



Digital inequity and the determinants among racialized seniors in Calgary

Introduction

This study, conducted by the University of Calgary in collaboration with The City of Calgary, investigates digital inequity among racialized and immigrant seniors. With Calgary's population being 33.3% landed immigrants and more individuals choosing to age in place (Statistics Canada, 2021), we felt it was important to conduct a more careful analysis of the multi-dimensionality of digital inequity. This will help to support the City's Digital Equity Strategy by identifying barriers, patterns, and causes of digital exclusion to inform actionable and targeted interventions.

Research Overview

The study was funded by Social Sciences and Humanities Research Council (SSHRC) and was approved by the Conjoint Health Research Ethics Board (CHREB) at the University of Calgary. Publications and reports derived from this study present aggregate data only.

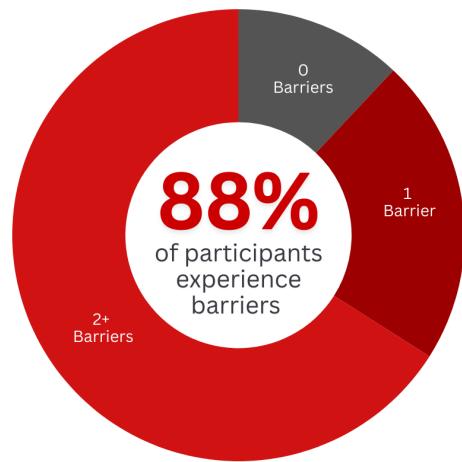
The study used a community-engaged research approach, with research question and methods co-designed to align with the City's priorities and produce actionable insights. Data was collected on a wide range of socio-demographic variables including age, gender, country of origin, duration and status of residency in Canada, employment status, household income, and education level. Questions explored participants awareness of and access to digital inclusion initiatives, technology usage patterns and purpose, and challenges when using technology. A digital technology acceptance measurement tool to use to assess participants' perceptions, attitudes, and experiences related to digital inclusion.

A total of 394 surveys were conducted in nine (9) different languages to reach Calgarians aged 65+ in diverse ethnic communities. The research team worked with community-based organizations to share the study with their members. Each participant received a \$10 gift card as an honorarium for their time.

Participant Details

- 394 participants
- 94% Canadian Citizens or permanent residents
- 66% female
- 57% aged 70–80 years
- 50% Southeast Asian, forming the largest ethnic group

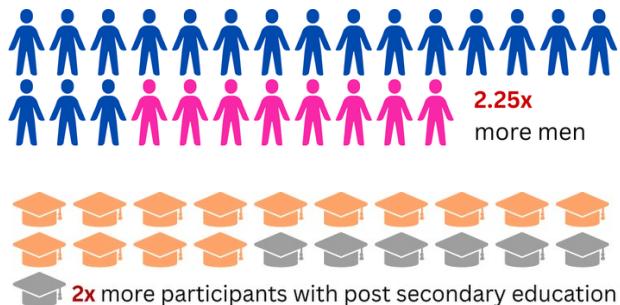
Key Insights



Due to digital literacy, accessibility, affordability, awareness, and lack of cultural understanding

- **10%**
fewer women report feeling skilled at using technology
- **20%**
more participants with post-secondary education expressed a positive attitude toward technology and felt skilled or capable in using it
- Participant responses remain consistent irrespective of years lived in Canada

Gender and level of education matters when it comes to technology



Indicated they did not experience barriers to technology use.

- **10%**
more women report strong feelings of fear using technology
- **20%**
fewer participants with post-secondary education reported that their technology use was limited by finances or accessibility
- Income distribution indicates socioeconomic barriers. Despite 56% of participants holding a diploma or higher, 56% report earnings below \$45,000 annually and 19% report no income

General Findings

Barriers to technology use

Results when participants are asked to identify the support services necessary for digital engagement show a diverse range of barriers underscoring the need for varied supports to promote digital inclusion.

- 38% of participants indicating they are not aware of available supports
- 25% report the need for support with navigation and use of services online
- 15% indicate support is needed for affordability of devices and technology
- 13% indicate support with digital literacy (including online safety)
- 11% indicate accessibility of services and platforms (outside of navigation)

When asked what would change if barriers were removed, the findings echo what we heard in our broader public engagement in 2022 and underscore the crucial role of digital accessibility in improving various aspects of daily life, social engagement, and professional growth.

Attitude around technology

Despite barriers, attitude around technology was very positive

- 77% agree that technology enhances effectiveness of daily activities
- 83% like the idea of using technology
- 83% find technology to be useful
- participants of higher education show roughly 20% increase in strong agreement indicating that education influences attitude around technology

Beliefs around technology

Most participants feel capable of using technology with only 5% of male and 10% of female participants indicating that, even with support, they cannot use technology. When we examined the correlations between participants who experienced barriers and their beliefs around technology, we found little to no relationship between the two. However, external barriers such as financial limitations and accessibility remain significant constraints.

- 19% identify that technology is not accessible
- 14% identify that finances limit their use of technology

Apprehension and fear around technology

This area assesses what is known as Gerontechnology Anxiety (GA) by looking at emotional responses older adults have to technology, focusing on apprehension and fear. Results here told us that 53% of participants experienced apprehension and 58% experienced hesitation due to fear when using technology. This suggests that anxiety toward technology is a concern which may limit elderly racialized Calgarians willingness to adopt digital tools.

What is interesting in this area is that apprehension around using technology was 7% higher among individuals with higher education compared to those individuals with up to high school education. We did a comparative analysis of participants with and without GA looking at their attitudes and beliefs around technology and found that educated individuals experiencing GA consistently reported greater technological confidence, accessibility, and fewer financial barriers compared to their counterparts without anxiety. This suggests that factors beyond what we assessed may underlie GA, warranting further investigation into psychological and contextual influences.

Conclusion

Digital inequity among racialized seniors is shaped by intersecting socio-demographic and psychological factors. Digital inclusion strategies need to address infrastructure accessibility and affordability, basic digital literacy, and psychological barriers. Targeted outreach efforts that are gender-responsive and culturally sensitive will be required to ensure equitable access, meaningful participation in the digital world, and improved quality of life.