

5 Types of Innovative Technologies to enhance the Lives of the Elderly

Mada Center

Mada centre has launched many initiatives to improve the life, environment and independence of the elderly through ICT accessibility. These initiatives include introducing the “Independent living Guide” and @TWASEL training program for the elderly in cooperation with Ehsan and GRSIA. Mada understands that the world’s population undergoes a continuous ageing process. The ageing population is facing major health problems such as chronic illnesses, disabilities, physical and moral impairments. The need for innovation in elderly care is permanent as technology and medicine develop rapidly with time as well as human nature and habits.

There have been several technological advancements for the wellness of the ageing community. From simple applications to keep track of their appointments to the robotic structure to support them in mobility. We will be highlighting five of these solutions below:

1. Pill Reminder and Medication Tracker and digital Pillboxes:

There have been several applications that help to organize taking medications at set times that can be coordinated at any time during the morning, afternoon, or evening. The increasing popularity of tablets and smartphones means it is a rarity to find a person without one elderly people. This sort of apps helps the user to organize their prescription schedule with greater ease and will ensure that patients will have a daily reminder to take their daily medications without missing out on it. Apps like Medi Safe, Tab Time, Med Minder, Pill Pack, E-pill are the most user-friendly according to the users’ reviews.

Digital Pillboxes are the next generation with alarms and voice command reminder. These tech-savvy pillboxes are designed to let the seniors take their medications by displaying both personal health information in addition to reminding them when to take their medication.

2. Mobility Aids

The technology revolving around the mobility needs of the elderly has also evolved with it. The walking stick has been a reliable prosthesis for thousands of years. Today we have walking sticks with ergonomic shape ideal for one’s hand to grasp it comfortably, even when the weight of the upper body is applied while having self-stabilizing technology in case of any hand slips from the user. There are sticks with the grip, a tiny screen and an audio jack, allowing the cane to communicate with its user. While functions like build-in sensors, LCD Display panel, built-in GPS, SOS button and control to send voice commands are emerging, the mobility of elderly is becoming accessible and safer. Canes with the capability to keep track of its users’ vital signs including blood pressure, heart rate and temperature, and a virtual map can communicate directions to the user through a pair of headphones are becoming a reality. In addition to that, electronic walkers and rovers were designed specifically

to improve the safety of the elderly who use regular walkers to get around on a day-to-day basis. These features have moved for elderly in any environment safe and accessible

3. Electronic Wearables:

Smartwatches, Digital cuffs, Airbag Hip belts are the few wearables from many that stand out with their neat designs and innovative features to support the life of the elderly. Wearable safety devices can inspire greater confidence in the elderly and their families as they will allow them to get more active. A wearable device is better than a mobile phone because it's less likely to get lost and are always designed to be with the user. Features like fall detection, heart rate monitor, ECG monitor, two-way communications make it easy for both user and support staff of the elderly. As far as safety is concerned, most safety wearables still require a caregiver to track the person wearing them and to be available in case of emergency.

4. Smart Home Assist

When it comes to building a safer and digitally accessible environment for an elderly person in the house, smart homes play a major role. A smart home is a home outfitted with devices that can be controlled over an internet connection on one's desktop, tablet, or smartphone. There are hundreds of devices on the markets that can make up a smart home system. From smart thermostats to Wi-Fi enabled lighting system, smart technology is revolutionizing homes. Basic elements can now be automated or controlled by a smartphone or by voice command while sitting anywhere in the house. Even though smart homes are getting popular, it has not been widely adopted by the elderly community due to the lack of knowledge about technology.

5. Elder-care robots

An era where everything or service is replaced by robots, Eldercare was also put into the fast stirring change while integrating robots in the life of the elderly. Artificial Intelligence is advancing with smarter and more efficient robots. To respond to the crisis, robots are beginning to assist older adults in nursing homes, hospitals and at home. Emotion sensing robots are playing a major role in assisting the elderly physically and mentally in day to day life tasks. Robots can even respond to joy, sadness, anger or surprise for the user. Plenty of obstacles may hinder a rapid proliferation of elder care robots such as high costs, safety issues and doubts about how useful they are or how user-friendly they can be. Developers have already focused their efforts on producing simple robotic devices that help frail users to get out of their bed and into a wheelchair, or that can ease senior citizens into bathtubs.

Innovations are surfacing around the world every day to improve the quality of life of the elderly. Some of these technological innovations are already available to some, others will be in the markets in months, and some in a few years, if at all. We don't know what the future will look like, but all signs tell us that new technologies make life easier, safer, and better for seniors, that is if tech companies can find the sweet spot between what seniors need and what they're comfortable using. Learning about technology for the first time can be frustrating for seniors. A calm, cool behaviour can

go a long way towards making the learning journey less frustrating for inquisitive older learners.