

# An Intergenerational Approach to Digital Technology and Robot Use amongst Seniors

PRESENTED BY: NEHA GULIA, SACHINDEEP SINGH AND NAVJOT KAUR  
RESEARCH ASSISTANTS, RESEARCH CENTRE, CANADORE COLLEGE.

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**CANADORE**  
RESEARCH CENTRE

## BACKGROUND

Previous research highlighted the importance of technology in improving seniors' quality of life. Fisk et al. (2009) emphasized the need for technology designed for older adults to enhance their daily lives. Additionally, Lee and Kim (2018) noted that intergenerational programs can help bridge the digital divide by fostering mutual learning and connection between younger and older generations. Broadbent (2017) further supports the integration of technology by demonstrating that social robots can boost social interaction, and cognitive engagement, enhancing emotional well-being effectively addressing issues such as loneliness and digital exclusion. Building on these findings, the current study aims to evaluate the impact of social robots in improving intergenerational connections, fostering social interactions, and enhancing technological skills among older adults.

## METHODOLOGY

The study was conducted over eight weeks, engaging five older adult participants and four student facilitators at each location. A social robot specifically designed for recreational and social activities was used. Participants completed structured training sessions involving hands-on learning, demonstrations, and interactive games. Data was collected through surveys containing open-ended questions, allowing for in-depth qualitative analysis.



## PROPOSAL FOR FUTURE RESEARCH

- Offering longer training sessions to provide participants with additional hands-on experience.
- Implementing a mentorship model where experienced senior champions support new learners.
- Exploring the long-term effects of intergenerational collaboration on social well-being and technological literacy.
- Assessing the effectiveness of remote or hybrid training programs for wider community reach.
- Investigating the potential for social robots to support other activities beyond recreation, such as health monitoring and companionship.

## RESEARCH OBJECTIVES

- To provide comprehensive training for older adults on using social companion robots.
- To explore the impact of intergenerational collaboration on seniors' technological confidence and social well-being.
- To assess participant experiences and identify areas for improvement in robot training programs.

## REFERENCES

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## FEATURES OF ROBOTS (MORK & MIKO)



- Plays music and facilitates movement
- Offers brain games
- Engages in conversations
- Provides access to audio books
- Enables video calls and camera functionality
- Sets reminders
- Allows voice tone adjustments and interactive conversations via a robot handler
- Downloads new applications by linking to a laptop through dedicated software



## RESULTS

- Older adults reported increased confidence in using social robots for recreational purposes.
- Intergenerational interactions facilitated meaningful social connections and mutual learning.
- Participants highlighted the need for extended training sessions to build greater comfort with the technology.
- Technical difficulties and troubleshooting challenges were common, emphasizing the need for improved technical support.
- Overall, the experience positively impacted participants' views on technology and fostered a greater sense of community.

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