

Special Article

A Double Burden of Exclusion? Digital and Social Exclusion of Older Adults in Times of COVID-19

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Abstract

The COVID-19 pandemic has excluded older adults from a society based on physical social contact. Vulnerable populations like older adults also tend to be excluded from digital services because they opt not to use the internet, lack necessary devices and network connectivity, or inexperience using the technology. Older adults who are frail and are not online, many of whom are in long-term care facilities, struggle with the double burden of social and digital exclusion. This paper discusses the potential outcomes of this exclusion and provides recommendations for rectifying the situation, with a particular focus on older adults in long-term care facilities.

Keywords: Aging, COVID-19, Digital inequality, Exclusion, Internet

The current COVID-19 pandemic has affected vulnerable populations disproportionately. In particular, it has excluded older adults from in-person contact with others in society. Older adults are at high risk of COVID-19 and often experience critical courses of the disease due to multiple morbidities and pre-existing conditions (Centers for Disease Control and Prevention [CDC], 2020). As such, they must shelter in place and maintain physical distance from others during this pandemic. These behavioral changes will likely affect older adults' social ties and quality of life. At the same time, older adults are less likely than younger people to be able to take advantage of the opportunities enabled by modern information and communication technologies (ICTs) such as smartphones, tablets, and high-speed internet services. This is because older adults tend to opt not to use the internet, cannot afford internet access or ICT devices, lack technologies with which to use video-chat apps to virtually connect with people, or lack the skills to use ICTs even if they do have access. For older adults in long-term care facilities

(LTCFs), physical or cognitive limitations may prevent them from even being able to use ICTs at all on their own without assistance from others. Within older adults, significant variation exists in ability, willingness, and access to use ICTs. We focus on older adults in the community and those in LTCFs to illuminate key challenges *each group* may face during COVID-19 and other similar situations.

Older adults who are frail and are not online struggle with the double burden of social exclusion. This missing participation also influences whether older adults can access online services and content, such as health information, digital social events, social networking, and online shopping. A recent U.S. survey from March, 2020 found that only 20% of individuals aged 65 and older living in the community reported participating in an online social gathering or virtual party with friends or family (Vogels, 2020). Non-participation in the digital world may lead older adults to feel social exclusion during times of physical distancing (Xie et al., 2020).

Digital technologies pervade all aspects of life. Recent years have seen the digitalization of everyday life by technological innovation. The global social-distancing mandates during COVID-19 minimize social contact, but many people circumvent these mandates' limitations by using ICTs to remain connected (Marston et al., 2020; Sheerman et al., 2020). The internet is a key example of modern digital technology that enables people to overcome physical distance through digital social connections.

Internet Access Among Older Adults

As internet access has become widespread globally, empirical studies have noted a digital gap between younger and older adults (Hunsaker and Hargittai, 2018). In the United States, 27% of individuals aged 65 years and older still do not use the internet (Anderson et al., 2019). The situation is similar in Europe. A nationally representative survey conducted across 17 European countries showed that 51% of people age 50 and older do not use the internet (König et al., 2018). Internet use among older adults was influenced by personal factors (i.e., age, gender, education, income, health, prior technology experience), social salience (i.e., internet use among members of their social networks), and national contexts (e.g., national wealth, ICT infrastructure).

Even if older adults do use the internet, they may do so in more basic ways than younger age groups (van Boekel et al., 2017). Many older adults prefer to have in-person interaction and phone communication (Yuan et al., 2016).

ICT Use in LTCFs

While technology use in healthy older adults has been increasing in recent years (Schulz et al., 2015), the situation differs for those with multiple morbidities and functional impairments and for those in advanced old age. This represents a challenge, as the internet and devices such as smartphones could be important resources for vulnerable older adults (Fang et al., 2018; Schломann et al., 2020). For example, internet use may facilitate access to social networking and exchange. This is especially important for residents of LTCFs who are often limited in their ability to leave LTCFs, even for outdoor activities. ICT use can help residents overcome social and spatial barriers in the LTCF environment (Winstead et al., 2013).

While ICT use has potential ramifications for maintaining social contact, data on ICT use in LTCFs remain rare, with a handful of notable exceptions (Berkowsky et al., 2015; Cotten et al., 2017; Francis et al., 2019; Rikard et al., 2018; Seifert et al., 2017). For example, Seifert et al. (2017) have shown that 14% of retirement home residents used the internet. Seifert et al. (2017) also found that, compared with non-users, internet users were more likely to be younger,

healthier, and functionally unimpaired. Internet users also described themselves as having higher autonomy and life satisfaction (Seifert et al., 2017).

In a recent study ($N = 1,863$) from North Rhine-Westphalia, Germany (Schломann et al., 2020) with people aged 80 and older who lived in private households and LTCFs, researchers found that fewer than 3% of people in LTCFs used internet-connected ICT devices. The authors also noted that ICT device adoption was associated with the living environment and individual characteristics, including functional health, chronological age, education, and technology interest (Schломann et al., 2020). These results indicate that individual characteristics and the living environment are both related to technology usage among the oldest age groups. Both Rikard et al. (2018) and Berkowsky et al. (2015) examined which factors resulted in older adults in assisted and independent living communities in the United States discontinuing their ICT use over time. Both studies found that older age, increased frailty (measured through daily-living activities limitations), and participation in non-ICT activities were related to discontinued ICT use.

Given their declining health conditions that often necessitate movement into LTCFs (Cotten et al., 2017), added to their lower likelihood of being ICT users, older adults in LTCFs are particularly vulnerable to social exclusion. A combination of co-morbidities and manifestations of the double burden of exclusion could exacerbate COVID-19's impacts on older adults in LTCFs. Increasing international evidence shows that COVID-19 takes a particular toll on older adults in LTCFs (Comas-Herrera and Zalakain, 2020).

Social Participation Through Digital Inclusion

Despite the positive digital participation outcomes for people worldwide during the COVID-19 pandemic, older adults risk feeling doubly excluded, first from physical contact and second by digital exclusion from a digitally dominated society. From a sociological perspective, social exclusion is "a multidimensional, relational process of progressive social disengagement, one having interrelated negative consequences for quality of life and well-being of the individual" (Böhnke and Silver, 2014, p. 6064). Digital exclusion means exclusion from a society dominated by the internet and other digital technologies in many areas of everyday life. Exclusion from participation in these digital areas can sometimes lead to subjective feelings of social exclusion (Seifert et al., 2018).

Focusing only on digital events for social participation during the COVID-19 pandemic could potentially perpetuate ageism. That is, older non-users of technology are viewed as outsiders, in addition to the already-prevailing view of older adults as being frail and physically isolated by the COVID-19 pandemic. As more and more service

providers begin to offer certain information and services on an online-only basis (or charge an extra fee for offline services), older adults who are not using the internet will be increasingly left behind. If inclusion in current society means active participation in the digital world, then older adults who are not online or otherwise active on the internet risk being socially excluded. Society must therefore work together to minimize the risk of social exclusion vis-à-vis digital content on the internet, especially for important health information or initiatives for social participation in times of physical distancing.

Enhancing Social and Digital Participation

The COVID-19 pandemic has highlighted the challenges for people who lack access to or have adequate skills to successfully use ICTs. It is important to note that we are using this current pandemic as an example; but, the solutions can help manage future pandemics as well. Similarly, we are using older adults as an example of vulnerable populations, which include but are not limited to the older population. Vulnerable populations, like racial/ethnic minorities, people with disabilities, homeless people, to name just a few, face many of the same challenges offline older adults face and thus the solutions may benefit them as well.

The current pandemic's spread also means that societies must consider whether internet access is a basic human right and, if it is, ensure that everyone has internet access and the skills and/or technical support to effectively navigate the online world. For older adults, doing so may necessitate additional technology access and training, which may need to be tailored to suit varying experience, disability, and cognitive ability levels (Berkowsky et al., 2013; Winstead et al., 2013). As noted above, various countries globally still have significant numbers of older adults who lack access to or have skills to use ICTs. Technology developers and retailers must determine ways to decrease the costs of ICTs, and to make them easier to use for older adults and others who may not be technologically savvy (Cotten et al., 2017; Robinson et al., 2020). Older adults' special learning needs (Czaja et al., 2019), as well as their skills, must be considered in the design of various technologies. Similarly, ensuring that technology is easier to maintain over time in relation to changing interfaces, passwords, and maintenance will be critical for ensuring that older adults can stay online once they go online (Cotten, Forthcoming).

For individuals in LTCFs who may lack the cognitive or physical capabilities necessary to use ICTs, staff should be available to assist residents in using ICTs. In particular, video applications may be more useful for older adults in LTCFs, as they need not type (as is the case with emails or text messages) and can instead use visual and auditory modes of communication. The infrequent ICT use in these facilities, however, means that LTCFs may have to provide

ICTs that staff can use to help residents maintain communication and contact with others (Robinson et al., 2020). Staff will thus need to be proficient in using any ICTs the facility provides; they may also be supported by, for example, tech coaches who provide instructions and technical assistance (Moyle et al., 2018). Enhancing ICT use among older adults will require training for residents, staff, and support personnel, with necessary resources.

Providing ICTs to groups on the “wrong side” of the digital divide may be easy; the difficult part is ensuring that people have the skills to use ICTs to maintain contact and find information over time, particularly during an unprecedented time such as a pandemic. Such an approach is certainly more difficult to implement during times of physical isolation, but it does open a question about the extent to which the need for ICT equipment in LTCFs can be satisfied and to what extent training and support for ICT use could be demanded from these facilities.

The current pandemic should, first, serve as a reminder of the existing “digital divide” and the fact that some older adults, as well as other groups, are excluded from a digitally connected society. Second, it should also be viewed as an opportunity to bring all generations together by helping bridge digital divides (British Society of Gerontology, 2020). Furthermore, this should highlight the importance of not creating a new form of ageism, with people who use the internet having sovereignty over digital information. Older adults who are not using the internet or digital online services during this pandemic should not be viewed as frail and unwilling to use those digital offers; rather, their decisions should be respected and alternatives should be employed (e.g., writing letters) when possible or support should be offered to them to help them use ICTs. Awareness of the “digital divide” and offerings of ICT support should come, not only from designers, developers, and manufacturers of ICT and internet systems, services, and products, but also from social ties—particularly family members, friends, and neighbors—which may help enhance social support and engagement (Francis et al., 2018). This is crucial for promoting widespread digital inclusion (Damodaran et al., 2015) during COVID-19 and future pandemics.

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References

- Anderson, M., Perrin, A., Jiang, J., & Kumar, M. (2019). 10% of Americans don't use the internet. Who are they? Retrieved November 19, 2019, from the Pew Research Center website: <https://www.pewresearch.org/fact-tank/2019/04/22/some-americans-dont-use-the-internet-who-are-they/>
- Berkowsky, R. W., Cotten, S. R., Yost, E. A., & Winstead, V. P. (2013). Attitudes towards and limitations to ICT use in assisted and independent living communities: Findings from a specially-designed technological intervention. *Educational Gerontology, 39*(11), 797–811. doi: [10.1080/03601277.2012.734162](https://doi.org/10.1080/03601277.2012.734162)
- Berkowsky, R. W., Rikard, R. V., & Cotten, S. R. (2015). Signing off: Predicting discontinued ICT usage among older adults in assisted and independent living. In J. Zhou & G. Salvendy (Eds.), *Human aspects of IT for the aged population: Design for everyday life* (Vol. 9194, pp. 389–398). Springer, Cham. doi: [10.1007/978-3-319-20913-5_36](https://doi.org/10.1007/978-3-319-20913-5_36)
- Böhnke, P., & Silver, H. (2014). Social exclusion. In A. C. Michalos (Ed.), *Encyclopedia of quality of life and well-being research* (pp. 6064–6069). Springer, Dordrecht. doi: [10.1007/978-94-007-0753-5_2757](https://doi.org/10.1007/978-94-007-0753-5_2757)
- British Society of Gerontology. (2020). *BSG statement on COVID-19*. Retrieved from <https://www.britishgerontology.org/publications/bsg-statements-on-covid-19/statement-one>
- Centers for Disease Control and Prevention (CDC). (2020). *Older adults*. Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html>
- Comas-Herrera, A., & Zalakain, J. (2020). *Mortality associated with COVID-19 outbreaks in care homes: Early international evidence*. International Long-Term Care Policy Network. Retrieved May 11, 2020, from <https://lccovid.org/wp-content/uploads/2020/05/Mortality-associated-with-COVID-3-May-final-5.pdf>
- Cotten, S. R. (Forthcoming). Technologies and aging: Understanding use, impacts, and future needs. In D. Carr & K. F. Ferraro (Eds.), *Handbook of aging and the social sciences*. Academic Press. <https://www.elsevier.com/books/handbook-of-aging-and-the-social-sciences/ferraro/978-0-12-815970-5>
- Cotten, S. R., Yost, E. A., Berkowsky, R. W., Winstead, V., & Anderson, W. A. (2017). *Designing technology training for older adults in continuing care retirement communities*. CRC Press.
- Czaja, S. J., Boot, W. R., Charness, N., & Rogers, W. A. (2019). *Designing for older adults: Principles and creative human factors approaches*. CRC Press.
- Damodaran, L., Gilbertson, T., Olphert, W., Sandhu, J., & Craig, M. (2015). Digital inclusion—the vision, the challenges and the way forward. *International Journal on Advances in Internet Technology, 8*(3), 78–92.
- Fang, Y., Chau, A. K. C., Wong, A., Fung, H. H., & Woo, J. (2018). Information and communicative technology use enhances psychological well-being of older adults: The roles of age, social connectedness, and frailty status. *Aging & Mental Health, 22*(11), 1516–1524. doi: [10.1080/13607863.2017.1358354](https://doi.org/10.1080/13607863.2017.1358354)
- Francis, J., Kadylak, T., Makki, T. W., Rikard, R. V., & Cotten, S. R. (2018). Catalyst to connection: When technical difficulties lead to social support for older adults. *American Behavioral Scientist, 62*(9), 1167–1185. doi: [10.1177/0002764218773829](https://doi.org/10.1177/0002764218773829)
- Francis, J., Rikard, R. V., Cotten, S. R., & Kadylak, T. (2019). Does ICT use matter? How information and communication technology use affects perceived mattering among a predominantly female sample of older adults residing in retirement communities. *Information, Communication & Society, 22*(9), 1281–1294. doi: [10.1080/1369118X.2017.1417459](https://doi.org/10.1080/1369118X.2017.1417459)
- Hunsaker, A., & Hargittai, E. (2018). A review of internet use among older adults. *New Media & Society, 20*(10), 3937–3954. doi: [10.1177/1461444818787348](https://doi.org/10.1177/1461444818787348)
- König, R., Seifert, A., & Doh, M. (2018). Internet use among older Europeans: An analysis based on SHARE data. *Universal Access in the Information Society, 17*(3), 621–633. doi: [10.1007/s10209-018-0609-5](https://doi.org/10.1007/s10209-018-0609-5)
- Marston, H. R., Musselwhite, C., & Hadley, R. (2020). *COVID-19 vs social isolation: The impact technology can have on communities, social connections and citizens* [Blog]. British Society of Gerontology—Ageing Issues. Retrieved from <https://ageingissues.wordpress.com/2020/03/18/covid-19-vs-social-isolation-the-impact-technology-can-have-on-communities-social-connections-and-citizens/>
- Moyle, W., Jones, C., Murfield, J., Dwan, T., & Ownsworth, T. (2018). “We don't even have Wi-Fi”: A descriptive study exploring current use and availability of communication technologies in residential aged care. *Contemporary Nurse, 54*(1), 35–43. doi: [10.1080/10376178.2017.1411203](https://doi.org/10.1080/10376178.2017.1411203)
- Rikard, R. V., Berkowsky, R. W., & Cotten, S. R. (2018). Discontinued information and communication technology usage among older adults in continuing care retirement communities in the United States. *Gerontology, 64*(2), 188–200. doi: [10.1159/000482017](https://doi.org/10.1159/000482017)
- Robinson, L., Schulz, J., Khilnani, A., Ono, H., Cotten, S. R., McClain, N., Levine, L., Chen, W., Huang, G., Casilli, A. A., Tubaro, P., Dodel, M., Quan-Haase, A., Ruiu, M. L., Ragnedda, M., Aikat, D., & Tolentino, N. (2020). Digital inequalities in time of pandemic: COVID-19 exposure risk profiles and new forms of vulnerability. *First Monday, 25*(7). doi: [10.5210/fm.v25i7.10845](https://doi.org/10.5210/fm.v25i7.10845)
- Schlomann, A., Seifert, A., Zank, S., & Rietz, C. (2020). Assistive technology and mobile ICT usage among oldest-old cohorts: Comparison of the oldest-old in private homes and in long-term care facilities. *Research on Aging, 42*(5-6), 163–173. doi: [10.1177/0164027520911286](https://doi.org/10.1177/0164027520911286)
- Schulz, R., Wahl, H. W., Matthews, J. T., De Vito Dabbs, A., Beach, S. R., & Czaja, S. J. (2015). Advancing the aging and technology agenda in gerontology. *The Gerontologist, 55*(5), 724–734. doi: [10.1093/geront/gnu071](https://doi.org/10.1093/geront/gnu071)
- Seifert, A., Doh, M., & Wahl, H.-W. (2017). They also do it: Internet use by older adults living in residential care facilities. *Educational Gerontology, 43*(9), 451–461. doi: [10.1080/03601277.2017.1326224](https://doi.org/10.1080/03601277.2017.1326224)
- Seifert, A., Hofer, M., & Rössel, J. (2018). Older adults' perceived sense of social exclusion from the digital world. *Educational Gerontology, 44*(12), 775–785. doi: [10.1080/03601277.2019.1574415](https://doi.org/10.1080/03601277.2019.1574415)
- Sheerman, L., Marston, H. R., Musselwhite, C., & Morgan, D. (2020). COVID-19 and the secret virtual assistants: The social weapons for a state of emergency. *Emerald Open Research, 2*, 19. doi: [10.35241/emeraldopenres.13571.1](https://doi.org/10.35241/emeraldopenres.13571.1)

- van Boekel, L. C., Peek, S. T., & Luijckx, K. G. (2017). Diversity in older adults' use of the internet: Identifying subgroups through latent class analysis. *Journal of Medical Internet Research*, *19*(5), e180. doi: [10.2196/jmir.6853](https://doi.org/10.2196/jmir.6853)
- Vogels, E. A. (2020). From virtual parties to ordering food, how Americans are using the internet during COVID-19. Retrieved May 10, 2020 from Pew Research Center website: <https://www.pewresearch.org/fact-tank/2020/04/30/from-virtual-parties-to-ordering-food-how-americans-are-using-the-internet-during-covid-19/>
- Winstead, V., Anderson, W. A., Yost, E. A., Cotten, S. R., Warr, A., & Berkowsky, R. W. (2013). You can teach an old dog new tricks: A qualitative analysis of how residents of senior living communities may use the web to overcome spatial and social barriers. *Journal of Applied Gerontology*, *32*(5), 540–560. doi: [10.1177/0733464811431824](https://doi.org/10.1177/0733464811431824)
- Xie, B., Charness, N., Fingerman, K., Kaye, J., Kim, M. T., & Khurshid, A. (2020). When going digital becomes a necessity: Ensuring older adults' needs for information, services, and social inclusion during COVID-19. *Journal of Aging & Social Policy*, *32*(4-5), 460–470. doi: [10.1080/08959420.2020.1771237](https://doi.org/10.1080/08959420.2020.1771237)
- Yuan, S., Hussain, S. A., Hales, K. D., & Cotten, S. R. (2016). What do they like? Communication preferences and patterns of older adults in the United States: The role of technology. *Educational Gerontology*, *42*(3), 163–174. doi: [10.1080/03601277.2015.1083392](https://doi.org/10.1080/03601277.2015.1083392)