



1. Digital Literacy Among Elderly People and Usage of Digital Means

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ABSTRACT

India is the second largest and fast-growing country in the world. As citizens grow old the problems of health care, nutrition, loneliness, isolation increase. Along with the physical and other social problems the one problem many senior citizens are facing in using technology. While the government's National Digital Literacy Mission (NDLM) aims to empower at least one person per household with crucial digital literacy skills by 2020, the elderly population seems to be missing from the plan. With computerization or digitalization of almost all basic services and facilities, digital literacy has become need of the hour especially for the elderly population. Studies have shown that digital literacy can be a boon for older persons, particularly for those who live alone, who live away from their children/grandchildren, live with mobility constraints and want to live independently in old age. Keeping this in mind, a study has been taken up to explore the perception of elderly people regarding use of digital technology. The aim of the study is to explore knowledge of elderly people towards the use of digital technology. A survey was conducted with the sample of 115 participants residing in central areas of Mumbai city. Purposive and snow ball sampling technique was adopted for the study. A self-constructed tool was used and the survey was carried out through face-to-face interviewing senior citizens using semi structured questionnaire. The participants express that digital technology is a good thing for today's world in every field. Many of them are also aware about various apps and modes of the digital technology and show their willingness to adopt them. The study also observed that despite limitations due to age and motor skills, there is a keen desire among older persons to keep them connected with the new world, ruled by internet and information technology

KEYWORDS

Digital Literacy, Usage of Smart Devices, Digital Technology among Respondents, Tool for Data Collection, Skills of Learning.

Introduction:

Digital literacy and use have become essential in today's fast-paced, technology-oriented world. Although there is a lot of focus on the younger generation using digital modes, it is equally significant to ascertain how senior citizens are using digital Apps and how literate they are in using digital platforms. Digital knowledge gives opportunity to elderly to stay connected with family and friends through social media, video calls, and instant messaging.

This is crucial for combating loneliness and fostering a sense of belonging. In today's world internet is an ocean of vast information and the elderly if having suitable skills can operate various mediums and access to wealth of information available. The newspapers, health advices, entertainment, money transactions are accessible and are at their fingertips. They can manage their financial work more efficiently and securely with online banking and digital payment systems, reducing their reliance on physical bank visit, access to digital mediums empowers seniors to continue lifelong learning and stay mentally active, keep them engaged and promotes cognitive health.

Furthermore, being digitally literate boosts their confidence and independence, allowing them to navigate the modern world with ease. The Society is progressively moving towards digital from the children to the adult. Elderly users are still limited in their ability to use and access information due to multiplicative effects might come with increasing age factor. Many elder people facing so many difficulties in using Smart devices in accessing information in terms of opening functionality and interface design

The digital technology is still not widely adopted by the Senior Citizens as compare to young people. Study have shown that older people have fewer interest and anxiety when using technology. They also tend to show less confidence in their own knowledge, capabilities and Skills of learning and using digital technology. Citizens who are older and tend to have significant issues with health or disability are also largely disconnected from the world of digital tools and services physically and psychologically. There are challenges for elderly people while using digital technology which may be barriers in adopting to new smart devices by them. The issues with manual dexterity, trouble to see the small details, poor visual acuity, makes it difficult for elderly to handle devices. Looking all this, It is pertinent to explore the perception of elderly people regarding knowledge of digital world and usage of smart devices.

Objectives of the Study:

1. To explore the knowledge of elderly people towards the use of Digital Technology.
2. To know how older adults pursue the digital technology.
3. To understand older people's familiarity with and barriers to interact with digital technology.

Methodology:

- Exploratory & Survey method.
- **Sampling:** Purposive sampling focusing only elderly population who are 60 years and above. Sampling size was -115 elderly citizens of Mumbai city.
- **Tool for Data Collection:** Self constructed semi structured questionnaire interview was conducted personally with elderly people.

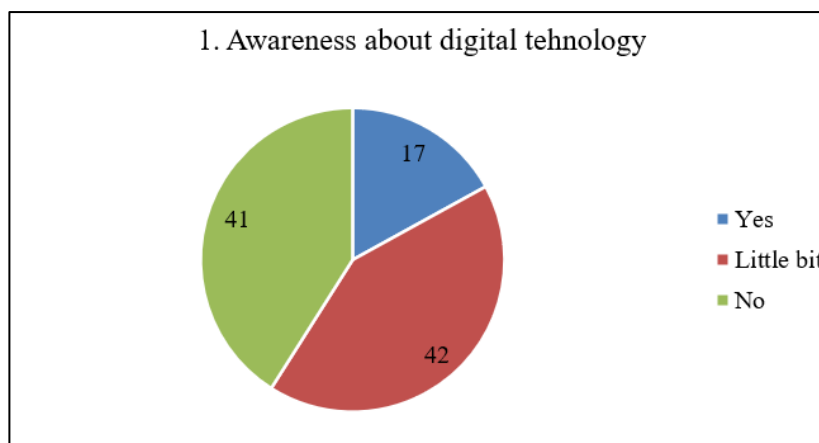
The teaching aids were prepared to give them more information on technology, the flash cards of Mobiles computer, laptop, TV etc. were used to make elderly people aware about various devices.

Results:

The below table indicates the Awareness Level:

Awareness Level	Frequency
Yes	17
Little bit	42
No	41

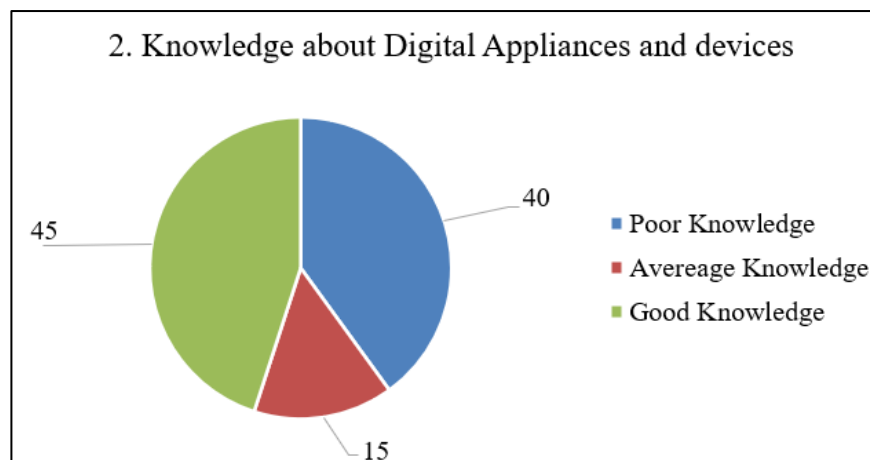
The data illustrates the level of awareness about digital technology among respondents. A significant portion, 42, reported having only a limited understanding of digital technology. This suggests that while there is some awareness, it is not comprehensive. Additionally, 41 of respondents indicated that they have no awareness of digital technology, which points to a considerable knowledge gap in this area. Only 17 of respondents expressed confidence in their knowledge of digital technology, highlighting the need for increased efforts in education and training to enhance digital literacy. This data reflects the challenges faced in promoting digital adoption, particularly among those with limited or no understanding of its benefits and uses.



The below table indicates the Knowledge Level of respondents:

Knowledge Level	Frequency
Poor Knowledge	40
Average Knowledge	15
Good Knowledge	45

The data indicates the respondents' knowledge levels regarding digital appliances and devices. A significant majority, 40 respondents, reported having poor knowledge, suggesting that many individuals may lack familiarity with various digital technologies. Conversely, only 15 respondents stated they possess average knowledge in this area, indicating a small segment with a moderate understanding. Notably, 45 respondents expressed good knowledge, which highlights that while some individuals are well-informed, a substantial portion still struggles with digital literacy. This disparity emphasizes the need for targeted educational initiatives to improve overall understanding and use of digital appliances and devices among the population.



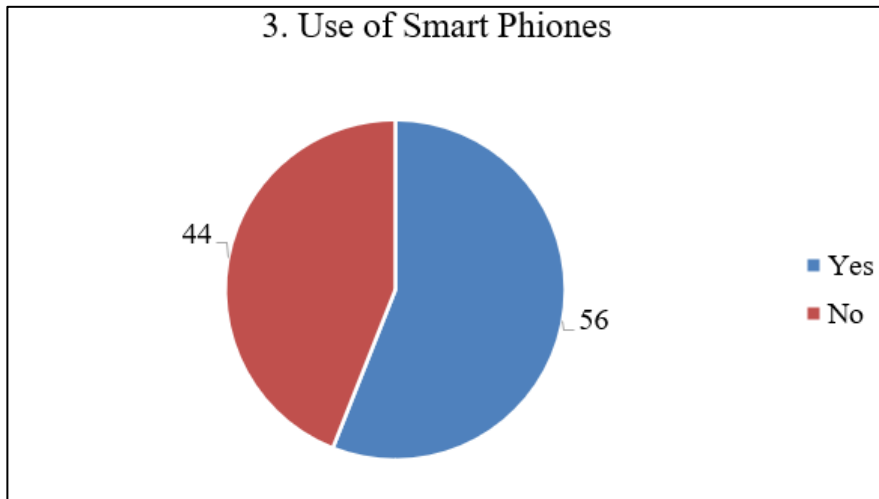
The below table indicates the respondents using smart phones:

Use of Smart phones	Frequency
Yes	44
No	56

The data reflects the respondents' usage of smartphones. A majority of 56 individuals reported that they do not use smartphones, indicating a significant gap in smartphone adoption within the surveyed population. In contrast, 44 respondents indicated that they do use smartphones, which suggests that while there is a notable segment of smartphone users, it is outnumbered by those who do not utilize this technology.

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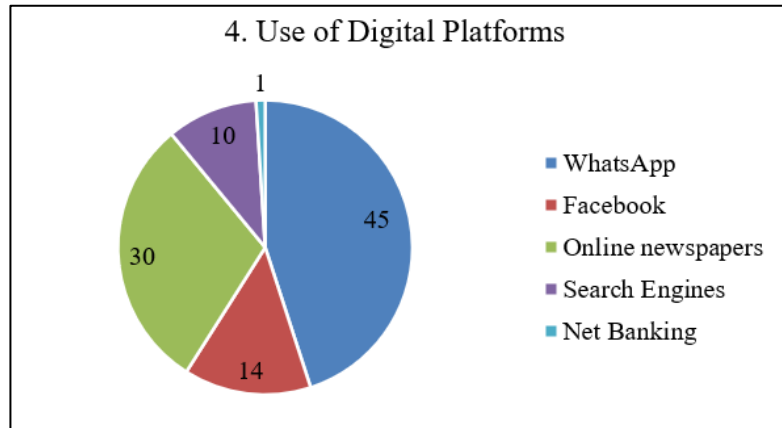
This disparity could be attributed to various factors, including economic constraints, lack of awareness, or preference for alternative communication methods. Addressing the barriers to smartphone usage may be essential for enhancing digital connectivity and access to technology among the population.



The below table indicates the respondents Using of Digital Platform:

Use of Digital Platform	Frequency
Whatsapp	1
Facebook	45
Online newspaper	14
Search Engines	30
Net Banking	10

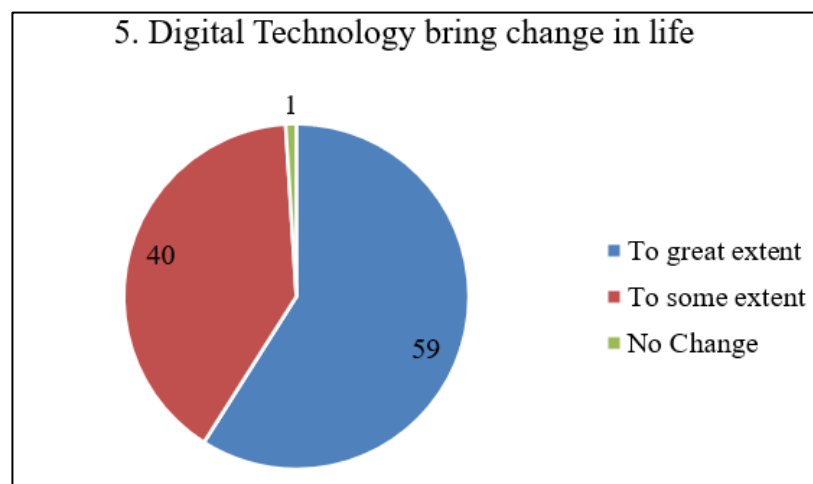
The data on the use of digital platforms by respondents reveals varied preferences, highlighting social media's dominance, particularly Facebook, with 45 users. Search engines also play a crucial role, attracting 30 respondents for information access, reflecting their importance in everyday digital activities. Online newspapers have garnered attention from 14 respondents, indicating a modest yet significant reliance on digital news consumption. Net banking is used by 10 respondents, showing the increasing role of online financial transactions. Interestingly, WhatsApp has only 1 respondent, suggesting minimal preference for this platform in the context of the survey, despite its widespread use in other scenarios.



The below table indicates the change in life using digital technology:

Digital Technology bring change in life	Frequency
To great extent	59
To some extent	40
No Change	1

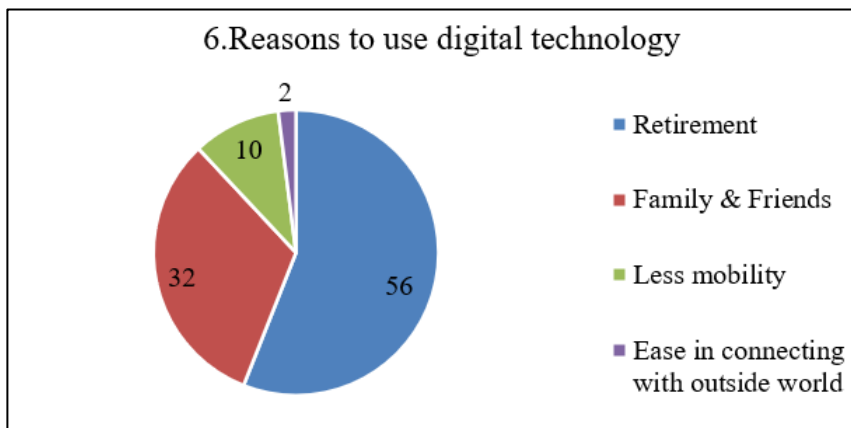
The survey results indicate a significant perception of the impact of digital technology on individuals' lives. A majority of respondents, 59, believe that digital technology brings about changes to a great extent, suggesting that they recognize its transformative effects. Additionally, 40 respondents feel that technology has changed their lives to some extent, reflecting a positive acknowledgment of its benefits. In contrast, only one respondent reported no change, highlighting a strong consensus among participants regarding the positive influence of digital technology in modern life. This data emphasizes the importance of digital advancements and their role in shaping experiences and enhancing everyday activities.



The below table indicates the Reasons to use digital technology:

Reason	Frequency
Ease in connecting with outside world	56
Family & Friends	32
Retirement	10
Less mobility	2

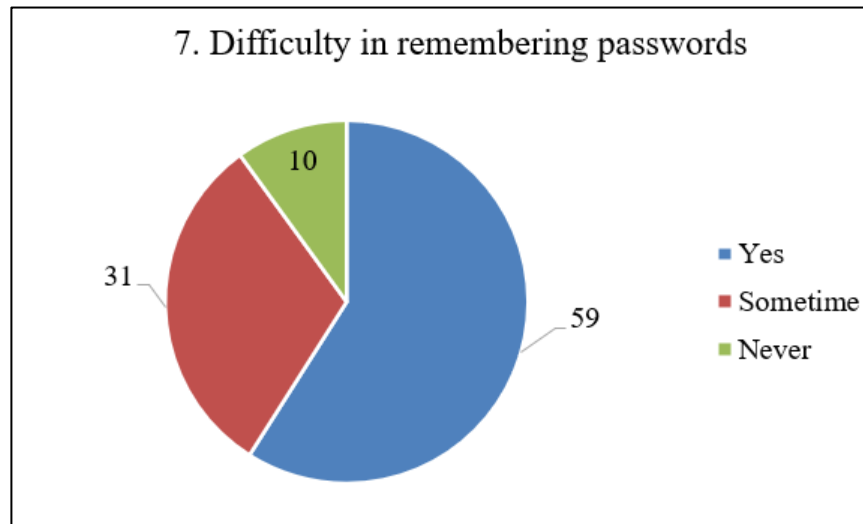
The survey results illustrate the primary motivations behind individuals' use of digital technology. The most significant reason, cited by 56 respondents, is the ease of connecting with the outside world, highlighting the essential role of digital platforms in fostering communication and engagement. Family and friends also play a crucial role, as 32 respondents indicated that their relationships motivate their use of digital technology. Retirement appears to be a consideration for 10 respondents, suggesting that individuals may seek digital tools to enhance their lifestyle post-retirement. However, only 2 respondents identified less mobility as a reason for using digital technology, indicating that this factor may not be as prevalent among users. Overall, the findings reflect a strong inclination towards utilizing digital technology primarily for social interaction and connection.



The below table indicates the Difficulty in remembering passwords:

Difficulty in remembering passwords	Frequency
Yes	10
Sometimes	31
Never	59

The survey results regarding the difficulty of remembering passwords indicate that the majority of respondents do not struggle with this issue. Specifically, 59 participants reported never having difficulty with password retention, suggesting a strong familiarity or effective strategies for managing their passwords. In contrast, 31 respondents indicated that they sometimes face challenges, pointing to a potential need for better password management solutions. Only 10 respondents admitted to having difficulty remembering passwords, which is a relatively small proportion compared to the overall population surveyed. These findings highlight the effectiveness of current practices among users in managing their passwords, but they also suggest that some individuals may benefit from additional support or tools to aid in password memorization.

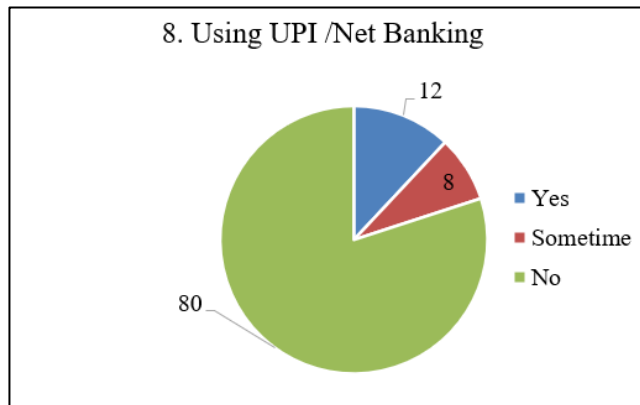


The below table indicates the respondents using UPI/Net banking:

Using UPI/Net Banking	Frequency
Yes	12
Sometimes	8
No	80

The survey results regarding the use of UPI (Unified Payments Interface) and net banking reveal a predominant trend of limited adoption among respondents. A significant majority, 80 individuals, reported that they do not use these digital payment methods at all, indicating a possible reliance on traditional payment methods or a lack of familiarity with digital financial services. Meanwhile, 12 respondents affirmed that they use UPI or net banking regularly, demonstrating some engagement with digital payment solutions. Additionally, 8 respondents indicated that they use these services sometimes, suggesting a more tentative approach to digital banking. Overall, the data highlights a substantial gap in the adoption of digital payment technologies, with most respondents opting for alternatives to UPI and net banking.

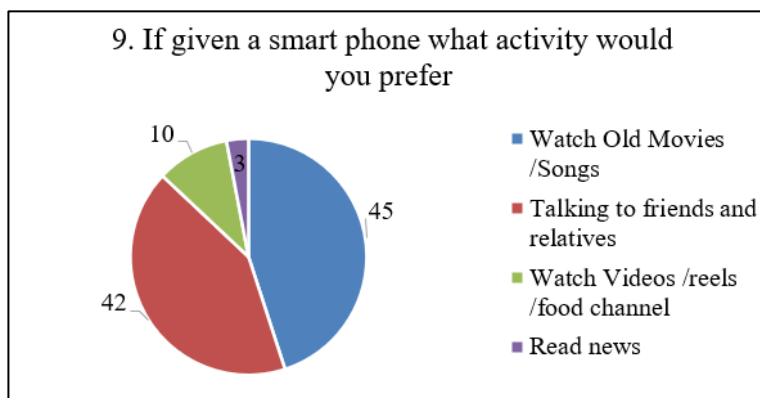
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The below table indicates the activity preferred in smart phone:

If given a smart phone what activity would you prefer	Frequency
Watching old movies and songs	45
Talking to friends and relatives	42
Watch movies/ reels / food channels	10
Read news	3

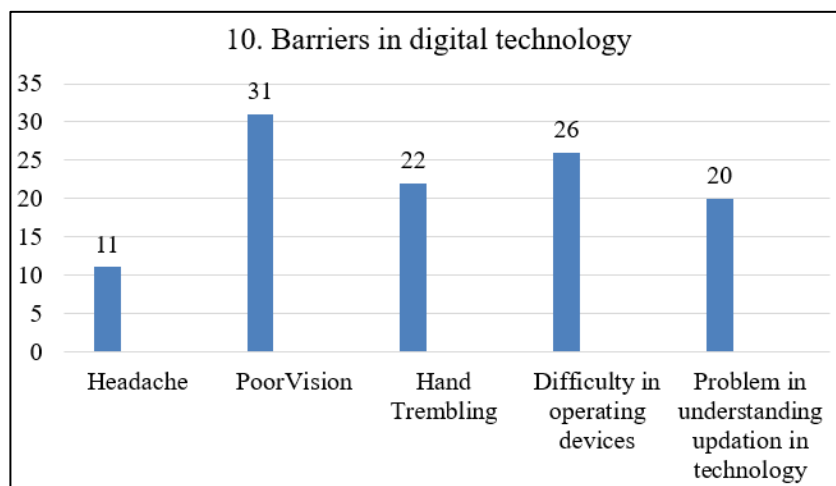
The survey results on preferred activities when given a smartphone highlight a strong inclination towards entertainment and social interaction among respondents. A substantial majority, 45 individuals, expressed a preference for watching old movies and songs, indicating a nostalgic connection to classic media. Close behind, 42 respondents favored talking to friends and relatives, underscoring the importance of social connectivity in the digital age. In contrast, only 10 respondents opted for watching movies, reels, or food channels, while a mere 3 individuals indicated a preference for reading news. These findings suggest that, for most users, smartphones serve primarily as tools for entertainment and maintaining personal relationships, rather than for consuming news or exploring diverse content.



The below table indicates the Barriers in Digital Technology:

Barriers in Digital Technology	Frequency
Headache	11
Poor Vision	31
Hand Trembling	22
Difficulty in operating devices	26
Problem in understanding updating in technology	20

The survey results on barriers to utilizing digital technology reveal a range of challenges faced by respondents. A notable concern is poor vision, reported by 31 individuals, indicating that visual impairments significantly hinder their ability to engage with digital devices. Additionally, 26 respondents mentioned difficulties in operating devices, suggesting that usability issues may prevent effective interaction with technology. Hand trembling also poses a challenge for 22 respondents, which can complicate device use. Furthermore, 20 individuals expressed problems in understanding updates in technology, reflecting a potential gap in digital literacy. Lastly, 11 respondents reported experiencing headaches, which may deter prolonged use of digital screens. Overall, these findings highlight the various physical and cognitive barriers that can limit individuals' engagement with digital technology, underscoring the need for more accessible and user-friendly solutions.



Conclusion:

The current research was done on elderly middle class citizens of Mumbai city, to study their perception regarding digital literacy and usage of smart devices. Total 115 senior citizens were interviewed. The results show that the most of senior citizens are not much aware about digital technology i.e. only 17% were aware about the technology.

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Most of the elderly people are not comfortable using smart devices and they reported being comfortable with old button phones. The elderly who use technology, reported using smart devices for watching news, calling friends and family and like using smart phones and features like video calling, conference calls etc.

The most used digital platform is social media where elderly citizens connect with others on WhatsApp which they use to talk to family members and friends. A good number of elderly people uses UPI for making financial transaction.

It was also revealed in the study that elderly people face difficulties in handling digital devices due to poor vision, manual dexterity issues and face issues with remembering and recalling passwords. Some also opined that passwords should not be there, as this security feature is not elderly friendly.

Many reported that understanding new technological advancement in Apps and devices is somewhat difficult for them to adopt. The optimistic result come out of the study is that majority of elderly people are open and ready to learn more about technology and want to use them when guided properly by caretakers or anyone who has time for them.

How to help and empower elderly people with digital world

The care takers and family members help elderly feel comfortable with the digital world by:

- Individual training: let the seniors learn at their own pace and offer face to face training or in small groups.
- Be patient and understand their limitations. Being empathetic is a important aspect of training.
- Validate their confusion. They are learning something which they have not done before in long years of their age so, the learning may be slow and as a trainer you must acknowledge that learning technology can be difficult in such age, but it will get easier with practice.
- Help them to understand that they must adapt with changing world hence it is important for them to learn new technology.
- Try to find what they already know and what they need to learn.
- Provide free resources: Provide access to free tech tutorials designed for seniors.
- Seniors can be given customized technology devices where they access it comfortably like Smart TV with voice assistance features, translation services by google etc.
- Create opportunities for wow moments: Show them how technology can be used to do amazing things, like seeing their childhood home on Google Earth.
- Involve all family and friends on weekends or any given opportunity to connect through skype to embrace technology by setting up devices and providing regular practices.
- Many seniors may feel like they cannot ask a question because of limited knowledge. Help them to ask you questions and give them simple clear answers with solutions for their confusions. Make them feel more comfortable.

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