information and communication technologies to find, evaluate, and communicate information” [2], because digital engagement is an essential factor that impacts “all other social determinants of health” [5, 6]. As was demonstrated throughout the COVID-19 pandemic, mobile and smart phones can be useful in circumventing broadband inequities. Mobile and smart phones are insufficient alone, however, because dynamic digital inclusion amongst aging adults requires reliable access to and use of the internet from multiple points of access (e.g., types of devices and places: at home and in public spaces) [7]. By 2030, North Carolina will be comprised of more older adults than children [8]. To address

the “least connected among all age groups” [9], now is the time to act to ensure digital inclusion is “a core component of social inclusion” for aging adults [10].

## The (In)visible Impacts of Inequitable Participation

The rapidly growing demographic of older adults is a diverse—not static—population. Throughout the aging lifespan, there is a considerable spectrum of physical and cognitive challenges, social needs, economic situations, and health experiences. According to the National Institute on Aging, 1 in 4 adults aged 65 and older is socially isolated [11]. Aging adults are a high-risk group for social isolation and loneliness, a leading indicator of which is the size and diversity of a person’s social network [12, 13]. Compared to other populations, older adults have smaller social circles because of a variety of factors including deaths of family and friends, retirement, declining health, mobility challenges, social isolation, and perceptions of loneliness [14].

Digital exclusion doesn’t just intensify social exclusion, it also impacts health, well-being, and quality of life, especially for underserved older adults [15, 16]. Residences without broadband reflect existing social and racial inequalities, with those who are less digitally literate coming disproportionately from populations with lower socioeconomic status, lower levels of education, and more advanced age [4, 17].

The increasing reliance on digital tools across overlapping life domains will create further imbalances between “those who have skills and access to digital tools and those who do not” [5]. Consequently, those most in need of access to people, information, and relevant resources are least likely to have and benefit from essential equipment (e.g., devices), reliable and affordable internet access (e.g., broadband), and digital literacy skills [4]. Ignoring digital exclusion amongst older adults because of age-related stigma would mean dismissing the needs and capacities of approximately 1.7 million North Carolinians who are aged 65 or older [8].

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Address correspondence to Zachary White, 1900 Selwyn Ave, Charlotte, NC 28274 (whitez@queens.edu).

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## Digital Exclusion Isn't Confined to One Group

Aging adults don't just receive care from others, they are significant providers of informal care. Approximately 23% of the population has at least one parent aged 65 or older and is also caring for a child younger than 18 or supporting an adult child; of this sandwich generation of intergenerational caregivers, 43% are over age 50 [18]. And familial care needs are only growing: in 2015, 43 million adults in the United States provided some type of care for an aging adult or child, and in 2020 53 million adults provided care for an aging adult or child [19], totaling an estimated 34 billion hours of care with an economic value approximating \$470 billion [20].

Older adults must be able to competently and confidently find information and resources for themselves and their loved ones, share information, coordinate support from close and far away, provide health updates to family and friends, access and use online banking, create doctor appointments in person and online, arrange transportation options, manage food delivery, refill prescriptions, connect with other caregivers using social media, and conduct virtual visits with providers. Despite these essential digital care competencies, 28% of caregivers aged 50–64 and 55% of caregivers aged 65 and older say they “never” use technology (e.g., smart phone, internet, computer, etc.) in their caregiving roles. This perceived usage divide also underscores significant age disparities when it comes to comfort in using technology in caregiving [21]. Digital exclusion affects both those who give and receive care, disrupting an all-too-unnoticed but vital lifeline of interdependence that impacts all of our families and communities.

## Social Capital and Social Exclusion: The Invisible Costs of Digital Inequity

A significant divide in skills and usage still exists for the older population [22]. Older adults are vulnerable to digital exclusion because they are often the last group to adopt internet use, limiting the benefits of accessing and utilizing online health information [23]. Second, concerns about the anticipated complications and challenges associated with internet usage also lessen internet engagement [24]. Third, skill deficits have been attributed to insufficient motivation related to doubting the perceived usefulness and relevance of the internet [25]. Inequities in access and use of online information, resources, support, and training reproduce and amplify existing social, economic, racial, and cultural disparities [26]. These obstacles not only discourage internet usage, they also inhibit older adults from using the internet to enhance much-needed social capital [27].

Social capital, which is public and available through—and because of—relationships, is a resource that is often overlooked [28]. When gained from informal relationships with family, friends, neighbors, peers, and acquaintances—both in person and online—social capital can: 1) deepen existing relationships, and 2) broaden access to more diverse

networks of people, information, resources, support, and wisdom. When a person is situated within an ecology of relationships, interactional experiences of trust, goodwill, empathy, reciprocity, and engagement in common activities can enhance their ability to benefit from social resources [29]. Social capital makes it possible for individuals to both give and receive meaningful help and support; creates greater access to diverse and relevant programs, services, and opportunities not necessarily available within existing networks; and fosters participation in individual and collective action [28].

Older adults who are embedded in networks that provide access to a “wider range of social ties” report more well-being and happiness and lower levels of loneliness and anxiety [27]. Yet, adults are ever more vulnerable to unequal distributions of social capital as they age because of dissipating relational pathways to people and information, which are exacerbated by digital exclusion [30, 31].

The more one uses the internet, the more they can accrue social capital, which can improve feelings of trust, increase opportunities to give and receive support, and positively shape the ways in which users conceive of going online as a tool for connection [32]. For those excluded, however, the cycle of (dis)connection between social capital and internet usage can be pernicious, as socioeconomically disadvantaged older adults are less likely to use the internet, further segregating them from immediate and long-term benefits of social capital [20–32].

## Rethinking Digital Literacy for Older Adults

Too often, technology alone is equated with innovation, especially for younger technological adopters. This unidimensional orientation misses an opportunity to acknowledge the significant assets older adults bring to connection literacy endeavors that encompass meaningful opportunities to engage with people, resources, and information across multiple modalities (e.g., face-to-face, online, video, texting, etc.). Instead of exclusively featuring a deficit-based approach highlighting what aging adults “don't know how to do online,” connection literacy programming and strategies should more fully leverage the potent synergies between social capital and digital literacy by incorporating the following principles:

***Digitally inclusive practices*** should address affordable broadband internet service, internet-enabled devices, adherence to universal design practices for digital literacy training, use of digital navigators, ongoing technical support, and a train-the-trainer model. Together, these interconnected elements will situate digital literacy as part of a sustainable information communication ecosystem that supports users' evolving digital inclusion needs and goals [30].

***Offline social capital that older adults already possess***—skills, values, attitudes, wisdom, goodwill, support, empathy, and local knowledge—should be leveraged to complement ongoing digital literacy endeavors [33]. Older adults' offline

experiences can increase their initial motivation to use information technology and can also facilitate access to more varied information and resources. When participants are encouraged to view themselves as learners and teachers, helpers and helped, givers and receivers of care, all participants can benefit from the social translation of what is data and information found online into usable knowledge based on shared personal experience and insights (e.g., wisdom). The process of enhancing informal social capital embeds digital literacy skills within a network of interdependence and serves as an additional motive for enhancing connection literacy endeavors that seek to transform information into empowerment [33].

Since motivation is a significant barrier for older adults [34], **support is instrumental in initial online adoption and usage** [32]. For socioeconomically disadvantaged users in particular, internal motivation and perceived external support from acquaintances can increase older adults' online confidence, self-efficacy and resilience, and sustained usage [35]. Digital inclusion programming is also likely to be more compelling when it helps people achieve goals that are deemed relevant to their lives [34]. As such, these endeavors should not be conceived nor advertised as "technology classes;" rather, digital literacy is about learning how to more effectively deepen existing connections (e.g., learning and becoming more confident at using video chat platforms, texting, and social media), support family and friends (e.g., learning to create online calendars for food drop-offs, organize transportation, invite and schedule opportunities for family and friends to complete necessary tasks and errands), and expand connections to needed resources and opportunities [32].

**Synchronous sessions** (in-person, hybrid, online synchronous) are indispensable in creating meaningful social experiences for older adults that foster closeness, connection, collective sense-making, and problem-solving [36]. Planned and ongoing sessions, in collaboration with trusted non-profit organizations, libraries, and/or community gathering spaces, should not be guided by speed and efficiency (the language of technology) but by a relational pace that nurtures trust as realized through real-time feedback, interaction, and peer-to-peer learning [37].

**The experience of "going online" needs to be reframed.** Instead of conceiving of going online as an exclusively solo act, digital literacy programs should socialize the experience of online resource inquiry, evaluation, and usage of information. Grounding the online experience in social relationships is necessary to ensure needed resources and information—across all media—are found, understood, evaluated, and used. Relationships of trust and reciprocity can enhance the likelihood that static online resources become more dynamic: found and shared at the right time; shared and used in multiple media (e.g., online, in person, via text, hard copy); contextualized in meaningful and local ways that beget further dialogue; and, if relevant, boost uti-

lization of resources [38]. Further, going online—"together with peers," as a social act—provides an ongoing structure and process for identifying and responding to the ever-evolving threats of cyber scams and fraud. Becoming more confident and competent in evaluating what and who can be trusted across new media, making sense of contradictory information, and detecting fraudulent schemes all require an ongoing process of vigilance, not a one-time effort. The ability to maximize protection in the midst of connection can be enhanced when there are recurring and planned opportunities not only to develop skills, but also to employ collective sense-making [39, 40].

Within an ecology of connection literacy, aging adults can be co-creators of care and active participants across overlapping domains of life. Innovation amongst and between older adults can be created, applied, and fostered in dynamic interactions leveraging technology and new media, embedded relationships, and ongoing support designed to augment offline and online experiences. Drawing on the resources of social capital and digital literacy that have yet to be fully leveraged, we can ensure a more equitable and inclusive future for older adults as they become empowered to age in place and connect in ways that affect us all. **NCMJ**

**Zachary White**, PhD associate professor, Knight School of Communication, Queens University of Charlotte, Charlotte, North Carolina.

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