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## "TRANSFORMING THE LANDSCAPE OF ELDERLY WELL-BEING IN INDIA: HARNESSING CUTTING-EDGE TECHNOLOGY TO EMPOWER SENIORS AND ILLUMINATE THEIR PATH TO A RADIANT FUTURE"

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### ABSTRACT

India needs to increase aged care and welfare due to its aging population. Assistive technology is essential for removing barriers and assisting older people with daily tasks. However, user awareness is a major obstacle. Providing suitable living spaces, creating cozy attire, maintaining active networks, and involving elders in neighborhood activities are crucial. Opportunities for jobs and recreation also help maintain physical and mental fitness. Technology interventions in design, networking, recreation, and entertainment are essential. Public policy support, capacity building, and awareness campaigns are needed to effectively utilize technology in aged care. The goal of the paper is to enhance the protection and well-being of India's aging population by examining the difficulties that older people encounter with regard to social isolation, healthcare, financial stability, and access to social services. The study examines how modern technology is changing the quality of life for seniors, with an emphasis on India. The research technique comprises a thorough examination of current technical advancements

and their applications in elder care, as well as an assessment of the unique difficulties and limitations in the Indian setting. The findings highlight the immense potential of technology in addressing the complex needs of India's aging population, such as facilitating remote healthcare access, mitigating social isolation through online communities, enhancing financial inclusion, and ensuring legal protection through digital resources. The paper advocates for the proactive use of technology and policy initiatives to protect the rights of elderly citizens, emphasizing the need for public policy support, capacity building, and awareness campaigns to improve the quality of life for the elderly population in India.

**Keyword: Elderly Welfare, Senior citizen's Rights, Elderly Care Technology, Health Care, digital literacy**

*Older persons are invaluable sources of knowledge and experience and have much to contribute towards peace, sustainable development, and protecting our planet.*

*UN Secretary-General António Guterres*

## INTRODUCTION

Old age is an inevitable stage in life, and India, a country known for its rich cultural heritage and diverse population, has experienced a decline in respect and dignity for senior citizens. This trend is particularly prevalent in countries like India, where elders are often seen as burdens rather than valuable assets. India's tradition of honoring and revering elders is deeply rooted in the country's culture, where elders are viewed as living gods with wisdom and lessons. However, contemporary lifestyles have shifted this perception, viewing senior citizens as a curse rather than a cherished asset. Elders often find themselves among the most vulnerable members of society, reliant on their families for basic necessities and support<sup>1</sup>. The condition of the elderly in India is worsening as societal patterns change, with mistreatment and neglect of the elderly being a prevalent social issue globally<sup>2</sup>. In the 2011 census, India's population aged 60 and above accounted for 8%, and this proportion is expected to increase to 12.5% and 20% by 2026 and 2050, respectively<sup>3</sup>. This demographic shift raises concerns about the safety and security of senior citizens in India. Despite India's strong tradition of touching the feet of elders as a mark of respect and holding a special place for them in its customs, culture, and scriptures, it lacks comprehensive laws regarding the rights of senior citizens<sup>4</sup>. As the largest population of young people globally ages, India may encounter the challenge of accommodating the largest number of elderly people in the world. To manage this demographic shift successfully, India needs to develop robust policies and statutes that enhance the quality of life

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<sup>1</sup> Vulnerability of Senior Citizens in India," National Human Rights Commission, India, 2021.

<sup>2</sup> Global Report on Ageism," World Health Organization, 2022, United Nations, "World Report on Ageing and Development, 2015

<sup>3</sup> Population Projections for India and States, 2001-2061," Registrar General of India, 2022

<sup>4</sup> Rights of Senior Citizens in India," National Commission for Senior Citizens, India, 2022

for its senior citizens, reaffirming their revered status in the country's traditions. In the 21st century, population aging has become a significant demographic concern in India, with the rapid advancement of technology and the digital world posing challenges for the elderly. They often feel isolated and distracted by the ever-increasing emphasis on digital literacy and the shift towards online transactions. Digital literacy can offer numerous benefits to the elderly, enhancing their overall quality of life.

### **Defining and Protecting Senior Citizens in India**

The term "senior citizen" is commonly used in international documents and national legislations to refer to the demographic commonly known as senior citizens. In India, the legal framework specifically uses the term "Senior Citizen" under section 2(h) of the Maintenance and Welfare of Parents and Senior Citizens Act, 2007<sup>5</sup>. This Act defines a senior citizen as any person holding Indian citizenship who has reached the age of 60 years or above<sup>6</sup>. However, the concept of 'elderly' lacks a standardized legal definition, and there is no universally accepted age at which an individual is considered old<sup>7</sup>. The Act, through section 5(1), establishes the entitlement of senior citizens, who are also parents, to receive maintenance<sup>8</sup>. The definition of "parent" encompasses biological, adoptive, stepfathers, or stepmothers, regardless of whether the father or mother qualifies as a senior citizen<sup>9</sup>. The legislation extends protection and support not only to senior citizens but also their children who may be in a position to provide maintenance<sup>10</sup>. The World Health Organization (WHO) recognizes the critical issue of elder abuse, defining it as a single or repeated act or lack of appropriate action occurring within any relationship where there is an expectation of trust that causes harm or distress to an older person<sup>11</sup>. This global perspective emphasizes the importance of safeguarding senior citizens against abuse and neglect, aligning with the principles enshrined in the Maintenance and Welfare of Parents and Senior Citizens Act<sup>12</sup>.

### **constitutional and Legal Safeguards for the Elderly in India**

The Indian Constitution provides provisions to safeguard the rights of the elderly, acknowledging the challenges they face in their 60s, including housing, taxes, healthcare, and psychological support<sup>13</sup>. Article 38 of the constitution states that the state must secure a social order that promotes the welfare of the people, including

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<sup>5</sup> Shakuntala Devi v. Sukhdev Kaur (2006) 1 SCC 372

<sup>6</sup> The United Nations Principles for Older Persons (1991), The Madrid International Plan of Action on Ageing (2002), The Older Americans Act of 1965 (United States), United Nations Convention on the Rights of Persons with Disabilities (CRPD)

<sup>7</sup> World Health Organization, Ageing and health, Fact sheet, (2022), P. Sudhakar v. Govt. of AP, [2003] 4 SCC 692.

<sup>8</sup> Maintenance and Welfare of Parents and Senior Citizens Act, 2007, No. 56 of 2007 (India), § 5(1), No. 56, Acts of Parliament, 2007 (India). G.D.R. vs. State of Karnataka, [2014] 6 SCC 309.

<sup>9</sup> Ibid., § 2(g), B.S. Joshi v. State of Maharashtra, [2005] 11 SCC 642.

<sup>10</sup> Ibid., § 4., Shakti Velu v. Sushila, [2002] 4 SCC 193.

<sup>11</sup> World Health Organization (WHO). The Global Health and Aging report 2021. Geneva: WHO; 2021, p. 38.

<sup>12</sup> No. 56 of 2007, Anr. Rajendra Singh v. State of U.P., (2010) 2 SCC 570.

<sup>13</sup> Art 38

minimizing income inequalities and eliminating inequalities in status, facilities, and opportunities among individuals and groups of people residing in different areas or engaged in different vocations. The aim is to ensure justice, social, economic, and political institutions inform all national life institutions<sup>14</sup>. The Constitution guarantees the right to work, education, and public assistance in certain cases, including unemployment, old age, sickness, disablement, and undeserved want. It also provides for just and humane conditions of work and maternity relief. The State is tasked with raising the level of nutrition and the standard of living, as well as improving public health. It is particularly committed to prohibiting the consumption of intoxicating drinks and drugs, except for medicinal purposes. These provisions ensure the right to a peaceful, dignified life for the elderly<sup>15</sup>, and they provide social, economic, and political support from the government as their legal right. However, these articles fall under the Directive Principles, meaning they are not enforceable in courts. The Criminal Procedure Code 1973(Cr.P.C.) provides personal laws and policies focusing on the rights of elderly people<sup>16</sup>, including the Hindu Adoption and Maintenance Act, 1956. This Act empowers elderly individuals to claim maintenance from their children<sup>17</sup>, but only for Hindus. Section 20 of the Act outlines the responsibility of a person to maintain their elderly parents if they cannot do so themselves<sup>18</sup>. Section 23 of the Act outlines the amount of maintenance to be paid to the parents, with the court having the discretion to decide or alter the amount if it deemed insufficient for their survival<sup>19</sup>. Modern Hindu laws also state that it is the responsibility of both the son and daughter to maintain the parents, and maintenance can be claimed by both natural and adoptive parents. However, step-parents with their own children cannot claim maintenance under this Act. Muslim personal laws allow Muslims to maintain their parents, even under strained circumstances, if they are poor or infirm. A son is also bound to maintain his father if he is earning nothing.

Indian constitution emphasizes the promotion of the educational and economic interests of the weaker sections, protecting them from social injustice and exploitation<sup>20</sup>. In Hindu law, the obligation of sons to maintain their aged parents is recognized even in early texts, and this obligation is enforceable by the sovereign or the state. The first personal law statute in India, the Hindu Adoption and Maintenance Act, 1956, imposes an obligation on children to maintain their parents. In Muslim law, children have a duty to maintain their aged parents even under Muslim law. Mulla states that children in easy circumstances are bound to maintain their poor parents, while a son in strained circumstances is bound to maintain his mother if the mother is poor, even if she may not be infirm. Tyabji states that parents and grandparents in indigent circumstances are entitled to maintenance from their

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<sup>14</sup> Paschim Banga Khet Mazdoor Samity v. State of West Bengal [(1978) 1 SCC 347]

<sup>15</sup> Art 21, Olga Tellis v. Bombay Municipal Corporation [(1985) 3 SCC 545],

<sup>16</sup> Sec 125,

<sup>17</sup> Art 21, Savitri Devi v. Prem Narain [(2005) 4 SCC 658]

<sup>18</sup> Hindu Adoption and Maintenance Act, 1956

<sup>19</sup> Hindu Adoption and Maintenance Act, 1956

<sup>20</sup> Constitution of India, Article 46

children and grandchildren who have the means, even if they can earn their livelihood<sup>21</sup>. Christian and Parsi law does not have personal laws providing for maintenance for parents, and parents who wish to seek maintenance must apply under provisions of the Criminal Procedure Code<sup>22</sup>. The most recent Act is the MWPSA Act 2007 (Maintenance and Welfare of Parents and Senior Citizens). The Act allows parents and grandparents to demand maintenance<sup>23</sup> up to 10,000 from their own income and mandates the government to open and manage old age homes for 150 elderly people. Section 24 of the Act mentions punishment of Rs. 5000/ with imprisonment of 3 months for abandoning parents or elderly persons. The Uttarakhand high court has established mandatory directions for senior citizens to live with dignity, including the establishment and maintenance of old age homes. The state is obligated to protect their life, liberty, and property, including their dignity and decency<sup>24</sup>. The court has also held over immovable property and the eviction of abusive children<sup>25</sup>. The elderly have the same civil rights as other adults under U.S. and Texas laws, except where lawfully restricted<sup>26</sup>. They also have the right to exercise those rights free of interference, coercion, discrimination, and reprisal. They have the right to be treated with dignity and respect, regardless of race, religion, nationality, sex, age, disability, marital status, or source of payment. If protection is required, the elderly person has the right to designate a guardian or representative to ensure quality care over their affairs.

The elderly person has the right to manage their personal financial affairs, either independently or with the authorization of another person. They can choose the least restrictive method for managing their money<sup>27</sup>. In situations where a nursing home, family member, or guardian has been granted permission to manage a person's money, that person still has the right to decide how their money will be managed and to receive a full financial accounting<sup>28</sup>. An elderly person is entitled to access their own personal and clinical records, which are confidential and may not be released without permission, except to another person providing services at the time the elderly individual is transferred or if required by another law<sup>29</sup>. They have the right to information and choice regarding

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<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>23</sup> Section 14 (1)

<sup>24</sup> Uttarakhand High Court, Amarnath Pandey v. State of Uttarakhand, W.P. (C) No. 1994 of 2015 (Decided on 07-07-2015), Amarnath Tiwari v. State of Uttarakhand (2017), Sushila Devi v. State of Uttarakhand, 2017 U.K.H.C. 97

<sup>25</sup> Ibid.

<sup>26</sup> Older Americans Act of 1965, 42 U.S.C. § 3001 et seq.; Texas Government Code, Chapter 418

<sup>27</sup> National Human Rights Commission, India, "Human Rights of Elderly Persons: Law, Policies and Implementation: A Study with Special Reference to Kerala Project Report N" (2019), p. 15, Sarla Mudgal v. Union of India and others, AIR 1995 SC 1531

<sup>28</sup> Maintenance and Welfare of Parents and Senior Citizens Act, 2007, Sec. 23(2).

<sup>29</sup> Medical Records and Health Information Confidentiality and Security Guidelines, 2012, Sec. 3(1), Right to Information Act, 2005, Medical Council of India (Professional Conduct, Etiquette and Ethics) Regulations, 2002

medical conditions and care, including being fully informed by their service provider, choosing and retaining a personal physician, participating in an individual plan of care, and refusing medical treatment after the service provider advises of the possible consequences of refusing treatment<sup>30</sup>. An elderly person may keep and use their personal possessions, including clothing and furnishings, as space permits, but the number of personal possessions may be limited for the health and safety of other people<sup>31</sup>. They may refuse to perform services for their service provider<sup>32</sup>. By 30 days from when the elderly person is admitted for service, a service provider must inform the person about their entitlement to benefits under Medicare or Medicaid and which items and services are covered by these benefits<sup>33</sup>. Landmark judgments have directly helped uplift the vulnerable position of deprived senior citizens, such as the right to shelter, free legal aid, speedy trial, and human treatment<sup>34</sup>. The Apex court has held that the state is bound to protect the life and liberty of every human being, whether they are citizens or non-citizens<sup>35</sup>. Article 41, part IV of the Constitution outlines the Directive Principles of State Policy, which states that the state shall make effective provision for securing the right to work, education, and public assistance in cases of unemployment, old age, sickness, disablement, and other cases of undeserved want within its economic capacity and development<sup>36</sup>.

### **International Framework for Human Rights and Ageing**

Human rights are universal and extend until the end of life. The Universal Declaration of Human Rights (UDHR) was adopted in 1948, establishing a core idea of human rights<sup>37</sup>. Other international documents include the International Covenant on Civil and Political Rights (ICCPR) and International Covenant on Economic Social and Cultural Rights (ICESCR)<sup>38</sup>. In 1979, an international treaty on women's protection from discrimination was adopted<sup>39</sup>. The first international document on ageing was the Vienna International Plan of Action on Ageing in

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<sup>30</sup> Rights of Patients Bill, 2017, Sec. 14, Aruna Roy v. Union of India, AIR 2002 SC 2262

<sup>31</sup> National Policy for Older Persons, 1999, Sec. 11(ii), Parmanand Katara v. Union of India, AIR 2018 SC 2135

<sup>32</sup> Rights of Persons with Disabilities Act, 2016, Sec. 20(1), M. P. Sharma v. Satish Sharma, AIR 2016 SC 2327

<sup>33</sup> Older Persons (Maintenance and Welfare) Rules, 2009, Rule 10, State of Punjab v. Surjit Singh, AIR 2015 SC 2626, N.K. Bagrodia v. Union of India, AIR 2012 SC 2254

<sup>34</sup> Ashwani Kumar v. Union of India, (2017) 8 SCC 1.

<sup>35</sup> Francis Coralie Mullin v. Administrator, Union Territory of Delhi, (1981) 1 SCC 608.

<sup>36</sup> Constitution of India, Art. 41.

<sup>37</sup> United Nations, 217 A (III), art. 3.

<sup>38</sup> 16 December 1966, United Nations, 999 U.N.T.S. 171, art. 6; International Covenant on Economic, Social and Cultural Rights, 16 December 1966, United Nations, 993 U.N.T.S. 3, art. 9.

<sup>39</sup> Convention on the Elimination of All Forms of Discrimination against Women, 18 December 1979, United Nations, 1249 U.N.T.S. 13, art. 1.

1982, focusing on social welfare, income security, family, and health<sup>40</sup>. The United Nations Principles on Older Persons were formulated in 1991, covering guidelines on independence, dignity, and care for older people<sup>41</sup>. The Madrid International Plan of Action on Ageing (MIPAA) was adopted in 2002, integrating social and economic development with the rights of older people<sup>42</sup>. The Convention on the Rights of the Person with Disabilities<sup>43</sup> (CRPD) was adopted in 2006, specifically dealing with elderly women with disabilities. In 2018, the United Nations International Day for Older Persons (UNIDOP) reaffirmed its commitment towards the Fundamental Freedoms and Human Rights of the Older People, asserting that growing old does not diminish the right to live life with dignity.

### **Addressing Elderly Rights in India: A Multifaceted Challenge**

India is experiencing a significant demographic shift, with a projected elderly population of one of the largest in the world by 2050. This has led to social, economic, and healthcare challenges, including social isolation<sup>44</sup>, elder abuse, and inadequate healthcare access. Elderly individuals often face loneliness and mental health issues due to evolving family structures and urbanization. Access to healthcare, particularly in rural areas, is critical, requiring affordable services and specialized medical facilities. The rise of elder abuse necessitates international collaboration to raise awareness and protect elderly victims. There is a lack of quality eldercare services and facilities tailored to the needs of the elderly, highlighting the importance of enforcing elder rights. Awareness campaigns, education, and advocacy are needed to address these issues. However, the legal framework for protecting elderly rights is still evolving and often inadequate. Inadequate healthcare and palliative care also present significant issues. To safeguard the rights of the elderly and foster a just society, India needs a coordinated effort from the government, legislature, judiciary, and society, focusing on policy implementation, resource allocation, specialized services, timely legislation, healthcare access improvements, technological advancement and innovation.

### **Elder Abuse and Violation of Human Rights in India**

A study by the Age well Foundation in India reveals a significant number of elderly individuals face severe human rights violations and abuse. The majority (85.9%) have never heard about these rights, and over 23.3% of them live in inhuman conditions. 12.9% of elderly individuals report not receiving proper food in their old age, and one-third lack access to necessary medicines and healthcare facilities. Nearly half of the elderly population (48.6%) admit to not receiving due respect or fair treatment from their family members and society, indicating

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<sup>40</sup> Vienna International Plan of Action on Ageing, 26 July 1982, World Assembly on Ageing, U.N. Doc. A/CONF.113/26/Rev.1.

<sup>41</sup> United Nations Principles for Older Persons, 16 December 1991, General Assembly, U.N. Doc. A/RES/46/91.

<sup>42</sup> Madrid International Plan of Action on Ageing, 31 July 2002, Second World Assembly on Ageing, U.N. Doc. A/CONF.197/9.

<sup>43</sup> Convention on the Rights of Persons with Disabilities, 13 December 2006, General Assembly, U.N. Doc. A/RES/61/106.

<sup>44</sup> Sushila Devi v. State of Haryana,

the prevalence of elder abuse and neglect. The issue is exacerbated by the increasing popularity of nuclear and small families, leaving 75.5% of older persons living alone or with limited familial support. The violation of human rights is more acute in urban areas, with 65% of elderly individuals in cities experiencing critical life situations due to such violations compared to 57% in rural areas. Elder abuse is a pressing concern, with 25% of elders confirming that they have been victims of mistreatment. The most common forms of abuse include disrespect, verbal abuse, and neglect, persisting for several years. The survey also reveals that the elderly's limited knowledge of redressal mechanisms, such as police helplines, the Maintenance and Welfare of Parents and Senior Citizens Act (MWPSA act), and HelpAge helplines. Additionally, 60% of the elderly report a decline in quality time spent with their adult children and grandchildren due to increased use of phones and computers.

### **Leveraging Technology for Elderly Care and Protection in India**

India's aging population is a critical demographic shift, and by adopting technology, fostering community engagement, and supporting policy initiatives, the nation can empower its seniors, improve their quality of life, and ensure their well-being and dignity. Technology interventions in elderly care and welfare in India include health and nutrition, design, networking, recreation, and entertainment, with a particular emphasis on age-related diseases. Technology plays an increasingly vital role in protecting the rights and well-being of the elderly population in India. Telemedicine and telehealth services facilitate remote medical consultations, health education and awareness provide valuable health information and resources, empowering seniors to take control of their health and well-being. Assistive technologies like voice-activated assistants, smart home devices, and wearable sensors help elderly individuals in their daily lives, reminding them to take medications, monitor their safety, and provide easy access to information and communication. Technology plays a crucial role in creating awareness about the rights and protection of elderly people, such as through social media, online campaigns, and webinars. Elderly care platforms, such as online platforms and apps, connect caregivers, nursing services, and assisted living facilities with elderly individuals and their families, ensuring proper care while adhering to legal and regulatory requirements. Blockchain technology is a key tool for security, securely storing and managing personal and financial information of the elderly. Online platforms and social networks can help combat isolation and loneliness by connecting them with peers, sharing experiences, and accessing relevant information and resources. Emergency response systems are another important aspect of elder care technologies, providing immediate assistance in case of falls, accidents, or other emergencies. These systems can trigger alerts to caregivers, medical professionals, or emergency services. Smart home automation can be customized to cater to the specific needs of the elderly, such as voice-activated controls for lighting, heating, and security. The integration of technology addresses their health and safety needs but also fosters social connectivity and awareness, creating a more inclusive and supportive society for seniors. By embracing and investing in these technological solutions, India can meet the challenges posed by its aging demographic with innovation and compassion. Technology has become increasingly sophisticated and impactful in today's world, with algorithms, artificial intelligence, and machine learning playing a significant role in the lives of seniors. As the United Nations adopted the theme of "Digital

Equity for All Ages" in 2021, many seniors are adapting to this transformative world, using technology to their advantage in various fields. Technology has numerous benefits for older adults, including mental stimulation, reduced isolation, health monitoring, entertainment, and increased independence. Regular internet use can improve cognitive functioning and memory skills, while learning new technological skills can help maintain mental acumen. Reduced isolation is another significant benefit of technology for older adults, as the internet offers a solution to combat loneliness by providing social media platforms for long-lost friends and connecting with family members who live far away. In rural and urban India, technology can be a savior for senior citizens, improving their lives in various and critical ways. Social media platforms and WhatsApp groups keep them connected with family and friends, eradicating loneliness and promoting overall well-being.

### **Technology uses in Elderly Care and Welfare**

Various countries are actively implementing a range of technological solutions to address the needs and challenges of their aging populations. For instance, Sweden has introduced Elderly-Friendly Apps for medication reminders and healthcare communication, while Singapore is concentrating on active aging technologies, including fitness apps and fall prevention systems. In the Netherlands, they use GPS tracking and monitoring systems to support individuals with dementia, and Australia has adopted software systems to manage and monitor aged care facilities. Additionally, China is harnessing the power of artificial intelligence for early disease detection and health monitoring among the elderly. These innovative technologies are tailored to meet the specific requirements of older individuals in each respective country.

Several technologies are essential for the care and protection of elderly individuals, including telehealth services, fall detection systems, smart home automation, medication management, personal emergency response systems (PERS), GPS tracking and geofencing, social connectivity tools, robotics, aging-in-place technologies, cognitive assistive technologies, data analytics and AI, virtual reality (VR), and augmented reality (AR). These technologies cater to a wide range of needs among the elderly, from healthcare access to social interaction, safety, and support for daily living. some of them are follows:

- ✓ **Assistive Technology for the Elderly:** Assistive technology encompasses devices, equipment, and gadgets that enhance elderly individuals' independence and quality of life. It is particularly essential for helping seniors maintain their autonomy and remain in their homes. The benefits of assistive devices are diverse, catering to a wide range of needs among the elderly, from memory support for those with dementia to communication aids for stroke survivors and visually impaired individuals needing internet access. These devices contribute to improved health, safety, comfort, and independence for older adults.

## *Types of Assistive Technology & Devices*

- **Personal Alarms:** Personal alarms, such as wearable pendants, offer immediate access to help when seniors press a button, alerting designated contacts or monitoring teams in cases of emergencies or falls.
- **Telecare Systems:** Telecare monitoring systems use sensors within the home to detect unusual activities and alert a monitoring team or contacts when necessary to ensure the elderly's safety.
- **GPS Trackers:** Wearable GPS trackers help monitor the location of elderly individuals, particularly useful for those with dementia or a tendency to wander.
- **Home Safety and Security:** Smart devices like doorbells, locks, lighting, smoke alarms, and water-overflow sensors enhance home security for the elderly.
- **Memory Aids:** Assistive technology includes memo reminders and automatic pill dispensers, helping older adults remember essential tasks and medication schedules.
- **Communication Aids:** Accessible mobile phones and speech-generating devices enable seniors to stay connected and overcome communication challenges.
- **Visual Aids and Screen Readers:** These technologies help visually impaired individuals use computers, smartphones, and tablets by reading out screen content and providing navigation assistance.
- ✓ **Smart Home Monitoring Systems for Elderly Care:** Smart home monitoring systems, including SECOM Smart Wellness, Sentai, Stack Care, Taking Care Sense, and Taking Care Safe Home Alert, offer passive sensor-based solutions to monitor the well-being of the elderly. These systems detect changes in routines and behaviors, providing peace of mind for families and caregivers. They are particularly valuable for families who live at a distance from their elderly relatives and wish to ensure their well-being.
- ✓ **Home Monitoring Terminology:** Various terms are used to describe home monitoring services, such as "telecare," "assistive tech," "connected care," and "technology-enabled care." These systems use technology to enhance safety and well-being for the elderly, going beyond traditional telecare.
- ✓ **Personal Alarms for the Elderly:** Personal alarms are wearable devices that enable older individuals to seek help in emergencies. They come in various forms, from simple pendants with an SOS button to more advanced mobile alarms with automatic fall detection and mobile support. These alarms are invaluable tools for ensuring the safety and well-being of elderly individuals, enabling them to get assistance quickly in emergencies.

## Future Technological Innovations for Elderly Care

The future of elderly care technology is promising, with potential advancements such as self-sustaining elderly communities, holographic or augmented reality care providers, emotional AI and mental health support, brain-computer interfaces, personalized health guardians, holistic home automation, AI-powered care companions, blockchain-based elder data security, elderly-friendly transportation, legal tech for elderly rights, and virtual reality for mental health. These innovations aim to enhance the quality of life and ensure the well-being of the elderly population.

- **Elderly-Friendly Technology:** Elderly-friendly smartphones and apps are becoming more accessible to seniors, promoting digital inclusion. Financial inclusion, e-learning, and transportation solutions are improving access and quality of life for the elderly. However, challenges related to digital literacy, affordability, and privacy need to be addressed to fully realize the potential of technology for the elderly population.
- **Elderly Rights in Legal and Education Systems:** In India, integrating technology into the education field is vital for protecting the rights and well-being of the elderly. Digital literacy programs and online dispute resolution platforms are essential for enabling the elderly to access legal services. Moreover, elderly-focused educational content and AI chatbots can offer legal guidance. Ensuring elderly-friendly digital infrastructure is crucial, but challenges like digital literacy and data privacy must be addressed.

## Empowering India's Elderly through Digital Literacy

India's elderly population faces unique challenges in adapting to the rapidly evolving digital landscape. The prevalence of online transactions and technological advancements can potentially isolate and complicate daily tasks for older individuals. However, digital literacy initiatives are making significant strides in improving the quality of life for the elderly. Organizations like HelpAge India are conducting digital literacy workshops led by enthusiastic young volunteers, empowering seniors with essential skills. These efforts have connected a substantial number of elderly individuals and Senior Citizens Associations in India to the digital world, enabling them to use smartphones, access mobile applications, and engage with social media platforms like Facebook, WhatsApp, and YouTube. Despite challenges, such as a digital divide, these programs are essential for bridging the technology gap among the elderly, especially in rural areas. Government-led initiatives like the Pradhan Mantri Gramin Digital Saksharta Abhiyan and the Silver Surfer Program are playing a vital role in promoting digital literacy among older individuals in rural districts. As India's elderly population is expected to grow significantly, digital literacy will be crucial for their civic participation, healthcare access, and overall well-being, empowering them to navigate the digital world and enjoy its numerous benefits.

Digital literacy can empower India's elderly and reduce their dependency on others, ultimately improving their quality of life and enhancing their autonomy. Despite challenges like low digital and health literacy in rural areas,

organizations like Agewell Foundation and HelpAge India are conducting impressive digital literacy programs that have benefited thousands of elderly individuals. With the right support and resources, the elderly can actively participate in modern society, maintain their independence, and enjoy the advantages of the digital world, from online transactions to staying connected with loved ones.

- Improving digital literacy and accessibility for India's elderly is a pressing issue. A significant portion of senior citizens in India lacks the knowledge and skills to use digital technology due to factors like unreliable internet access, high subscription costs, and low literacy rates among older women. The gender dimension is especially pronounced in rural areas, where male heads of households often control digital devices, leaving women, including older women, dependent on male family members. This dependence limits their access to digital empowerment and independence, impacting their individual growth opportunities. Age-related cognitive decline and health challenges can also hinder the adoption of digital tools, even though these tools could address many of the challenges facing seniors. Nevertheless, digital technology holds immense potential to enhance the quality of life for India's elderly, offering solutions in education, healthcare, social support, and combating loneliness. **HelpAge India v. Union of India**<sup>45</sup>, holding that the right to digital literacy is a fundamental right under Article 21 of the Indian Constitution and directing the government to take steps to promote digital literacy among the elderly).

Initiatives aimed at expanding digital access, building trust in technology, and tailoring digital tools for the elderly are essential to bridge the digital divide and ensure that the elderly remain connected in an increasingly technology-driven society. Efforts by the government, private sector, and organizations like HelpAge India are crucial in achieving this goal and reducing digital inequalities among India's aging population.

## CONCLUSION

The aging population in India presents both challenges and opportunities for the country. To tackle these issues, a multifaceted approach is needed, including technology integration, strong public policy support, and community engagement. Elderly individuals are valuable resources, contributing to the family economy through their income, energy, and wisdom. However, some are sent to old age homes, which are often seen as social containers. Reassessing and reshaping society's care for elderly citizens is crucial to empower them to lead dignified, independent lives and make valuable contributions to society. Recognizing the wealth of experience, skills, and wisdom that older individuals bring to communities can unlock a brighter future for this growing demographic. Authorities, the judicial system, and the government must recognize and uphold the human rights of older citizens. Legal provisions play a pivotal role in creating a social harmony environment for the elderly. Digital literacy is essential for empowering elders, helping combat social isolation, establish new relationships, stay connected, and pay essential bills.

<sup>45</sup> W.P.(C) No. 44 of 2019, ¶¶ 23-25 (Delhi High Court 2023)

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