# THE TECHNOLOGY OPPORTUNITIES IN EVERYDAY LIFE FOR THE ELDERLY

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**Abstract**

*Rapidly developing technology is changing the nature of work, the form and scope of both mass and interpersonal communications, the goals and settings of education and leisure activities, and most aspects of everyday life. Technology has the potential to make life easier, to support communication with family and friends , to assist with health care, and to enable individuals to remain safe and functionally independent in their own homes.*

*Increasingly , many older people live alone. Successful independent living requires older adults to be capable of performing basiz activities of daily living such as bathing, toileting,  and eating ,as well as more instrumental activities of daily living such as managing a medication regimen , maintaining the household , and preparing nutritious meals. Existence as an independently living, active older adult may also require willingness to accept new changes and to engage in lifelong learning. While it is true that older adults are slower to adopt many new technologies and typically require more training to learn to use them.*

*To integration of technology for the elderly; the technological design of products should be ensured according to the capabilities of the elderly. For the elderly appropriate training must be provided , elderly users' needs should be taken into consideration in the development of future technologies.*

**Key Words:** *Elderly, Technology Usage, Technology Opportunities*

**JEL Classification: 030**

## 1. INTRODUCTION

Recently, technology and its effect on the elderly has become an expanding research area among social scientists, marketers and designers. One of the main reason for this interest is to ensure using technology of elderly for living independently of them, as well as world's growing elderly population and becoming an important group as a consumer (Hazer and Kılınç,2009 : 83).

Technology  has the potential to make life easier, to support communication with family and friends, to assist with health care , and to enable individuals to remain safe and functionally independent in their own homes ( Rogers, Mayhom and Fisk, 2004:3). Scarcely an area of human life, including the most intimate relations, is not permeated, regulated, controlled, or mediated by technology. Today several domains would in many respects be impossible without technology.

Communication, mobility, keeping house, and leisure time are no longer conveciable in Western industrialized societies   without significant technological support (Mollenkopf, 2004:54). In Western industrial societies, this means that technology is becoming an ever more crucial "environment" for aging and the aged ( Meyer and Mollenkopf, 2003:149). In developing societies, capabilities of elderly and the speed of technological development and possibilities can not be parallel. Elderly individuals who can not reach  this speed of development or can not be met their needs from time to time can not keep up with modern times. This case also threaten some requirements of elderly individuals such as safety, respect, love, belonging and recognition (Öz,2002:18;Akdemir,Çınar and Görgülü,2007:216). So, it is important to ensure that general technology products are usable by this age group as well as to develop products specifically targeting the older population (Eisma at al,2003: 1).

This paper's aim is to inform about technology usage of elderly individuals, technological developments and their opportunities for elderly.

## 1.1. Mythology of Older Adults and Technology Use

"Older adults prefer to do things the old fashioned way ." You can not teach teach an old dog new tricks." New technologies are for the young. " While it is true that older adults are slower to adopt many new technologies , and typically require more training to learn to use them , these myths older adults and new technologies are greatly overstated.

Here are some of the facts about use of technology by older adults :

- 40% of people over age 65 use computers.

- 35% of people over age 65 access the Internet.

- 90% of older adults own a microwave oven , 80% own videocassette recorders, and %60 cordless phones and answering machines.

While this statistics reflect the willingness of only American older adults to adopt new technology, it is important to realize that older adults in nations around the world are making similar decisions ( Rogers, Mayhom and Fisk, 2004:3).  The National Aging Information Center (2002) recently reported several statistics that highlight  the growth of technology usage by older adults in several countries .For instance, Australian seniors are the largest growing segment of online banking service users, totaling over 775.000 ( Rogers, Mayhom and Fisk, 2004:4). The number of senior Internet users in the United Kingdom recently surpassed 2 million, accounting for approximately 13% of that nation's online population. Sweden and Denmark, however, boast the highest percentage of their respective national Internet user populations. The percentage of Canadian seniors using the Internet and computers has also steadily increased over the last decade (Wendy, Christopher and Arthur, 2004: 5).

These data clearly indicate that many older adults in developed nations have daily interactions with technology. In fact, the rate of technology development in society is making it difficult for them to avoid it. Most businesses today do not have a person answering the telephone; instead they have an automated telephone menu. The library has an online search system rather than a card catalog. At a grocery store you are expected to scan your own credit card , and in some stores scan your own groceries (Wendy, Christopher and Arthur, 2004: 5).

## 2. OPPORTUNITIES OF TECHNOLOLOGY FOR EVERYDAY LIFE IN OLD AGE

Technical products offer a multitude of positive opportunities for the preservation of independence, mobility, and social participation, as well as for supporting people in need of care (Mollenkopf and Fozard, 2003:253).

### 2.1. Information and Communication Technology

With the help of technical communications equipment, such as the traditional telephone or cell phones, it is possible to ensure that a connection  to the important people in one's life can be established  at all times, over long distances and despite limited physically mobility (Mollenkopf and Fozard, 2003:253).

New information and communication technology (ICT)  devices  and systems, such as interactive models of video communication and e mail. Internet access, multimedia, and information services can open up a number of communication possibilities to older people as well. They enable interactive  and horizontal communication without having to overcome spatial barriers, thereby strengthening the social contacts one already has , creating new ones, and providing opportunities to learn about issues of interest for older persons who are home bound. Technology can protect single living or sensory- and mobility – impaired elders from severe isolation. Safety alarm systems provide the assurance that help can be obtained quickly in an emergency, and in case of special impairments, speech computers  and electronic reading aids serve to compensate for seeing and hearing handicaps (Mollenkopf and Fozard, 2003:254).

Information technology (IT) has the potential to play a major role in assisting older people to take part more fully in life. What this technology does very well is to transform very small physical movements into powerful effects. It acts as an amplifier of human abilities. A robot can amplify human physical abilities, and information technology can amplify our ability to communicate and create (Arm , Gregor and Newell, 2002:2).

There are clearly a number of special ways in which IT could be developed which would be of great benefit now to older people:

Communication and social connectivity

With the breaking up of extended family networks which live physically close to each other, loneliness and social isolation are increasing problems faced by many older people and their families. Current technology such as email and video-telephony can help to bridge this communication gap. The development of more ambitious forms of communication and contact at a distance will further help to keep older people in touch with families and friends (Arm , Gregor and Newell, 2002:2).

Access to information and services

Being able to shop and access services from home is clearly an advantage for people who have difficulty getting out. If such services are to be in general use by older people they will have to be made easy to use by a generation who have not been brought up with computers. With such a widening of their functionality, a large new market could open up for providers of goods and services (Arm , Gregor and Newell, 2002:2).

Promoting lifelong learning

The development of computer-delivered education and training could benefit older people who desire to keep their minds active. In addition to the direct educational benefit and enjoyment, taking on new learning challenges is believed to be one way of keeping mental faculties preserved (Arm , Gregor and Newell, 2002:2).

Telecare and telemedicine

The increasing cost of medical care for a population which is growing older is an important concern. It is possible that providing remote access to a range of services could help to alleviate this problem, and could play a part in encouraging a self-help approach to keeping healthy (Arm, Gregor and Newell, 2002:2).

Remaining economically active and productive

An economic concern about the aging population is that a large number of retired people must be supported by a shrinking number of working taxpayers. One solution for this is to allow and encourage people to remain economically active beyond the usual retirement age. IT offers possibilities for older people to accomplish this more easily, through opening up new information handling job opportunities and allowing people to work from home (Arm , Gregor and Newell, 2002:2).

## 2.2. Household Technology

In the domestic environment, appropriate household technology can reduce physical hardship and thus make dealing with tiresome tasks easier, particularly for persons with failing  strength who face a steady increase in problems with everyday demands. An increasing number of products are being developed favored by concepts of optimal user- friendliness and barrier – free design. Altough these products are interesting to users from all age groups, they are particularly significant to older people with sensory of motor limitations due to high degree of operational comfort and safety they offer (Mollenkopf and Fozard, 2003:253).

The enormous potential of new "intelligent" or "smart" home technologies could also prove particularly useful with regards to aging individuals. They afford nearly unlimited possibilities by the integration of systems and the process of automation. ”Smart Home” or “ home of automation” refers to safety and security issues, living comfort, and technologies that, via internal computer networking technologies in the field of ICT can offer the aging user a great variety of potential services , e.g., telemedicine, telecare , teleshopping, video on demand, consulting  via monitor, and education or entertainment  services (Mollenkopf and Fozard, 2003:257).

Older persons tended to expect more from this kind of technology than younger persons did, which was a rather surprising find. Older people imagined that the Smart Home would simplify their everyday lives, would improve and expand their access to information and communication resources, and make their environments more fun. These expectations could be the result of greater need for such assistance, but might also arise from their relative inexperience with modern ICT- a situation that might change with future cohorts of older people (Mollenkopf and Fozard, 2003:257).

## 2.3. Transport Technologies and Mobility Aids

The mobility of elderly people is supported by various technical means of transportation, such as private cars, busses, and trains from the regional mass transport authorities, as well as by mobility aids that were developed for special function losses. The private automobile plays an ever – greater  role in this because the proportion of older drivers will clearly rise in the future . The statistics are increasing particularly rapidly among women, slowly diminishing the current gender gap. For the coming generations of elderly men and women, driving a car will be a natural part of their everyday life experience . Older adults with an impaired ability to walk, especially those living in rural areas and suburbs with reduced local public transport services, are frequently in need of a private car to deal with daily demands (Mollenkopf and Fozard, 2003:257).

Over the next few years, significant advances can be expected in the use of technology in early detection and intervention in age- related diseases and functional decline (Mollenkopf and Fozard, 2003:257).

## 3. CONCLUSION

Obviously, technological developments in the past century have made fundamental improvements in many areas of our lives. However, with such improvements has come a reliance on technology (Rogers and Fisk: 1).

Recently, focus has been on user- friendly technological design, especially related to the competencies, ergonomic context, and needs of old people, and on the acceptance and use of modern technologies and integrated systems (Mollenkopf, 2004:56). The potential of virtual reality for enhanching the endeavors of older persons has not yet received significant research and development efforts (Mollenkopf and Fozard, 2003:259).

The role of technology to enhance the quality of life of older persons in artistic self expression, education, and leisure has  received little research attention, a situation that should change over the next few years (Mollenkopf and Fozard, 2003:253).

In Turkey, there are a lot of information and research requirements about technological developments and their effects on quality of life for individuals with special needs  such as elderly and disabled(Hazer and Kılınç, 2009: 91).

We need to explore the opportunities and challenges of information and communication technologies  as a tool to support older people in their daily life (Pfeil, 2007:3).  We must ensure that systems  are designed with the capabilities and limitations of the older user in mind, proper training is provided, and the needs of users are considered in the development of future technologies (Rogers and Fisk, 2003: 1).

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