



Bridging Kerala's Digital Divide: Elderly Inclusion and Overcoming Digital Disengagement

Abin Abraham ^{1*}, Arun K Saseendran ²

¹ Research Scholar, Mahatma Gandhi University, Kottayam, Kerala, India

² Assistant Professor, S N Arts and Science College, Kumarakom, Kerala, India

* Corresponding Author: **Abin Abraham**

Article Info

ISSN (online): 2582-7138

Volume: 05

Issue: 06

Novembar-December 2024

Received: 07-09-2024

Accepted: 09-10-2024

Page No: 68-72

Abstract

In Kerala, significant portions of the elderly population remain digitally disengaged, limiting their access to essential services, and exacerbating social isolation. This study explores the barriers to digital inclusion among Kerala's elderly through qualitative case studies, highlighting factors such as lack of digital literacy, limited access to user-friendly devices, and security concerns. The analysis reveals the impact of digital disengagement on the social, economic, and mental well-being of the elderly. It proposes targeted interventions, including tailored digital literacy programs, simplified technologies, intergenerational learning, and enhanced security education, to bridge the digital divide and enhance the quality of life for Kerala's elderly.

Keywords: Elderly, Digital technology, Digital inclusion, Digital disengagement

Introduction

In an increasingly digital world, access to and proficiency in digital technologies (Bajones *et al.*, 2020) ^[1] have become essential for social inclusion, access to services, and overall quality of life (Nymberg *et al.*, 2019) ^[13]. However, significant portions of the elderly population, particularly in regions like Kerala, remain digitally disengaged. This digital divide can exacerbate feelings of isolation, limit access to critical services such as healthcare (Turner, 2012) ^[16], (Lindberg, Bhatt, & Ferm, 2021) ^[12] and banking, and prevent elderly individuals from participating fully in contemporary social and economic activities (Seifert & Schelling, 2018) ^[15]. Kerala, often hailed as a model for social development in India, has made significant strides in health and education (Wangberg *et al.*, 2007) ^[18]. Despite these advancements, a considerable gap persists in digital literacy and engagement among its elderly population (Weaver, Zorn, & Richardson, 2010) ^[19]. This study aims to explore the various dimensions of this issue through qualitative case studies, shedding light on the challenges faced by the elderly (Haase *et al.*, 2021) ^[10] in adopting digital technologies (Kamin, Lang, & Beyer, 2017) ^[11] and the potential strategies to foster greater digital inclusion.

Digital disengagement among the elderly in Kerala represents a multifaceted problem with significant implications for their social, economic (Bradshaw, 2011) ^[6], and mental well-being (Chung *et al.*, 2017) ^[9], (Beuscher *et al.*, 2017) ^[5]. While younger generations rapidly adapt to technological advancements, many elderly individuals find themselves excluded from the digital realm (Barg-Walkow *et al.*, 2017) ^[3]. This exclusion stems from a combination of factors, including lack of digital literacy, limited access to user-friendly devices, apprehensions about online security, and a preference for traditional methods of communication and transaction.

Despite the evident benefits of digital technologies in enhancing connectivity, healthcare management, and financial transactions, many elderly individuals remain hesitant or unable to integrate these tools into their daily lives (Olphert, Damodaran, & May, 2005) ^[14]. This reluctance not only limits their access to critical services but also exacerbates social isolation (Ballantyne *et al.*, 2010) ^[2], particularly in a region where migration of younger family members for employment is common (Uei, Tsai, & Yang, 2013) ^[17]. Addressing this problem requires a nuanced understanding of the barriers faced by the elderly and the development of targeted interventions that can bridge the digital divide (Callari, Ciairano, & Re, 2012) ^[7]. By examining specific cases of elderly individuals in Kerala, this study seeks to identify the root causes of digital disengagement and propose effective strategies to promote digital inclusion (Berridge, Chan, & Choi, 2019) ^[4].

Objectives

1. To identify the key barriers to digital engagement among the elderly in Kerala.
2. To assess the impact of digital disengagement on the social, economic, and mental well-being of the elderly.
3. To evaluate the effectiveness of existing interventions and propose new strategies to enhance digital literacy and engagement among the elderly.

Sample Analysis: Methodology

The methodological approach to the case studies on elderly digital disengagement in Kerala involves a qualitative research design, utilizing in-depth, individual case studies to explore the multifaceted nature of this issue. Each case study was selected based on specific criteria, including age, geographical location, and varying degrees of digital engagement. This purposive sampling ensures a diverse representation of experiences. Data collection involved semi-structured interviews with the elderly participants, allowing for rich, detailed narratives. Observational methods complemented these interviews, noting participants' interactions with digital devices and their everyday routines. This triangulation of data sources enhances the validity of the findings. Thematic analysis was employed to identify recurring patterns and themes across the case studies. Key themes such as traditional communication preferences, access to digital devices, social isolation, health monitoring, financial security concerns, and the impact of educational programs emerged from the data. Each case study provides a comprehensive account of individual experiences, contextual factors, and personal reflections. The analyses draw on theoretical frameworks related to digital literacy, gerontology, and social inclusion, offering insights into the barriers and facilitators of digital engagement among the elderly. Overall, this methodological approach ensures a holistic understanding of elderly digital disengagement, emphasizing the need for targeted interventions and support systems to enhance digital inclusion in Kerala.

Analysis of Cases

Below are six qualitative case studies and their analyses focusing on the theme of elderly and digital disengagement in Kerala?

Case Study 1: Traditional Communication Preferences

Background: Mr. Raman Nair, an 82-year-old retired school teacher, lives in a rural village in Kerala. Despite having children who live abroad and frequently use digital means to communicate, Mr. Nair prefers traditional methods such as letters and occasional phone calls.

Analysis: Mr. Nair's preference for traditional communication methods highlights a common issue of digital disengagement among the elderly. His comfort with non-digital methods suggests a lack of digital literacy and possible apprehension toward new technology. This case underscores the need for digital literacy programs that are tailored to the elderly, emphasizing the ease and benefits of digital communication.

Case Study 2: Limited Access to Digital Devices

Background: Mrs. Lakshmi, a 76-year-old widow, lives alone in a small town. She has limited access to digital devices, owning only a basic mobile phone. Her children, who live in a different state, bought her a smartphone, but she

finds it too complicated to use.

Analysis: Mrs. Lakshmi's situation illustrates the gap between ownership and effective use of digital devices. The complexity of modern smartphones can be intimidating for the elderly, resulting in disengagement. Simplified devices and user-friendly interfaces, along with dedicated training sessions, can help bridge this gap and enhance digital inclusion.

Case Study 3: Social Isolation and Mental Health

Background: Mr. Thomas, a 79-year-old man, has been experiencing social isolation after his wife's death. His grandchildren have introduced him to social media, but he finds it overwhelming and prefers face-to-face interactions.

Analysis: This case highlights how digital disengagement can exacerbate feelings of loneliness and social isolation. While social media can provide social interaction, the elderly might find it stressful. A balanced approach combining digital engagement with traditional social activities can help improve their mental well-being and reduce isolation.

Case Study 4: Health Monitoring and Digital Tools

Background: Mrs. Meera, an 85-year-old diabetic patient, was introduced to digital health monitoring tools by her physician. Despite initial resistance, she found it beneficial for tracking her health metrics.

Analysis: Mrs. Meera's positive outcome after adopting digital health tools shows that with proper guidance and support, elderly individuals can overcome their reluctance. This case emphasizes the role of healthcare professionals in promoting digital tools and the importance of personalized training to ensure effective use.

Case Study 5: Financial Transactions and Security Concerns

Background: Mr. Abdul, a 77-year-old retired banker, avoids online banking due to fears of fraud and security breaches. He relies on his son for managing digital transactions.

Analysis: Mr. Abdul's distrust of digital financial services reflects a broader concern about online security among the elderly. This case suggests the need for enhanced digital security education and robust fraud prevention measures. Financial institutions should provide secure, easy-to-understand platforms and customer support tailored to the elderly.

Case Study 6: Educational Programs and Community Support

Background: A local NGO in Kerala launched a digital literacy program targeting the elderly in a community center. Mr. Subramanian, a 70-year-old participant, learned to use basic digital tools and now assists his peers in the program.

Analysis: The success of Mr. Subramanian and the community program illustrates the effectiveness of community-based digital literacy initiatives. Such programs can empower the elderly, fostering a sense of community and support. The peer-learning model can be particularly effective, as elderly individuals might feel more comfortable learning from their contemporaries.

These case studies collectively highlight the diverse challenges and potential solutions regarding elderly digital disengagement in Kerala. Key themes include the importance of tailored digital literacy programs, the need for user-

friendly technology, the role of healthcare professionals, and the benefits of community support. Addressing these issues through targeted interventions can significantly improve digital inclusion and the overall quality of life for the elderly in Kerala.

Discussion

Objective 1: Identifying Key Barriers to Digital Engagement

The first objective aims to delve into the primary obstacles preventing elderly individuals in Kerala from engaging with digital technologies. This involves exploring various factors such as:

- **Digital Literacy:** Many elderly individuals have limited exposure to digital technologies, resulting in a lack of basic digital skills. This includes difficulties in navigating user interfaces, understanding online services, and troubleshooting common issues.
- **Access to Devices:** Limited access to user-friendly digital devices can be a significant barrier. Even when devices are available, their complexity often deters the elderly from using them effectively.
- **Fear of Security Breaches:** Concerns about online fraud and data security are prevalent among the elderly. These fears can discourage them from using online banking, e-commerce, and other digital services.
- **Cultural Preferences:** A strong preference for traditional methods of communication and transaction, such as face-to-face interactions, letters, and cash transactions, often persists among the elderly.

By identifying these barriers through qualitative interviews and observations, this study will provide a comprehensive understanding of the factors contributing to digital disengagement.

Objective 2: Assessing the Impact of Digital Disengagement

The second objective focuses on understanding the consequences of digital disengagement on the elderly's lives. Key areas of impact include:

- **Social Isolation:** Digital disengagement can exacerbate feelings of loneliness and isolation; particularly as younger family members increasingly use digital means for communication.
- **Access to Services:** Limited digital engagement restricts access to essential services, including telemedicine, online banking, and government services, which are increasingly moving online.
- **Mental Health:** The inability to engage with digital technologies can lead to frustration, a sense of inadequacy, and mental stress among the elderly. Conversely, successful digital engagement can provide mental stimulation and a sense of accomplishment.
- **Economic Participation:** Digital technologies offer numerous opportunities for economic participation, including online businesses, remote work, and access to financial markets. Digital disengagement excludes the elderly from these opportunities, potentially impacting their economic well-being.

Through in-depth case studies, this research will illustrate the real-life implications of digital disengagement, providing a human face to the statistics and highlighting the urgent need

for intervention.

Objective 3: Evaluating Interventions and Proposing New Strategies

The third objective evaluates existing initiatives aimed at promoting digital literacy and engagement among the elderly in Kerala. This includes community programs, digital literacy workshops, and efforts by NGOs and government agencies. The effectiveness of these interventions will be assessed based on:

- **Reach and Accessibility:** How widely are these programs accessible to the elderly, especially in rural areas?
- **Content and Delivery:** Are the training materials and methods tailored to the learning pace and preferences of elderly individuals?
- **Sustainability:** Do these programs offer ongoing support and resources to ensure continuous engagement and learning?

Based on this evaluation, the study will propose new strategies to enhance digital inclusion. These might include

- **Simplified Digital Interfaces:** Developing devices and applications with simplified interfaces specifically designed for the elderly.
- **Peer Learning Models:** Encouraging peer-to-peer learning within the elderly community, leveraging those who have successfully adopted digital technologies to teach others.
- **Intergenerational Programs:** Facilitating programs where younger volunteers help elderly individuals learn and navigate digital tools.
- **Security Education:** Providing targeted education on online security to alleviate fears and build confidence in using digital services.

Addressing digital disengagement among the elderly in Kerala requires a comprehensive, multi-faceted approach that considers the unique barriers faced by this demographic. Through detailed qualitative case studies and analyses, this research aims to uncover the root causes of digital disengagement, assess its impacts, and evaluate the effectiveness of current interventions. The insights gained will inform the development of targeted strategies to enhance digital literacy and engagement, ultimately improving the quality of life for the elderly in Kerala.

Suggestions

1. Implement Tailored Digital Literacy Programs

- **Description:** Design and implement digital literacy programs specifically tailored for the elderly. These programs should cover basic digital skills, including using smartphones, navigating the internet, and understanding online services.
- **Rationale:** Tailored programs can address the specific learning pace and preferences of the elderly, ensuring that they are comfortable and confident in using digital technologies. This approach can help overcome initial apprehensions and build foundational skills.

2. Develop User-Friendly Technology

- **Description:** Encourage tech companies to develop simplified digital devices and applications that cater to

the needs of the elderly. Features such as larger icons, voice commands, and straightforward navigation can make technology more accessible.

- **Rationale:** User-friendly technology reduces the intimidation factor associated with complex devices and interfaces, making it easier for elderly individuals to adopt and use digital tools effectively. This can lead to greater digital engagement and independence.
3. **Promote Intergenerational Learning**
 - **Description:** Establish intergenerational learning programs where younger family members or volunteers assist elderly individuals in learning and using digital technologies. This can be facilitated through community centers, schools, or online platforms.
 - **Rationale:** Intergenerational learning fosters a supportive and collaborative environment. Younger individuals can provide the necessary technical support, while the elderly benefit from personalized guidance and encouragement. This also strengthens family and community bonds.
 4. **Enhance Online Security Education**
 - **Description:** Provide targeted education on online security and privacy tailored to the elderly. This should include information on recognizing phishing scams, creating strong passwords, and safely conducting online transactions.
 - **Rationale:** Addressing security concerns is crucial for building trust in digital technologies. By equipping the elderly with knowledge and tools to protect themselves online, they will feel more confident in using digital services, reducing their fear of fraud and security breaches.
 5. **Facilitate Community-Based Support Networks**
 - **Description:** Create community-based support networks that offer continuous assistance and resources for elderly individuals navigating digital technologies. This can include setting up help desks, regular workshops, and peer support groups.
 - **Rationale:** Ongoing support is essential for maintaining digital engagement. Community-based networks provide a reliable resource for elderly individuals to seek help, share experiences, and learn from one another. This sense of community can enhance their digital literacy and overall well-being.

Conclusion

Digital disengagement among the elderly in Kerala is a complex issue with significant social, economic, and psychological implications. The elderly population's reluctance to embrace digital technologies stems from various barriers, including lack of digital literacy, limited access to user-friendly devices, concerns about online security, and a preference for traditional methods of communication. Addressing these challenges requires a comprehensive and multi-faceted approach. The proposed suggestions aim to bridge the digital divide by focusing on tailored digital literacy programs, the development of user-friendly technology, intergenerational learning, enhanced online security education, and community-based support networks. Implementing these strategies can empower the elderly to become more digitally literate, thereby improving

their access to essential services, reducing social isolation, and enhancing their overall quality of life. By fostering an inclusive digital environment, Kerala can ensure that its elderly population remains connected, informed, and engaged in an increasingly digital world. This not only benefits the elderly individuals themselves but also enriches the broader community by promoting intergenerational solidarity and leveraging the full potential of all its members. The path to digital inclusion for the elderly is a journey that requires collective effort, compassion, and innovative solutions tailored to their unique needs and circumstances.

References

1. Bajones M, Fischinger D, Weiss A, De La Puente P, Wolf D, Vincze M, *et al.* Results of field trials with a mobile service robot for older adults in 16 private households. *Journal of Human-Robot Interaction.* 2020;9(2):1–27. <https://doi.org/10.1145/3368554>
2. Ballantyne A, Trenwith L, Zubrinich S, Corlis M. 'I feel less lonely': What older people say about participating in a social networking website. *Quality in Ageing and Older Adults.* 2010;11(3):25–35. <https://doi.org/10.5042/qiao.2010.0526>
3. Barg-Walkow LH, Harrington CN, Mitzner TL, Hartley JQ, Rogers WA. Understanding older adults' perceptions of and attitudes towards exergames. *Gerontechnology.* 2017;16(2):81–90. <https://doi.org/10.4017/gt.2017.16.2.003.00>
4. Berridge C, Chan KT, Choi Y. Sensor-based passive remote monitoring and discordant values: Qualitative study of the experiences of low-income immigrant elders in the United States. *JMIR mHealth uHealth.* 2019;7(3). <https://doi.org/10.2196/11516>
5. Beuscher LM, Fan J, Sarkar N, Dietrich MS, Newhouse PA, Miller KF, *et al.* Socially assistive robots: Measuring older adults' perceptions. *Journal of Gerontological Nursing.* 2017;43(12):35–43. <https://doi.org/10.3928/00989134-20170707-04>
6. Bradshaw HM. Digital inclusion: Economic and social benefits for individuals and wider society. Social Research Report No. 26/2011 produced for the Welsh Government. Retrieved from <http://wales.gov.uk/topics/housingandcommunity/research/community/econsocial/?lang=en>
7. Callari TC, Ciairano S, Re A. Elderly-technology interaction: Accessibility and acceptability of technological devices promoting motor and cognitive training. *Work.* 2012;41(Suppl 1):362–369. <https://doi.org/10.3233/WOR-2012-0183-362>
8. Chattaraman V, Kwon W, Gilbert JE, Ross K. Should AI-based, conversational digital assistants employ social- or task-oriented interaction style? A task-competency and reciprocity perspective for older adults. *Computers in Human Behavior.* 2019;90:315–330. <https://doi.org/10.1016/j.chb.2018.08.048>
9. Chung J, Thompson HJ, Joe J, Hall A, Demiris G. Examining Korean and Korean American older adults' perceived acceptability of home-based monitoring technologies in the context of culture. *Informatics for Health and Social Care.* 2017;42(1):61–76. <https://doi.org/10.3109/17538157.2016.1160244>
10. Haase KR, Cosco T, Kervin L, Riadi I, O'Connell ME. Older adults' experiences with using technology for socialization during the COVID-19 pandemic: Cross-

- sectional survey study. *JMIR Aging*. 2021;4(2).
<https://doi.org/10.2196/28010>
11. Kamin ST, Lang FR, Beyer A. Subjective technology adaptivity predicts technology use in old age. *Gerontology*. 2017;63(4):385–92.
<https://doi.org/10.1159/000471802>
 12. Lindberg J, Bhatt R, Ferm A. Older people and rural eHealth: Perceptions of caring relations and their effects on engagement in digital primary health care. *Scandinavian Journal of Caring Sciences*. 2021;35(4):1322–33. <https://doi.org/10.1111/scs.12953>
 13. Nymberg VM, Bolmsjö BB, Wolff M, Calling S, Gerward S, Sandberg M. 'Having to learn this so late in our lives...' Swedish elderly patients' beliefs, experiences, attitudes and expectations of e-health in primary health care. *Scandinavian Journal of Primary Health Care*. 2019;37(1):41–52.
<https://doi.org/10.1080/02813432.2019.1570612>
 14. Olphert CW, Damodaran L, May A. Towards digital inclusion – Engaging older people in the digital world. In: *Proceedings of the Conference for Accessible Design in the Digital World*; Dundee, August 2005. Retrieved from
http://www.bcs.org/upload/pdf/ewic_ad05_s7paper1.pdf
 15. Seifert A, Schelling HR. Seniors online: Attitudes toward the Internet and coping with everyday life. *Journal of Applied Gerontology*. 2018;37(1):99–109.
<https://doi.org/10.1177/0733464816669805>
 16. Turner K. Telehealth and telecare for older people. *Scottish Policy Now*. 2012 Mar;(2). Retrieved from
<http://www.scottishpolicynow.co.uk/article/telehealth-and-telecare-for-older-people>
 17. Uei S, Tsai C, Yang M. Telecare service use among Taiwanese aged 60 and over: Satisfaction, trust, and continued use intention. *Social Behavior and Personality*. 2013;41(8):1309–18.
<https://doi.org/10.2224/sbp.2013.41.8.1309>
 18. Wangberg SC, Andreassen HK, Prokosch HU, Vagos Santana SM, Sørensen T, Chronaki CE. Relations between Internet use, socio-economic status (SES), social support and subjective health. *Health Promotion International*. 2007;23(1):70–7.
<https://doi.org/10.1093/heapro/dam036>
 19. Weaver CK, Zorn T, Richardson M. Goods not wanted: Older people's narratives of computer use rejection. *Information, Communication & Society*. 2010;13(5):696–721.
<https://doi.org/10.1080/13691180903410535>