SOCIAL RELATIONSHIPS AS A MOVER TOWARDS DEVELOPING SKILLS IN ICT/SMART TECHNOLOGIES WITH ELDERLY PEOPLE

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Abstract

The article deals with the research conducted within the elderly people of the Municipality of Hradec Kralove, Czech Republic. The research is a study of ways the elderly reach and develop their IT skills, particularly how social relationships work as movers within this process. The method was a questionnaire distributed to the research sample of 432 respondents – participants in educational courses held by the Municipality of Hradec Kralove and University of the Third Age.

Introduction

Apart from others, the current society is characterized by two important features: (a) weakening of social relations and (b) modern technologies penetrating all spheres of (human) life. Numerous authors have mentioned the former features since 1990 (e.g., Martire, Schulz, Mittelmark, & Newsom, 1999; Shaw, Krause, Liang, & Bennett, 2007; van Tilburg, Aartsen, & Knipscheer, 2000, etc.). The latter characteristics appeared step by step during the last decade, as discussed by, e.g., Ogilvy and Shanghai (2004) and the European Parliament (2015), etc.

If elderly people are under focus, the problem is even more appealing for various reasons. Therefore, this paper aims at presenting results of the research, the main objective of which was to discover ways elderly people acquire work with modern devices and technologies.

Theoretical Background

Having worked during one's whole life, the worker becomes a retired person one day. This fact brings substantial changes into the life, both in the personal and professional areas. The professional career is suddenly or step-by-step closed; in the personal field, social and/or health problems may appear. In the current time of e-society, where latest (smart) technologies play an important role, the disruption or breaking of (often) lifelong relationships is even a more important factor.

The group of retired people, often also called the elderly (which sounds irrational in some cases) has been defined by numerous authors, and various criteria have been applied. As stated by the World Health Organization (WHO), in most developed western European and northern American countries the chronological age of 65 years has been accepted as a definition

of the 'elderly' or older person. However, it does not adapt well to e.g., Africa, southern America or eastern Asia. Whereas this definition may seem arbitrary to some extent, in fact it relates to the age at which the person begins to receive pension benefits. Now, the standard numerical criterion agreed on by the United Nations is 60+ years to refer to the older population. On the other hand, although there exist widely accepted definitions of old age, there is no general agreement on the age at which a person becomes old. The calendar age assumes equivalence with biological age. Yet at the same time, these two are not necessarily synonymous. Various approaches have been applied. However, they differ substantially, e. g., in 1875 in Britain it meant any age after 50. Yet pension schemes mostly used age 60 or 65 years for eligibility of old age (Roebuck, 1979). Lacking an accepted and acceptable definition, in many instances the age at which a person became eligible for statutory and occupational retirement pensions is at 60 and 65 years (Thane, 1978).

Moreover, adding to the difficulty of establishing a definition, actual birth dates are quite often unknown because many individuals in Africa, southern America, and eastern Asia do not have an official record of their birth date.

> The ageing process is of course a biological reality which has its own dynamic, largely beyond human control. However, it is also subject to the constructions through which each society makes sense of old age. … In many parts of the developing world, chronological time has little or no importance in the meaning of old age. Other socially constructed meanings of age are more significant such as the roles assigned to older people; in some cases it is the loss of roles accompanying physical decline which is significant in defining old age. Thus, in contrast to the chronological milestones which mark life stages in the developed world, old age in many developing countries is seen to begin at the point when active contribution is no longer possible. (Gorman, 1999)

Within this research, the definition of elderly people follows the cultural environment of central Europe. The elderly are defined as those who have not been active in the working process any more (i.e., they have retired) and draw the old age pension. Even though the retirement age is generally higher, and in recent years it is growing, as mentioned above, in the Czech Republic it used to start at the age of 55 years. Thus, the research group starts at this age.

Whether they can have the same quality of life in this new period is one of the fears of newly retired people, i.e., those who became the elderly when referring to the above presented definitions. The *same* often does not mean *identical* but *not lower* quality. In practice, it means the elderly people are afraid of loss of social contacts, becoming lonely, reaching worse (lower) financial affordances, and, last but not least, not being able to acquire/hold all the technical/technological competences that are/will be necessary for living in the e-society. Therefore, the social relationships are so important for the new life, either in the family, with friends, or in both areas.

From this point of view, this research is expected to discover crucial findings that can help the elderly people to cope with the new life and spend this period fruitfully, without frustration.

Research Objectives

The main objective of this research is to discover how elderly people acquire the latest devices and technologies, particularly what the ways are through which they learn to explore the devices and technologies.

Method

The method used was a questionnaire to focus on selected fields of elderly people´s exploitation of smart or non-smart devices and technologies. The questionnaire included twelve items – questions through which data on respondents were collected (questions 1 – 3) and respondents´ opinions of and answers to related topics were monitored (questions 4 – 12). The feedback was provided in the open answer format, multiple-choice format with one, four or all choices and in dichotomy format (Yes/No). The respondents filled in the printed questionnaire by handwriting immediately on the site, as described below.

Research Sample

The data collected by the questionnaire were processed by the IBM SPSS Statistics software. In total, 432 questionnaires were administered. At the beginning of the process, questionnaires were provided to 437 respondents: five questionnaires were not included in the final amount. Questionnaires that were not fully completed, were considered in two ways. If questions 1 – 3 were answered and only one answer to questions 4 – 12 was missing, it was replaced by the group mean value. In other cases, if more answers were missing, the questionnaire was not included in the research sample.

The questionnaires were distributed within two groups: (a) participants of University of the Third Age courses (U3V) and (b) those in Municipality of Hradec Kralove (MHK) courses. This approach means that only those elderly people who had been interested in self-education were included in the research sample. Reflecting on this, it means the sample is not representative but is a convenience sample – it is limited to (a) active-in-education respondents, (b) dwelling in Hradec Kralove region. The authors are aware of the fact of the limited sample. The research results will be exploited for the purpose of the pilot study towards further research within a representative sample of elderly people in the Czech Republic.

The research sample was considered under three criteria: respondent´s age, age/gender structure and level of education. The sample consisted of 27 % of male and 73 % of female respondents, i.e., 115 men and 317 women. The distribution follows the demographic curve of the Czech population of this age group [10]. Within a detailed analysis of the research sample we can see that the oldest respondents were 87+ years old, the larger number of respondents was born in 1945-49 (32 %), i.e., they were 67 – 71 years old.

From the age/gender structure, the 15 oldest respondents were 85+ years old (12 female and 3 male respondents), and most respondents were of female gender in the 1942-51 age group (n=188), i.e., 65 – 74 years old (Figure 1).
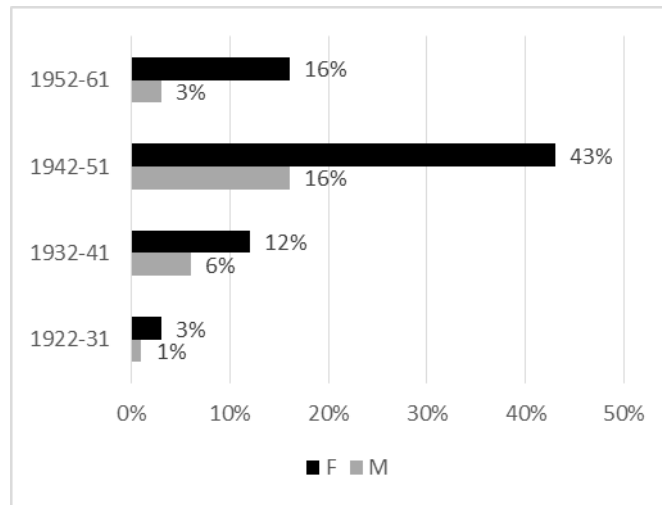

Figure. 1. Respondents: age/gender structure.

This distribution also follows the demographic structure of the Czech Republic (Czech Statistical Office, 2016).

Level of education reached by the respondents was structured into three groups: vocational (i.e., three-year upper level secondary education without school leaving examination, mostly required for working class and crafts professions--13 %, 55 respondents), upper secondary (i.e., four-year education graduating with school leaving examination) and tertiary (i.e., university, higher --21 %, 91 respondents) education. Most respondents reached the upper secondary level of education (66 %, 287 respondents).

Research Results

The collected data show that most respondents own and explore mobile phones (383 respondents; 89 %), followed by PC owners (217; 50 %) and notebook owners (167; 39 %): 59 respondents own smartphones (14 %) and 45 are tablet owners (9 %). Two respondents do not possess any device.

When answering the question what the ways and approaches were which lead to acquiring the competences on how exploit the modern devices and latest technologies, the following movers were detected:

- Self-learning (i.e., respondents acquired the competence by autonomous learning).
- Other people helped them (their children, grandchildren, friends).
- They attended IT courses.

As displayed in Figure 2, most respondents attended IT courses (193; 26 %) where they learned how to use modern devices, PC, notebook, and related (smart) technologies. Authors are aware of the fact the data were (among others) collected also from attendees of these courses, which explains the high

appearance of this criterion. However, the role of family members is also important because children and grandchildren helped them substantially (children: 183; 24 %; grandchildren: 78; 10 %). Reflecting the social relationships of the elderly people, friends also played the role of movers in this process, as 131 respondents (17 %) declared them to be those who helped them within the process of acquiring the IT competence (see Figure 2).
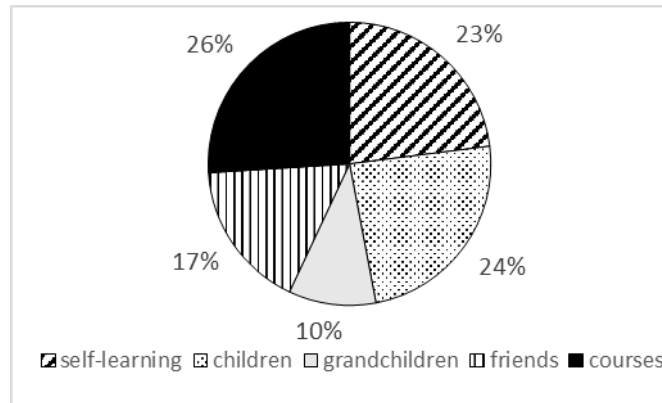

Figure 2. Movers to the process of acquiring the IT competence.

The detailed insight in the structure of movers shows that the friends who supported them were mostly younger than the respondent (83; 63 %). However, friends of the same age also played an important role (42; 32 %) and even older ones helped in some cases (6; 5 %) (see Figure 3).
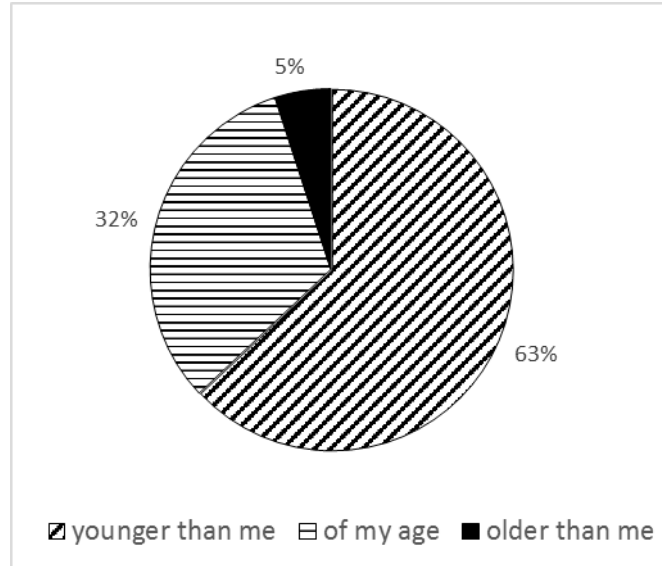

Figure 3. Movers to the process of acquiring the IT competence: respondents' friends.

As mentioned above, IT courses performed the role of strong mover towards the IT competence. They differed from the view of learning content and the organizer. Most respondents (101; 23 %) attended the introductory courses, which focused on basic work with the computer/notebook and the Internet. Several of them continued with the complex courses, which dealt with e-mailing, skyping, participating in discussions, reading/writing blogs, etc. (20

respondents; 10 %), and/or they attended advanced courses, where they learned how to explore MS Excel, PowerPoint, etc. (12; 3 %). A small group of respondents attended the course dealing with digital photographs (Figure 4).
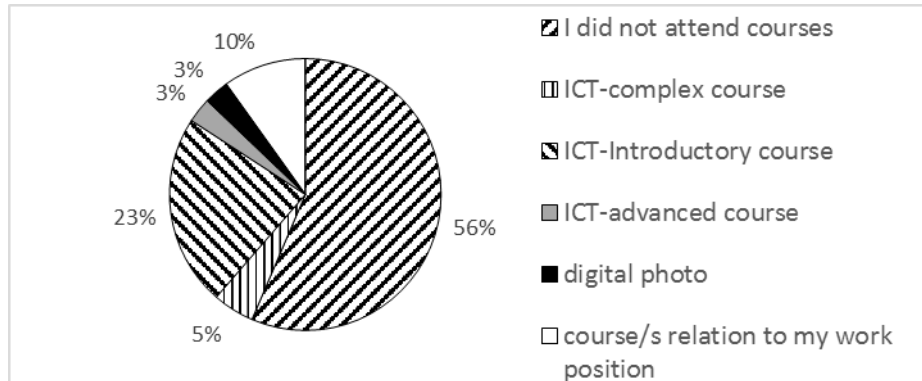

Figure 4. IT courses: content.

The IT courses were held either by the Municipality of Hradec Kralove (123 respondents; 29 %, free of charge), or by the University of the Third Age (22 respondents; 5 %, paid courses). Some respondent also mentioned IT courses held and paid for by their last employer (42 respondents; 10 %).

The length of the courses varied from several to tens of hours. Most courses took from 10 to 19 hours, usually taught two hours per week; these were attended by 14 % of respondents. Some courses were much longer (from 20 to 99 hours; 9 % of respondents).

The efforts of elderly people resulted in the fact that after successful graduation from the courses, self-learning, consultations with family members and friends, they are able to work with modern IT and smart devices. Most of them exploit them daily (53 %), the others once or several times per week (7 %; 4 %; 11 %), or less frequently (9 %; 4 %). This question was not answered by 12 % of respondents; their answers could not be replaced by the group mean (Figure 5).
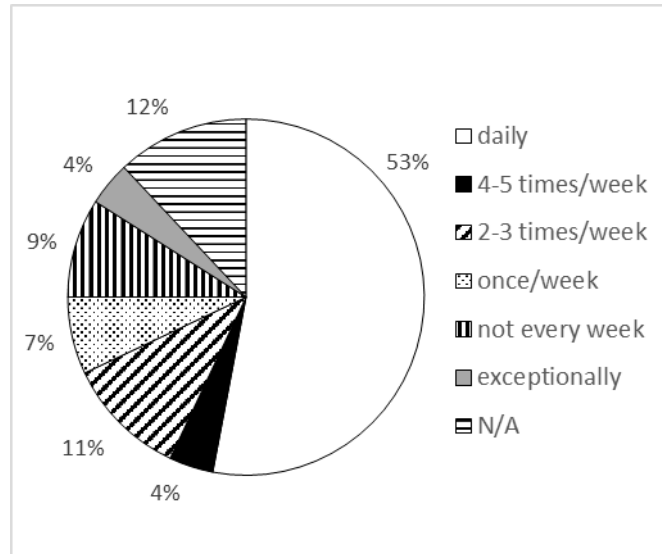
Figure 5. Frequency of working with devices.

Conclusions, Discussions

From the results presented above it is clearly seen that the elderly people have been working hard to develop their IT competence. Their reasons are either identical to many of them, or vary. The list of activities running on IT/smart devices is displayed below:

- e-mailing with not only friends and family members, as expected, but also with institutions (314 respondents; 73 %)
- e-banking (172; 40 %)
- sharing photos (166; 38 %)
- skyping (165; 38 %)
- writing documents (164; 38 %)
- e-shopping (145; 34 %)
- information on health (144; 33 %)
- reading newspaper (108; 25 %)
- gaming (67; 16 %)
- designing presentations (34; 8 %)
- discussions, or blogs, active participation (12; 3 %)

As being in contact with other people belongs to human features, a gratifying correlation was discovered within this research – under the conditions of e-society, which is often considered to be destroying face-to-face contacts and communication, the elderly people´s skills in using IT/smart tools and technologies are being developed with the support and help of family, friends and through face-to-face courses. These results are consistent with those of other authors (e.g., Bujnowska-Fedak & Pigorowicz, 2014; Eneanya et al., 2016; Grigoryeva, Dmitrieva, & Vdovenko, 2015; Liyanagunawardena & Williams, 2016; Modad, Encinas, & Arriaga, 2015).

Reflecting on these works it can be concluded that the quality of life of elderly people, both from the view of social contacts and health state, can be supported through the ICT/smart devices and technologies.

Acknowledgement

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