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Social-Cultural Impact Essay

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SCI Project Smartphone-Workshop

***How technology can benefit seniors and solve problems relating
to the demographic change.***

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1 Introduction

Technological developments and advancements are happening continuously and rapidly in today's world. This creates problems, especially for older adults, as the ability to learn and understand new skills is decreasing with increasing age. This problem is facilitated by the fact that this kind of technology is new to seniors as nothing comparable was that available during their youth. How difficult it is for older people to gain understanding about smartphones and new technologies; in general, I had first seen when my grandpa decided to buy his first smartphone. He was not able to find external places or people that would teach him how to use the new device and explain relevant functions. The fact that a lot of situations expect people to be able to use smartphones motivated me to conduct the Smartphone-Workshop in cooperation with the MGH Oestrich-Winkel now for the third time to help elderly people to overcome the barriers in order to allow them to explore and use the benefits of technology in their day to day life. During my first workshop, I immediately heard from the participants that they encountered the same problems as my grandpa did. However more and more day-to-day activities require the use of technology in order to be carried out effectively and without further complication. This notably increased in times of the digitalisation when even more services like bank transactions require the use of digital devices. Ron and Mike Schneider elaborated on the demographic change and the problem this created for the provision of adequate care for elderly people. These demographic changes display a considerable challenge for our society as we have to integrate these people into the technological world as otherwise, they get more and more excluded. In this paper, I want to elaborate further on how to use technology and what changes need to be implemented to improve the lives of older people and therefore reduce the demand for care providers.

2 Main Part

A promising use of technology for elderly people are smart home systems. A smart home aims to provide people with a comfortable, efficient and safe living environment by integrating devices, systems and services that use the Internet of Things (Li et al., 2018). These smart homes can allow older adults to reduce the burden of day to day activities. This improves the user's quality of life and especially allows older people to continue to live independently for a more extended period of time. By the use of sensors

and robots' tasks that would have to be carried out manually by the elderly people or care providers can be automated, which streamlines activities. Smartphone applications mostly control these interconnected systems. One example is a hovering robot that can hover your home fully automated. In theory, this has various advantages as your home gets cleaned while you are not at home and can focus on different things or do not require professional assistance. However, as older adults often do not trust and understand the technology, they use it in the wrong way and overcomplicate the process. This can lead to situations where the use of technology requires even more effort compared to the traditional manual method. I experience this with my grandparents when I observe their use of technology and in particular their hovering robot. However, some stories from workshop participants outlined this problem as well and supported my impression. Sensors which are integrated into some devices can create more advantages. If sensors are used to collect information, for example, about food supplies and automatically reorder products, another task, which was previously carried out by care providers or family members, could be replaced by the use of technology. However, one of the most relevant aspects of smart home technologies is the possibility of improved healthcare options. It is possible to give people smartwatches that measure vital values and therefore, can immediately contact emergency services or family members if values are worryingly high or low. This has many benefits for the elderly people themselves, but also for the family members and care providers as they know when immediate action is required. This again reduces the need for scheduled visits, and the system can be demand-based, which in turn reduces the overall required visits and therefore can reduce the shortage of nursing staff.

To further improve the security and safety for people around the house, some systems use sensors to monitor the activities that happen in the house and henceforth can identify any unusual conditions. These systems can be connected to smartwatches, and henceforth can combine various data sources to identify critical situations. If a dangerous situation is identified, the system can inform emergency services automatically. People can, therefore, be rescued even if the user is incapable of making an emergency call. (Chan, Campo, Es-tève & Fourniols, 2009). For these smart home systems to be successful, the end-user should be included in the development of the product and the underlying software so the utilities can be specifically adapted to the individual end-user (Ali, Augusto & Windridge, 2019). If this integration is possible elderly people are also more likely to understand how to operate and trust the system as they have been able to see and

influence the development process. All of these smart home systems profit from automated machine learning and henceforth they are continually improving over time and adapt more to the specific end-user. Artificial intelligence can be used by the system to study the activities of users and use this data to predict future actions. The system, therefore, can adapt independently to the current situations and increase the benefit for the users significantly (Mihalache, 2017).

3 Conclusion

In my opinion, the smartphone is still the centrepiece of equipment, and the ability to use it correctly is elementary in order to access most smart home technologies. This supports the importance of smartphone workshops for older people as it is the entrance card into the technological world. However, smartphone workshops on their own are not sufficient as seniors need to establish an interconnected system, to achieve the most benefits out of technology, which is mostly not possible to be achieved by themselves. But as previously mentioned one of the main problems is the lack of understanding and henceforth the lack of trust in technology in general from elderly people. In some cases, this can lead to technology being more harmful than beneficial to the users. From my experiences during the workshop, it is especially important that companies focus on a more detailed and practical explanation of the functions of devices and offer services that provide a proper installation of the devices as this is often the most challenging part and was mentioned by some participants. In addition, there should be a governmental focus on the provision of workshops that explain useful technologies for older adults and how to operate them. These workshops can connect elderly people and technology on a new level and establish the needed trust and understanding. For me, this workshop and especially the personal and written feedback showed me the significant impact such an event has on the participants, which motivates me to improve and continue the workshop. Personally, I was able to improve my presentation skills further and could reduce my overall anxiety towards presenting and speaking in front of a group of people. However, I really enjoyed the exchange with the participants, which improved my communication and teaching skills. This happened especially during the one to one explanation at the tables or conversations during break time. For my future career, I perceive it highly relevant always to consider situations from different viewpoints. Projects like these allow me to further

connect with other people that have entirely different expectations and therefore improve my decision making to be more balanced.

4 References

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