

Understanding Technology Acceptance and Ease of Use among Elderly in India

Sharmili Mitra^{1*} and Manish Kumar Asthana^{1,2}

¹Department of Humanities & Social Sciences, Indian Institute of Technology Roorkee, Roorkee-247667, INDIA ²Department of Design, Indian Institute of Technology Roorkee, Roorkee-247667, INDIA



INTRODUCTION

- Information Communication Technology (ICT) may enhance social connectedness through social media platforms and support the elderly employing online shopping, banking, and other utility-based applications.
- However, in India, the elderly face certain challenges while using digital media applications, which <u>reduces ICT usability and accessibility</u> among the aging population.
- Along with **physical limitations** like decline in vision, hearing and motor coordination, **cognitive deficits** in visual search ability, attention, working memory, information processing speed, problem-solving, language processing, etc. are associated with difficulty in using ICT.
- To alleviate these limitations, the digital platforms must cater to the <u>specific needs</u>, <u>deteriorating physical and cognitive abilities</u>, <u>psychological and social barriers</u> that hinder the adoption of technology among older users.
- Further, <u>demographic factors like age,</u> <u>education, and socio-cultural background</u> must be considered while designing platforms.
- The current study investigates the <u>needs</u>, <u>attitudes</u>, <u>and perceived limitations of the existing platforms from the perspective of the elderly in the Indian context</u>.

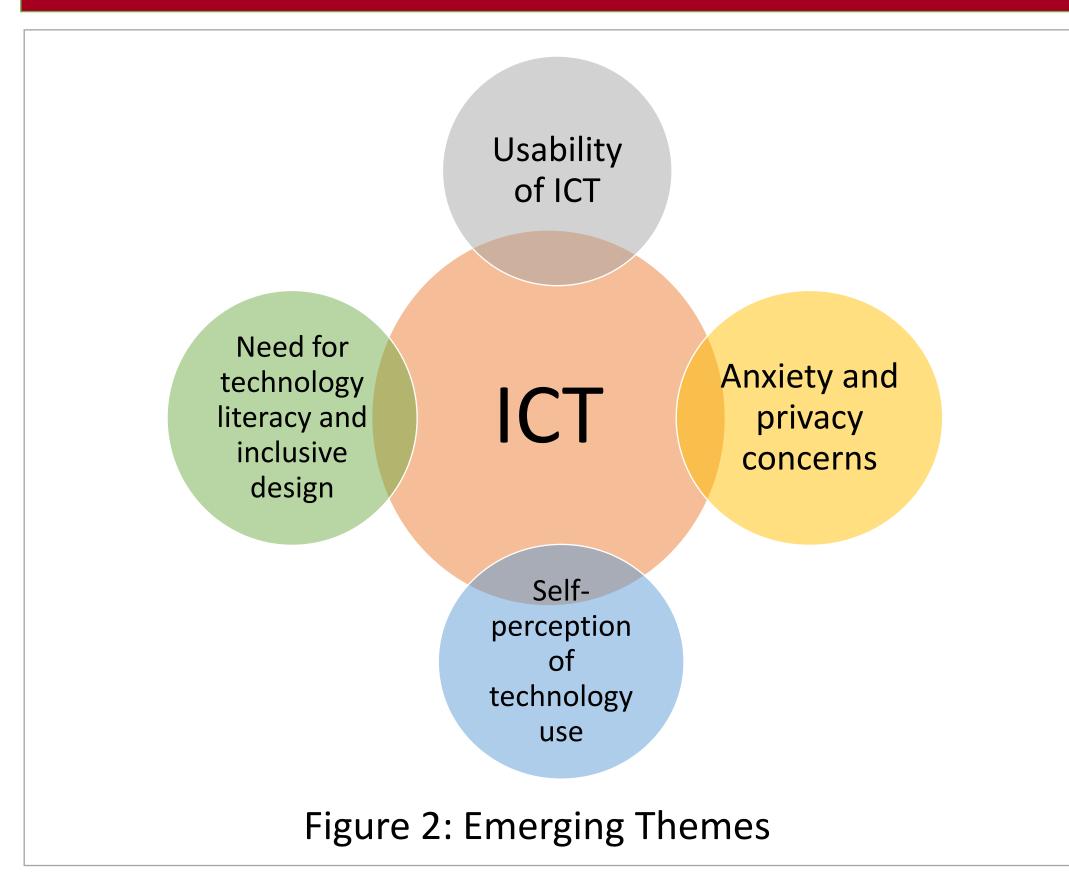
METHOD

<u>Twenty</u> healthy participants belonging to the age group of 60 to 75 years [12 females (M= 65.1, SD= 3.8); 8 males (M= 68.8, SD= 1.8)] were recruited using <u>purposive sampling</u>. A short survey on social media applications was conducted using Google Forms. Semi-structured interviews were conducted based on an interview guide. The qualitative data was analysed using the following steps:



Figure 1: Steps of Qualitative Analysis

RESULTS



DISCUSSION

- The theme highlights the '<u>Usability of ICT</u>' in terms of communication, entertainment and professional purposes among the elderly.
- ➤ 'Anxiety and privacy concerns' reflects that limited ICT literacy, effects of digital-divide, harassment, and security concerns impact technology adoption among the aging population.
- ➤ 'Self-perception of technology use' portrays that motivation, interest, confidence, perseverance, and adaptability influence technology acceptance. Individuals with higher self-efficacy and favorable attitudes are more accepting of ICT.
- Need for technology literacy and inclusive design's suggests the requirement of modifications in the user interface to alleviate challenges due to physical and cognitive deficits, especially in India.

CONCLUSION

- The emerging themes highlighted that several <u>bio-psycho-social factors</u> are instrumental in the adoption of technology among seniors in <u>developing countries</u> like India.
- Awareness of these factors may help design inclusive digital platforms and create awareness among the elderly, enhancing their acceptance of technology, promoting healthy aging, and improved quality of life.

Acknowledgement: The authors acknowledge Anshita Singh for her contribution in data collection, and the elderly participants for their valued time and cooperation.

Contact: s_mitra@hs.iitr.ac.in