Digital Discrimination: Addressing Ageism in Design and Use of New and Emerging Technologies

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Digital technology is becoming increasingly integrated into everyday life, but aging populations have not fully participated in this technology revolution or benefited fully from today's connected and data-rich world — disparities characterized as the digital divide and data divide, respectively. According to research by FP Analytics (with support from AARP),[1] although 60 percent of the world's population is connected to the Internet, access to digital services is unevenly distributed, especially for older adults and people in low- and middle-income countries. Even within an advanced economy like the United States, 15 percent of adults age 50 or older do not have Internet access and 60 percent say the cost of high-speed Internet is a barrier to access.[2] Lack of digital access kept about 40 percent of older US adults from getting much- needed online services at home during the COVID-19 pandemic. This divide is deeper for women, who in developed nations are 21 percent less likely to be online and in developing countries 52 percent less likely to be online than men.[3] No or slow Internet access is just one of multiple barriers preventing many seniors from accessing or fully benefiting from digital services, which are rarely designed or provided with aging populations in mind or made accessible to people who may have limited physical and/or cognitive abilities.

The need to bridge the divides facing older individuals will only grow over time if patterns of digital discrimination[1] are allowed to persist. Not only are digital services and data applications becoming more prevalent, but the proportion of older adults is increasing due to changing demographics. Globally, there will be 1.4 billion people age 60 years old or older by 2030.[4] Within the United States, by 2034 the aging population is set to outpace its youth with a projected 77 million people age 65-plus compared with the projected 76.5 million people under 18.[5] At the same time, the working-age population is shrinking and is projected to decrease from 60 percent in 2020 to 54 percent by 2080.[6] As older populations grow, it is imperative that societies take steps to ensure that new and emerging technologies bring benefits to all people and do not deepen the digital divide: technology and data must be more accessible and digital fluency improved for everyone.

The Atlantic Council's GeoTech Center is working to identify and communicate what is required so that emerging technologies can enter use widely across the globe for public benefit while also identifying and mitigating potential risks, including to the aging population and underserved communities, globally. The Center thereby is an essential bridge between

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technologists and national and international policy makers, bringing together subject matter experts, thought leaders, and decision makers through purposeful convenings to consider the broader societal, economic, and geopolitical implications of new and emerging technologies; leverage technology to solve global challenges; and develop actionable tech policy, partnerships, and programs.

As discussed in a recent report,[7] the GeoTech Center shares AARP's concerns about the growing digital and data divides. The data divide can be reduced only if there is optimization in data processing, monitoring, and evaluation of the policies and programs from major stakeholders and alignment of public–private partnerships for social good. Monitoring the growth of digital skills and access to data is especially critical for tracking progress, yet a 2021 study found that of the 150 most influential technology companies, only 12 published impact assessments.[8] Key recommendations for stakeholders — including private-sector firms, governments, and civil society organizations — are the need to train a more inclusive generation of professionals; create new governance structures; and ensure equitable access, tracking, and control over data across society. These recommendations are especially important for aging adults and other demographic groups historically left offline and left behind in the rush to introduce new technologies and services into society.

As seniors become a larger component of the workforce and the importance of digital tools continues to grow, private-sector stakeholders who want to retain and benefit from the value such experienced workers can bring will need to double down on digital upskilling and reskilling for their employees. Moreover, as the proportion of the conventional working- age population declines, seniors and other underrepresented sectors of society will become an increasingly important segment of the workforce. To attract, retain, and support a more diverse workforce, companies will need to be deliberate and equitable in creating inclusive working conditions and lifelong learning opportunities to maintain digital literacy.[9]

It is also important to note that just offering digital literacy lessons is not enough; for the training sessions to be effective, older adults must be engaged and enjoy them. Digital training for older adults works best when they are delivered by institutions that seniors trust and have experience working with. These institutions can range from libraries to religious networks. Additionally, the learning

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programs and instructors themselves must be compatible with the needs of the users. Older adults tend to engage better with instructors who have shared their experiences or are seniors themselves. They also tend to learn better with one-on-one instruction, which can be more personalized than automated training sessions.[3]

Although a range of ongoing activities exist across the public and private sector to bridge the digital and data divides associated with current technology, all sectors need to proactively work together to ensure that future technologies benefit aging populations and do not deepen those divides. For example, as discussed in a 2019 White House report, various emerging technologies have significant potential to assist older adults with successfully aging in place.[10] For these and other technologies to enter into use in ways that achieve that potential, the knowledge, skills, and abilities of seniors (and others historically left behind by technology) must be considered throughout the design process and product life cycle. Among the many distinct needs and preferences to be considered are trust; privacy; and physical abilities including vision, hearing, and dexterity.

Finally, beyond simply considering consumer needs, technologists should include the aging population, caregivers, and others directly in the development process. Having a more inclusive, user-centered design process for a range of technologies should become common procedure — both for technologies used at home and for those essential for success in the future workplace. For technologies to support aging in place, it is important to include older individuals themselves and not just caregivers, recognizing that not all people will have access to caregivers or expensive care resources. Given that most technology is developed with younger customers in mind, achieving this vision of inclusive development will require additional public–private partnerships that can further bridge the gap between a more diverse set of users and developers. Bridging this gap would not only make technologies more effective but also provide increased economic opportunity. People with disabilities, many of whom are seniors, have a total spending power of approximately $6 trillion. Including this population in the design process could encourage them to become future consumers, therefore creating economic value for technology companies.[3] The establishment of additional smart partnerships will be crucial in the next decade if we are to prevent age from being a barrier to benefiting from new and emerging technologies in society and the future of work. ●

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[1] https://fpanalytics.foreignpolicy.com/wp-content/uploads/sites/5/2022/09/Expanding-Digital-Inclusion-Aging-Populations-AARP.pdf.

[2] https://press.aarp.org/2021-5-12-AARP-Urges-Older-Americans-Struggling-to-Access-and-Afford-High-Speed-Internet-to-Enroll-in-New-Emergency-Broadband-Benefit-Program#:~:text=According%20to%20the%20study%2C%2015,by%20the%20Federal%20Communications%20Commission.

[3] FP Analytics and AARP, Digital Inclusion for All: Ensuring Access for Older Adults in the Digital Age, 2023.

[4] https://www.who.int/news-room/fact-sheets/detail/ageing-and-health.

[5] https://www.census.gov/library/stories/2020/06/working-age-population-not-keeping-pace-with-growth-in-older-americans.html.

[6] https://www.census.gov/library/stories/2020/06/working-age-population-not-keeping-pace-with-growth-in-older-americans.html.

[7] https://www.atlanticcouncil.org/in-depth-research-reports/report/the-data-divide-how-emerging-technology-and-its-stakeholders-can-influence-the-fourth-industrial-revolution/.

[8] https://www.worldbenchmarkingalliance.org/publication/digital-inclusion/.

[9] See, for example, a discussion of artificial intelligence in the context of building human capacity and preparing for labor market transitions in the age of automation at https://www.atlanticcouncil.org/programs/geotech-center/ai-connect/ai-connect-webinar-7/.

[10] https://trumpwhitehouse.archives.gov/wp-content/uploads/2019/03/Emerging-Tech-to-Support-Aging-2019.pdf

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