Poor health contributing to digital divide among older Singaporeans
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Singapore’s many ambitious digital inclusion initiatives are doing a lot to arm all Singaporeans with digital skills and literacy to go online safely and confidently. This is especially important for population sub-groups with low internet usage, such as adults aged 60 years and older. While it is commonly assumed that older adults do not use the internet mainly because they lack access or digital skills, scientists from Duke-NUS Medical School, Nanyang Technological University, Singapore (NTU Singapore) and University of Massachusetts, found that one in 15 Singaporeans aged 60 years and older face additional difficulty in using the internet because of poor health.

Increasingly, everyday activities and services are shifting online, making the ability to use the internet an essential skill. The current COVID-19 pandemic has further highlighted the importance of digital connectivity, especially for older and vulnerable adults to have continued contact with family and friends. Digital Ambassadors, a Singapore Government initiative to ensure all Singaporeans have access to the fundamental digital tools, helps older adults learn how to use technological tools.

Analyzing data from almost 4,000 older Singaporeans who took part in a national survey conducted by Duke-NUS’ Center for Aging Research & Education (CARE) in 2016-2017, the team found that one in 15 respondents had difficulties using the internet because of poor health. And 57 percent did not use the internet because of other reasons.

“Our findings suggest that health-related difficulties are relevant in understanding the digital divide between the young and the old. Concurrent with optimizing the health of older persons, policymakers should consider supporting research and development into assistive technology and design aimed at helping older internet users overcome health-related difficulty in internet use,” said Assistant Professor Rahul Malhotra, head of research at Duke-NUS’ CARE. Asst Prof Malhotra is also a faculty at the Duke-NUS' Health Services and Systems Research Program.

The study, which was published in The Gerontologist, found that those who were male, were less educated, and those who had limitations in instrumental activities of daily living such as using the phone and doing housework, were more likely to face challenges in using internet due to poor health. The team also found that those of higher age, females, those with less education, and those residing in low-income housing were more likely not to use the internet for non-health-related reasons.

"In this study, we were not able to identify the specific obstacles faced by those not using the internet for non-health-related reasons. But hurdles such as the lack of digital literacy and the cost of devices and internet service provision likely play a role," said Asst Prof Malhotra.

A particularly concerning finding of the study,
relevant in the current time when safe distancing is a new norm for preventing the spread of COVID-19 infections, was that health-related difficulties in internet use created additional barriers to online communication between older adults and their family and friends, and resulted in poor social connections and support. Cumulatively, this resulted in a lower quality of life for older adults.

"Health-related difficulties in using the internet matter, because it means that teaching digital skills and offering cheap internet access to seniors may not fully address the digital divide. Online communication tools are thought to benefit seniors with physical limitations, since it does not require travel. Unfortunately for some seniors, health issues stand in the way of even their internet use. Providing social support to these older adults through non-digital means thus remains key, even as we work towards identifying and minimizing health-related difficulties in internet use," said Assistant Professor Shannon Ang of the Sociology Department at NTU Singapore.

"Singapore is addressing aging as a prioritized national agenda by studying trends and implications, and recommending solutions. This collaborative study on the ability of the elderly to use the internet shows that it is imperative to help older adults who rely on the internet to stay socially connected, which will aid in their ability to maintain a high overall quality of life as they age," said Professor Patrick Casey, Senior Vice-Dean for Research at Duke-NUS.

In future work, the research team plans to gain a deeper understanding of the specific health problems that directly lead to difficulty in internet use among older adults. These may include poor vision and loss of fine motor skills.


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