**Catching up with the Technology**

* Dr Swarna Buddha Nayok

Technology has now become a part of us. Keeping the risk-benefit debate aside, we cannot deny that technology is not important for us. However, the elderly population is often quite away from it, by themselves or by us. While teenagers are born in it and moulded by it, and the current middle-aged population has adapted to technology, it remains elusive for our seniors. Telling an elderly people that they have to now learn new things about technology is frustrating for them as well for us. The importance of technology in old age, the ways to increase digital literacy and the barriers and challenges to it are discussed below.

**Case 1:**

*“Technology is the campfire around which we tell our stories.” ~ Laurie Anderson*

Mrs A has retired about 10 years back and now lives in her deceased husband’s ancestral home. Her sons and daughters are doing well in different cities across India. She spends time supervising agricultural work and is cared for by some helpers. Although not alone, she feels lonely. It has been years since she has seen her children and grandchildren. A routine weekly phone call from them is what she awaits. When she narrated this, her caretaker found it funny, and told her video calls are now the new normal. She showed her in her smartphone how with a few clicks she could see everyone she longed to. Mrs A quickly became familiar with the technology and now her granddaughter is going to tell her which smartphone to buy in the next video call!

This is one of the major concerns in the geriatric age group. Loneliness often builds to depression and anxiety and they are rendered helpless. It is also difficult to travel more often to meet the beloved once, and the grand family reunions are restricted to important festivals, maybe twice a year. This need not be the case if the elderly person is showed how easily video calls can be used. This removes the feeling of being left out, and seeing their family and interacting with them keeps a person satisfied. All smartphones now come with video call options, and numerous apps are there to help (WhatsApp, Skype, Zoom). These are often deliberately user friendly, and requires no more than a few clicks. Entertainment is often easily available by apps (SonyLiv, Hotstar, Netflix) and reduces the further feeling of loneliness.

**Case 2:**

*“We don’t grow older, we grow riper.” ~Pablo Picasso*

After his second heart attack in the last six months, Mr R is now more worried. He can choose to stay with his son in another city, but for how long? There is not enough space for Mr R and his wife too. Being with his son will be helpful in case of medical emergencies, especially the slowing of heartbeat that the doctor warned him of. In consultation with helping organisations, his son gave him a weird-looking watch that he should wear daily. This was a wearable sensor monitoring his heart rate and other vitals, conveying the data in real-time and was stored. Any abnormality would be detected and the son will be warned. By now, Mr R in his late seventies has found a dependable lifeline in his black weird watch.

A vital area where technology is helping is to make healthcare more accessible. Visiting doctors is often necessary but cumbersome for the elderly. Everyday monitoring of vitals and health conditions is important as it helps to get early treatment for emergencies. Wearables that measure health-related statistics are automated and easy to use, relaying information in almost real-time to family members and doctors. This makes monitoring much easier and probably less expensive. Numerous apps help to monitor sleep, food intake, heart rate, respiration, eye vision and what not (AliveCor’s Kardia, Viatome Checkme Pro, Magnifying Glass + Flashlight, Dozee, Google Fit).

**Case 3:**

*“Anyone who keeps the ability to see beauty never grows old.” ~Franz Kafka*

Mrs S never really understood what her teenage grandson did all the time on phones. She found it distracting. When the grandson wanted to get a new smartphone for himself, the biggest challenge was to make the 65-year-old Mrs S agree to it. Determined to show the utility of the phone, he waited for his opportunity until one day an old friend of his grandmother was in emergency and wanted some money. With no one at the house to go to the bank, Mrs S was distraught, until her grandson opened a banking app and with ease helped her to transfer some money. No long queues, no signatures, no travelling!

Financial security is complete only when it is easily available. Most banks now are moving towards paperless and online platforms. This makes the older people be in danger of being left out. It is no longer how it used to be, going to the bank on a morning and chatting with the employees with news of the week over a cup of tea. The banking sector is now extremely busy. Smartphone apps (YONO SBI, CANDI) of each bank are now available, so are payment methods (Google Pay, Paytm). A serious issue with this is privacy and security, and now almost no transaction can be done without an OTP or email account. How to quickly find the One Time Password (OTP) on the phone and type it back and access accounts may take a while to learn, but it makes banking easier.

**Case 4:**

*“Count your age by friends, not years.”  ~John Lennon*

After finding that his memory may be on the decline, the 72-year-old Mr L fanatically searched for something to stop its progression. He did not have a group of friends who could help him. The Doctors showed him a few computer games which would aid his memory. Moreover, he learned quickly to navigate through online videos and self-help group meetings through video-conferencing. He now has apps to remind him of his credit card payments and bills. He is planning to start his blog to help others of his age.

We have moved forward from crosswords and sudokus to be done in every day’s newspaper. Technology has made cognitive tasks and training simpler and more fun. Numerous apps keep you engaged with quality training of memory deficits (MindMate, Constant Therapy, Lumosity, Jigsaw Puzzles Real). Such cognitive training is effective and cheap. Technology also helps to find support groups and join them through video conferencing and email exchanges. The elderly, even the ones with lower education, should be taught how to at least join a video meeting online.

**Case 5:**

*“Getting old is like climbing a mountain; you get a little out of breath, but the view is much better!”  ~Ingrid Bergman*

Mrs J now proudly teaches her friends about online apps. She finds it empowering, not to depend on anyone but to get the right groceries and household things through smartphone apps. She now does not feel that her amputated right foot due to her diabetes has made her disabled. At the age of 63, she finds herself still relevant in the daily activities of the family, like shopping and deciding the menu of the day.

Technology is an always available helping hand, from choosing what to buy to choosing what food to order. Those with difficulty in locomotion will benefit greatly from this. There is plenty of groceries app (Instamart, BigBasket), general and clothing apps (Amazon, Myntra) and food delivery apps (Zomato, Swiggy). Although they cannot replace the joy of selecting the best vegetables, cooking and the mother’s touch, they are very useful indeed.

**Case 6:**

*“Age is an issue of mind over matter. If you don’t mind, it doesn’t matter.”*

*~Mark Twain*

Mr D was left alone in the streets after he missed the metro. Alone at midnight, it took about one hour to get an auto and one more hour to reach his home which was just 30 minutes away. This hassle left Mr D not only angry but afraid of further such incidents. It also made him ask his son to teach him how to use apps to find cabs and autos. In his 66 years of life, he did something that he thought he would never do, download a transport app on his new smartphone.

Travelling is now easier if we are used to a bit of technology. Several apps (Uber, Ola) are available. These reduce the hassle of bargaining and being cheated. Even train and flight bookings are made online now, although they are a bit more cumbersome, they are bound to become better and better.

**What are the drawbacks?**

Whatever has effects, has side effects and dangers of excessive use of technology is clear from the increasing internet and gaming addictions among the younger population. Increased screen time may reduce sleep, there is often information overload on the internet. Too many WhatsApp forwards to choose from and keeping up with the “exciting” new updates of each app may be tiresome. Then there is the risk of data leakage, tearing of privacy and frauds in financial lines. Giving away vital information like OTP and card security code (CVV) can lead to financial loss. Digital empowerment of the elderly will need assistance at many steps as cybercrime is the same for all. The elderly may be more vulnerable to cybercrimes and luring emails and advertisements. Thus, one needs to be taught what to do and what not to do as well.

**What are the barriers?**

* Physical limitations: tremors, osteoarthritis, visual impairments
* Mental limitations: afraid of making mistakes, sharing the wrong pictures or emails, calling the wrong person, afraid of the phone falling or getting an electric shock from a laptop, afraid of long and cumbersome instructions, afraid of harmful radiations
* Personal: literacy, especially reading, language, reduced motivation to learn, no support from others, unfamiliar with electronic gadgets
* Technology related: too complicated, not user-friendly, small buttons, small screen and letters, inappropriately sensitive touch screens

**What are the basics?**

The basic of all technology is to identify key buttons, like how to start a Computer Processing Unit (CPU) and laptop, how to navigate with fingerprint locks and passwords. How to swipe the phone up and down, how to tap n the smartphone screens, how much pressure is too much or too little, how to troubleshoot or at least restart the phone apps is important to know. Each app has written boxes that are to be tapped. Thereafter, each app builds up its function on these basic features of tap, press and swipe. The problem seen often is in dexterity and tremors, common in the elderly. With minimal training, these difficulties can be overcome. Voice commands are available, in vernacular languages too. The basic of how to open the phone screen, select an app or phone number, which dial button or boxes to press and how to stop all of these are the basics that need to be taught. The recharging process and plug-in are to be taught.

**What are the available options?**

Several organisations have understood the need of integrating at least basic digital literacy in the elderly. They organise workshops and have pamphlets and downloadable guides on how to use computers and phones. Some (HelpAge India) is in partnership with the Information and Technology Ministry's e-governance services arm Common Services Centre (CSC). The Ministry of Science and Technology under the Government of India has started programmes like Technology Interventions for Disabled and Elderly (TIDE), which is an e-Tool to create awareness and impart health and hygiene-related information along with education and entertainment to overcome loneliness. A wearable sensor device has also been developed. We should also try to educate the elderly people around us about the basics of technology for their help.

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