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Skype as a means of integrating older people in long-term care: An action research

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ABSTRACT

This research disproved the social prejudice that elderly persons in need of care, with deteriorating functions and a poor state of health are incapable of acquiring the skills needed for modern technology. The model action programme has proved that even very elderly, sick persons in need of nursing are capable of learning to use Skype, something entirely foreign to them, if they have the motivation and are given sufficient help. In addition, Skype acts as a catalyst, leading to a higher level in the learning process; successful learning arouses the curiosity of the elderly about new forms of infocommunications and the internet. By learning to use the internet they can acquire new knowledge and keep themselves busy.

Keywords: online communication, elderly people, social care, distant compassions

The role played by technology in eldercare was already the subject of research projects in the early 1990s (COST A5), and these made it possible to elaborate model programmes in Eastern Europe and integrate them (e.g. Zivot 90 in the Czech Republic, the alarm system in Hungary). As a consequence of the strong ageing trend, infocommunications technology helping the life of the elderly has appeared in EU policy on the elderly (ICT & Ageing, www.ict-ageing.eu). The EU places special emphasis on development projects based on modern technology (AAL-JP programmes), on research related to eldercare and ICT (Mollenkopf et al., 2010), and on research regarding the carers (CARICT, 2011). In Canada and the United States too, the connection between eldercare and technology is a key research area (Marziali, 2004, 2005; Chiu et al., 2009). One of the most important questions in such investigations concerns effectiveness. The innovation

studies supported by the EU seek effectiveness indicators, figures that can be translated into fiscal terms, wishing to demonstrate the cost-savings effect. At the same time, it is difficult to express in figures “young” or innovative solutions still at model level, to produce tangible proof. The goal to be attained, preventing the social exclusion of the elderly through the use of technical innovation, cannot always be shown by quantitative means because of the novelty of the solution. The Skype Care intervention research presented here ended in 2011 and its effectiveness is difficult to measure statistically or financially, but even without figures its results are already instructive and striking, the experiences can be easily adapted and applied in practice. The findings of the action research are especially important in the light of the infocommunications skills of the Hungarian elderly.

There is an extremely wide gap between the infocommunications skills of the 55-74 years age group in the countries of Northern Europe and those of Southern and Eastern Europe (Tošnerová–Zvoničková, 2006).¹ The figures for Hungary are very poor: despite the improving trend the level of infocommunications skills of the elderly is still very low. In 2007 10% of those aged 65-74 years used a computer, in 2008 this figure was 20% but barely more than 5% used the internet (KSH, 2009a, 2009b: 55, 58). Numerous programmes designed to help healthy elderly persons learn to use the internet, such as *Kattints rá nagyfi* (Click on it Granny!) and *Folytassa nagyfi* (Carry on Granny) are bringing improvement. As a result, elder persons already using the internet had the same level of internet skills as young people, they are catching up to them (KSH 2009b: 60).

However, the majority of those receiving care of some kind, especially long-term home care, have no experience with computers or the internet. Consequently, they are not familiar with Skype either, as a form of communication serving as a substitute for personal meeting. The basic hypothesis of the research was that if use of an infocommunications means that is already widespread among young people were to be incorporated into the life of older persons requiring long-term care, who feel lonely, or are depressed their activity and customs would change and their daily time schedule would be different. At the same time family carers would be supported as the increasing activity of older people would ease their care burden too. By keeping in touch via Skype the earlier network of contacts of older people could be maintained or even expanded. The difference between the generations in infocommunications skills could be reduced, and as a result the elderly would feel less isolated despite their poor health. Their passivity caused by the need to rely on others, lack of mobility, lack of purpose and isolation could be transformed into activity. In this way, by rectifying their lack of infocommunications skills they will be capable of preventing their own social exclusion.

INITIAL DIFFICULTIES OF THE RESEARCH

The seemingly simple task of obtaining computers for those in the intended sample came up against major difficulties. No research funds were available and the prejudice in society made it almost impossible to find other sources: people are convinced that

a digitally illiterate, elderly and sick person receiving care is incapable of learning to use a computer, as many elderly people even have problems with mobile phones. Because of this prejudice, companies with a stock of computers and a sponsoring budget thought the idea was ridiculous and would not support an experiment with a doubtful outcome, especially one that they considered held no prospect of being able to win a new consumer segment. Without funding, state institutions had to be ruled out. Finally a small firm sensitive to the problems of the elderly, and the Hungarian Charity Service of the Order of Malta (that had previously directed numerous model programmes) undertook to procure the computers. Then another difficulty arose: the costs of internet connections. The big internet service provider and potential sponsors rejected a request for a one-year internet subscription (for the duration of the programme), although the sample comprised only 15 persons and the monthly subscription fee would have been very small. In the end the problem was solved: the Hungarian Charity Service of the Order of Malta made its mobile internet connection available. After these difficulties that lasted for a year and a half, the action research planned to run for one year began in December 2010 (in Budapest) and January 2011 (in the county seat).²

SAMPLE, PLACE

The criteria of the sample were: elderly recipients of home help/care

- receiving mental care (conversation) and/or physical care (personal hygiene, basic nursing, shopping, medication, delivering or giving food, handling administrative affairs, etc.);
- having limited outdoor mobility;
- having family members, family carers;
- suffering loneliness and/or depression. Out of the sample of 15 persons *two older* persons had made earlier *suicide attempts* (once or more times), and one was an alcoholic;
- no computer skills. This was considered as an important condition.

The sample included one person who became a care-recipient as a result of caring for his wife. The research was carried out in the Hungarian capital (Budapest, ten persons, home care/help recipients with emergency alarm service provided by in the Hungarian Charity Service of the Order of Malta) and in a county seat (Székesfehérvár, five persons of the home help/care centre provided by the local government). The average age was 82 years, the majority of participants were women. The sample included two former blue-collar male workers (miner/boilerman, TV repairer), the others were white-collar workers (with secondary or tertiary schooling). The elderly persons used the mobile phone for brief contact but this did not satisfy their “conversation” need.

METHOD

The heads of the care centre open-minded to innovation played an active part in the preparation and throughout the entire research. They helped to select the sample as they knew the personalities of the care recipients, their physical and mental problems, behaviour, social and family circumstances, their interpersonal network of contacts and their attitudes towards technology.

The *observation* made during the installation on the spot and the *conversation at the time with the elderly person* was of fundamental importance for later comparison. The systems manager or his deputy, the head of the care centre, as well as a carer and the researcher who elaborated the programme were present when the computers were set up. The summaries drawn up on the basis of the experiences of the technicians, the carers, the head of the care centre and the researcher made it possible to judge the initial attitude of the elderly person towards technology, what the person expects from the programme, how he or she receives it, who they would like to be in contact with on Skype and why.

Intensive observation followed in the first week, the carers made note of the problems, and the systems managers found solutions to the difficulties signalled by the carers. Parallel with this the carers observed the elderly persons' behaviour, recorded when they used Skype, for how long, with whom, what contacts they had, and the extent of change in their mood, daily schedule and activity. These notes were passed on to the heads of the care centre and they made a weekly report to the heads on their experiences. The researcher managing the programme conducted *depth interviews* with them, at first weekly, then every two or three weeks and finally monthly. In addition, the heads of the care centres signalled every event, or departure from customary behaviour they thought to be important. In the fourth month of the research a number of social work students at a university college joined in the work. Their task was to analyse the impact of Skype on the basis of a conversation touching on set points with the elderly person and the carer and their own observation, but they were intentionally not given any preliminary information on the earlier care problems (e.g. that a person had earlier received care for depression). In Székesfehérvár the PCs were installed before Christmas, from December 16th because it was anticipated that the family would have time during the holidays to help the elderly persons.

From the fourth month of the research we also involved secondary school students in the research. They were given the task – with the intention of intervention – of helping the elderly persons and reporting on their difficulties and progress.

County Seat

Before the computers were installed the elderly persons went through successive waves of emotions:

1. *amazement* (that they were getting a computer)
2. *interest*
3. *disclaiming* “*I’m too old for that, that’s for the young*”
4. *a great degree of fear, alarm.*

The head of the care centre and the carers dispelled this last, negative emotion, *fear*, with reassuring talks, bringing up examples and explaining the benefits of the computer, setting off a wave of positive emotions.

1. *impatience* “*When will I be getting it?*”
2. *excitement* “*What will it look like, how will I use it?*”
3. *joy* at reduction of the knowledge gap between generations. “*I’ll have one, just like my grandchild.*”... “*It will be good if I can use it.*”

The presence of the younger generation and help from them (at Christmas) made learning easier, they were able to practise together, several of them made a note of the instructions for use given by a child or grandchild.

“When he got the computer (before Christmas) one of his sons who is good at computers went over and did all the settings for him. He wrote down everything on a piece of paper for Uncle A.: how to turn it on, all the basic steps.” (social work student)

But the learning was more difficult if family members were unable to provide adequate help. One of these was an 88-year-old woman whose child and grandchildren lived in the United States; she became very uncertain but she did not give up her will to learn in the hope of being able to have contact with her grandchildren (carer’s observation).

She was not the only one with the desire and the will to learn, this was true for everyone in the sample.

“Uncle A. told us that he would never have learnt how to operate the PC without a strong will.” (social work student)

The loss of function and motor problems of the elderly also made use of the computer difficult. Most had difficulty using the mouse because of problems with their joints and because the icons were too small for their poor eyesight. One person even had difficulty switching on the computer. Technical solutions were found for some of the problems: the sensitivity of the mouse was reduced, the icons were made larger (30% bigger 1024×768 instead of the default 880×600), and solutions already in use in other countries were also suggested. The carers’ creative thinking also helped to adapt the PC

to their physical functions, making use easier, e.g. several minutes of warm-up hand exercises before using the mouse.

With the appearance of Skype a two-way, interactive connection began. At first, because of reluctance on the part of the elderly, it was used *solely* for communication with *family* members, for about an hour a day.

“I don’t want to talk to anyone else, just my son and my grandchildren.” (78-year-old man)

This raised the possibility that as Skype became important to the elderly person, it could with time become a burden for the family. However, the reality turned out to be precisely the opposite, for several reasons. The daily contact replaced the activity performed by the family member that had been at times tiring and in cases involved considerable costs, for example for travel; it gave the possibility for monitoring and communication without interrupting activities at home.

“Besides, I have to see whether everything is in order with my mother.”

The younger generation also joined in the communication; for those who spent a lot of time on the internet, writing email, chatting, using Skype, such contact was natural, not an onerous task.

“I am on Skype every day with my grandchildren too, sometimes I practically fall asleep at the PC because they could go on talking forever while I am tired, but I don’t mind.”

The “too” throws light on an important factor. A “division of conversation” developed within the family; several family members took part in the conversation in turn, freeing time for the family carer.

The video camera is important because it encouraged various forms of activity in the elderly. The 88-year-old woman who previously had hardly been able to get out of bed, did her hair and put on make-up before speaking with her grandchild in the US. The motivation was the same as in the case study that gave the idea for the research: feedback from family members was important for the elderly person.

“I can see my grandchildren all the time and they can see me.”

Similarly to the case study that encouraged us to begin the research, the elderly were once again able to become active participants in family life.

“My great-grandchild will be born soon and I can use the web camera too to show a lot of things, like things (hobby carpentry) I have made at home.” (78-year-old man)

This bilateral contact was soon replaced by an *expanding network of interpersonal contacts*.

“I look up old acquaintances to find out if they have a computer too.” (The 78-year-old man who at first rejected contact with others.)

“I looked up an old fishing friend, and I found him.” (84-year-old man)

They began *catching up to the younger generations*, the information gap between the generations was reduced and with it the emotional ties were also strengthened.

“Our contact is much better since I have my computer and use the internet. We finally have something to talk about that interests us both!” (78-year-old man)

The contact was characterised not only by feelings and Skype not only made it easier for the family to monitor and care for the elderly person. The reverse could also be true.

“I don’t worry so much (about them), because I can see them every day.”

The research also had many *unexpected results*, Skype acted as a *catalyst*. The sense of achievement gained with Skype encouraged the elderly people to learn to send email, chat, browse the web for topics of interest to them (e.g. fishing), and they continuously learnt something new. Learning to operate Skype gave them the skill base they needed to exploit other opportunities provided by the internet, encouraging them to acquire new knowledge. As a result they began a learning process and each obstacle overcome enabled them to advance to a higher level. In the fourth month of the action research the quicker learners had the same infocommunications skills as younger people.

“When we asked them about the computer, they immediately switched it on, went on Skype and checked to see who was online. I saw six people connected. Uncle A. tried to talk to one of his old friends while we were there, but for some reason the other person did not reply, so he said: »No one’s answering, let’s talk instead«. He told us that so far there are 300 family photos on the internet, and he stressed that they are there on his computer, and what a lot that is. He also said that he listens to a lot of music every day on the computer (his favourite is Zámbo Jimmy). He told us that he reads the news every day online. He has ordered a set of cards on use of the computer so that he can handle it even better.” (social work student)

The many multifunctional opportunities offered by the internet have also had a beneficial effect on their mental state. Dependency (alcoholism) caused by loneliness

has ended. The mild depression caused by caring for a wife with dementia (she could not be left alone so the husband was unable to go out) had not only disappeared by the fourth month of the action research, there had been a great improvement in his mood.

“Uncle A. has opened up like a rose.” (head of the care centre)

“Uncle A. seemed to be a well-balanced, confident, communicative, optimistic person with good empathy.” (social work student)

The conclusion drawn by two social work students on the basis of their conversation and observation is interesting because they did not know about the man’s earlier mental problems. They found an open, enquiring and optimistic personality indicating a process that had occurred within a *very short* space of time, only *four months*, during which the mental state of the mildly depressed elder person turned into the opposite. This positive change can be clearly linked to infocommunication and the internet.

“Uncle A. said that the computer is very good for him because he goes out very little and it gives him a little extra challenge, something to keep him busy, and he can talk with his family members and friends every day on Skype.” (social work student)

In the assessment of older people too, there was a positive change in the general mood and sense of well-being as well.

“She herself said that she feels much better since she has the computer. Because she could finally get in touch with her old friends and with her grandchild in Italy. It seemed to me that she was making an effort to learn to operate the computer as soon as possible!” (social work student)

The change is even more striking in the light of their initial state.

“The carer told us that the first time she mentioned to Uncle A. that there was a possibility for him to get a computer (and use it to talk to people), he at first refused.” (case study by social work student with carer)

INTERGENERATIONAL CONTACTS: THE OTHER POLE

The social work students drawing up the case study were not given the task of recording their own feelings, but they described their own enthusiasm. The elderly persons’ desire, will and efforts to learn was something the students had not expected and evoked an emotional response that they considered worth reporting.

“That day when my student partner and I visited Uncle A. in the morning, the meeting had a positive influence on our whole day because it was a very good feeling to talk with him; that conversation gave us a lot of energy.” (social work student)

The reference to “a lot of energy” was surprising even for the social work students although they are learning in theory and in practice how to deal with and help to relieve human and social problems. Social prejudice lies behind this surprise. Even among the young social work students there were some who doubted that the programme would be successful, they judged the action research as superfluous in view of the reduced functions and poor health of older people and in this respect their attitude was the same as that of the companies.

The Capital

Experiences here were the same as those in the county seat, but the positive effect of Skype was *even more striking* in the case of the elderly persons who had earlier *made suicide attempts*. In the unanimous opinion of the carers it was *depression caused by loneliness* that led to the *suicide attempts*.

The combination of loneliness and suicide is regarded as a problem of special importance in the EU. In its Summary Reflections 2010, the European Commission cites *loneliness, dependency and isolation among the causes of depression and in serious cases suicide among the elderly*. In the UK the rate of successful suicide attempts is the highest among the over 75 age group. In Hungary the rate per 100,000 persons in the age group concerned is 51.7 for men aged 60-64 years and 14.9 for women; 127.6 and 27.5 for those aged 80-84 years and 160.6 and 28.5 for persons over 85 (KSH, 2009b: 24, 26). The rate of suicide among the elderly rises with age and is much higher among men than among women. Although suicide has many causes, it seems likely that the shrinking network of personal contacts ranks high among them. There are no reliable figures on suicide attempts; the two attempts in the sample do not appear in the statistics and presumably carers following the lives of elderly persons and familiar with their mental state and personal sphere are aware of such attempts and also know their causes.

In the sample of 10 persons in Budapest the two suicide attempts in old age had been caused by passing or lasting depression resulting from loneliness and a lack of purpose in life. The recipients of care had greatly restricted activities and because of objective obstacles (children working, grandchildren studying, friends in distant places, etc.) they were unable to relieve their lasting or temporary loneliness with their otherwise extensive interpersonal connections. An 89-year-old man attempted suicide while the family was away for a short holiday.

“He wanted to commit suicide because he was overwhelmed by loneliness and depression, we found him by chance.” (head of the care centre)

In his case (too), the possibility of using Skype set off a process of infocommunications learning, it gave a feeling of success and encouraged further learning. This process activated him and transformed his daily activity. Skype and the internet together kept him occupied for 3-5 hours a day.

“*Since then his mood is well balanced and good.*” (head of the care centre)

The seriously ill woman (asthmatic) carefully planned her 15 suicide attempts (conducting electricity into the bath) and in addition constantly made alarm calls to the carers seeking urgent intervention. Because of her chronic mental problem and psychosomatic illnesses the general practitioner requested her forced admission to a closed institute, but the carers thought that such a permanent solution was not fortunate and instead accepted the additional burden of care.

Learning to use Skype strengthened her family ties (regular conversations with her two sons) and expanded her other interpersonal connections (regular chats with others). Using the skills she had acquired she began to explore the virtual world offered by the internet. The Google browser and visits to various websites gave her access again to leisure programmes that had been part of her life before she became ill: attendance at concerts, visits to museums and theatres. She made a conscious effort to end her loneliness by visiting dating sites. Apart from her main illness, her symptoms soon disappeared and she made no more suicide attempts, she became well balanced and addicted to the internet, often continuing to browse while the carers were present.

In the above cases the positive effect of Skype and the internet appeared within the very *short space of 1-2 months*, although at the beginning of the research there was doubt about the elderly persons who were *basically afraid of technology*. One old lady was afraid that the mouse would eat her food. Another was afraid that the computer virus would infect her and asked for immunisation (an injection). However their technological catching up was very rapid. One elderly person, for example, who did not dare even switch on the computer, by the fourth month was capable of doing what the bolder and more skilful do, only perhaps a little more slowly.

“*...she was the timid one, now she keeps in touch with five people on Skype, reads email messages and uses the Google browser like an expert.*” (head of the care centre)

An elderly woman with Parkinson’s disease also became extremely active and even got as far as *editing a newsletter*. Six months after the start the elderly participants in the programme regularly read the newspaper, watched television, films and photos, some of them went to church, one of them began research on her family roots. Their vocabulary has expanded with infocommunications terms: (a) with *entirely new expressions*: drive, surfing, wireless internet, keyboard, systems manager, email, chat, Facebook, website,

Google, browser, download, YouTube, virtual; (b) or with *existing words with a new infocommunications content*: mouse, window, library, virus. They have soon acquired the same knowledge and habits as the young (e.g. online shopping).

“You ask what information technology has given me. It has opened up the way to acquiring knowledge! The computer has brought great help and constant curiosity into my home. ...I am doing research on my family roots on the internet, tracing all the complicated paths from 1311 right up to the present. So far I have been able to put together a few detailed biographies. I will have something to pass on to my grandchildren. I conduct a lively correspondence with my family members and friends. We exchange photos and videos.” (76-year-old woman)

All this refutes the widely held prejudice about the ability of sick elderly persons to learn, especially anything related to infocommunications. Prejudice appeared at different levels.

1. family level

“Oh, I hadn’t thought of that, but if it could be done it would be good.” (daughter)

“The family didn’t believe that it would be worth giving an old person a computer.” (head of the care centre)

The quotations show the implicit or explicit prejudice of the family but these examples have not revealed how deeply this acceptance influences the behaviour of older people towards technology. While writing this paper a new action research has been launched (October 2012) and during the sample selection a crucial problem arose: many of the elderly selected and willing to take part in the research cancelled their participation because they were convinced by their families that it was superfluous.

2. the older young, intergenerational level

The “30-year-old boys” who set up the computers, based on the gap between their higher level of technical knowledge *and the lack of technical skills of the elderly* declared:

“I’d like to see what these old people are going to do with these computers: probably put a lace doyley on them, and a vase on that and then look at them.”

The same prejudice was reflected in the disbelief of social work students mentioned already.

3. societal level

In the light of these opinions, the earlier refusal of market firms and institutions to support the model programme cannot be regarded as deviant behaviour either.

Compute skills of persons aged 75+ do not appear in statistics either as it is believed such skills simply do not exist. The prejudice found in the family, even among the social work college students and the young men installing the computers reflects the existing prejudice in society.

0. level, older people themselves

The different levels of prejudice interact with each other and create a vicious circle. All these perceptions have a negative impact on frail older people and strengthen their belief in their own “inability to learn” anything and even more that the idea of acquiring a computer and learning to use the internet is ridiculous. Therefore this level should be considered as a basic one, 0. level.

If the lack of infocommunications skills in the elderly recipients of care had been accepted as unchangeable as suggested above, the action research would have been unsuccessful without the intervention and *help of regular volunteers*.

THE ROLE OF THE VOLUNTEERS

Increasing emphasis is being placed on volunteering in both national and EU policy. The most recent empirical studies have analysed the social role of volunteering along the factors of gender, age, level of schooling and satisfaction with the life career (McCloughan et al., 2011), and aimed to explore how elderly people prevent their own social exclusion through voluntary activity helping other old people (Ehlers et al., 2011). The first-mentioned research examined volunteering among persons over 18, while the second focused on those over 65 and 60. Youth in Action, a sub-programme of the European Voluntary Service, is directed at developing the competences and skills of 18-30-year-olds related to voluntary activity through informal training, and in exceptional cases also involves 16-17-year-olds (between 1996-2006 30,000 young people participated in the programmes, and the organisation aims to increase this by 10,000 a year from 2007-2013) (Kucharczyk et al., 2011: 6).

In contrast with this, young people aged 16 in formal education took part in the Skype Care model programme. For the practical voluntary activity that was part of the curriculum in a secondary school, the 16-year-old students could choose among various types of voluntary work and eight of them (grouped in two pairs) decided to give infocommunications help to elderly people. Besides giving this help they had to examine the problems of the elderly, assess their level of competence, their attitude towards technology and their mood. The volunteers visited the elderly persons in pairs and drew on each other’s impressions in making their notes. Here too, as in the case of the social work students, they did more than was expected of them in recording their own feelings.

Volunteer 1

“Aunt G.’s technical skills and problems: watches soap operas online, has difficulty using the keyboard, searches for her friends on international sites, searches for information, her use of the net is made difficult because of the keyboard. We will continue to visit her. Because we like to see the progress she is making.”

Volunteer 2

“We spent time on the internet with Aunt K. We browsed for things that she wanted to buy. We showed her how to look at the TV magazine on the net, but she wasn’t very good at it. She wanted to buy woollen yarn on the net but she has not succeeded yet. We will continue to visit her.”

Volunteer 3

“We taught Aunt K. to use the internet. She learnt to switch the PC on and off and to use the mouse, to visit port.hu, create an email account. I have a lot of other plans for her, which is why I would like to continue intensive voluntary work with Aunt K.”

Volunteer 4

“Aunt J. can switch on the PC, she can use Skype and search in the Google browser, her control of the mouse is uncertain but she is enthusiastic and uses it.”

Volunteer 5

“O. has made a lot of progress, it was worth helping her. She is very enthusiastic and attentive. She accepted everything we told her. She also took the advice we gave. It was a pleasure to work with her. We were able to help her a lot in using and handling the internet, the screen and the web camera.”

Volunteer 6

“She learnt to switch the PC on and off. She also learnt how to use Skype, to read and hear the news on the internet. We would like to stay in touch with her.”

Volunteers 7-8

“Uncle ... learnt to switch the computer on and off, he can listen to music, use Skype, call his daughter and others and read the news on the net. He worked out how to do a lot of things by himself. He learns easily. (He is 90!)”

Behind the positive feelings of the young volunteers we can see, expressed directly or indirectly, the pleasure they felt at the progress made by the elderly learners. As the student became teacher and the elderly person a “good student”, the difference in infocommunications skills between the two generations was reduced.

THE PROBLEMS OF THE ELDERLY, THEIR PROGRESS, THE RESULTS ACHIEVED

Overall, the findings with the 15-person sample can be summed up as follows.

- In a number of cases the teaching process began from the most basic level (switching the computer on and off).
- They learnt to use Skype very quickly.
- Learning the new functions related to the internet was the main problem.
- Through the internet they have found a way to satisfy a wide variety of desires and interests (from buying yarn to listening to music).
- There were typical difficulties (use of the keyboard).
- They all showed a strong desire to learn.
- The pace of learning differed, but they were all able to reach a similar level.
- Two factors in particular encouraged them: (a) they could again carry out activities with the help of the virtual world; (b) they had a much more colourful, wider range of leisure activity.
- New customs appeared in their lives (such as shopping on the net, watching soap operas online).
- They needed helpers, both to learn and to catch up.
- After a while the elements they learnt became permanent knowledge and the help was needed not to maintain that level and overcome the initial difficulties, but to reach the next level of knowledge.
- Volunteers helped them to move on to new levels; after mastering Skype they could also learn to use the internet.

CHANGE IN THE BEHAVIOUR OF THE YOUNG VOLUNTEERS

- Emotional plus based on positive feedback,
- with the result that they undertook to continue the voluntary activity.

In the fourth and fifth months of the intervention research there was a marked positive change in the quality of life of the elderly persons. It began with closer relations between generations that could be called a quasi “grandparent-grandchild” relationship. “It was a pleasure to work with her.” The young people with empathy played a key role in the social integration of the elderly persons through infocommunications. At the same time provisions must be made, both in the sample and in general, for the problem caused by volunteers dropping out temporarily (students’ summer vacation) or permanently. Various solutions can be found for providing the continuous help so important for the elderly: regular reserve volunteers for the “drop-out” periods (e.g. a university student); a roster of volunteers; a “volunteer on call” (for occasional problems); Hungarian-speaking volunteers from the neighbouring countries; volunteers

based on other interpersonal relations (neighbour, friend, colleague), more intensive involvement of grandchildren (when they have more free time during the summer break) (personally if they live in the same settlement, by Skype for those living elsewhere). The role of grandchildren is especially important: the elderly persons have strong emotional ties to them and readily accept their role as teachers.

This new type of relationship is capable of setting off a positive trend and changing negative stereotypes regarding the elderly.

Change of interpersonal network

Three phases can be distinguished in the wish and efforts of the older people to maintain connections, resulting in the change of their interpersonal network.

Phase 1. Intention to talk only to family resulting in

- Maintaining or strengthening their relationship.

Phase 2. Attempt to find a friend, acquaintance resulting in

- Keeping old relationship alive.

Phase 3. Efforts to find other older people resulting in

- Wider social network.

1. At first most of the elderly persons accepted Skype solely for contact with relatives and despite encouragement they did not want to contact others through this medium, not even other participants in the Skype programme. 2. This behaviour shifted to a qualitatively different dimension when they started to find acquaintances, friends, schoolmates. 3. As their infocommunications skills grew, their interpersonal network became even wider and entered into an intra-generational phase (in the fourth month) when besides entertainment and learning they began to make efforts to contact and help each other. E.g. one of them found information about the harmful effects of internet use (damage to the spine, etc.) as well as various health tips to counter this (rising early, eye exercises, etc.) and sent this to other recipients of care and acquaintances. An unexpected result of the third phase is that elderly persons performed *voluntary activity* via infocommunications. This can be regarded as an element increasing the well-being of the peer group. The most important lesson of the change is: not a shrinking but an expanding personal network!

The relationship between the formal carer and the recipient of care also changed. It became possible for the care centre (Budapest) too, to maintain contact through Skype in addition to the earlier personal or phone communication. This reduced the time input needed for certain types of care, often replacing use of the telephone and so saving costs for the care centre.

CONCLUSION

The model action programme has proved that even very elderly, sick persons in need of nursing are capable of learning to use Skype, something entirely foreign to them, if they have the motivation and are given sufficient help. In addition, Skype acts as a catalyst, leading to a higher level in the learning process; successful learning arouses the curiosity of the elderly about new forms of infocommunications and the internet. By learning to use the internet they can acquire new knowledge and keep themselves busy. This fills their days with 3-4 hours of activity, and the new interest gives them a purpose in life. While use of the internet often causes dependency in the younger generations, for the elderly it represents a positive dependency and stimulus. However, the learning process requires a helping mediator; in addition to support from carers, relatives, neighbours and technicians, the regular activity of volunteers is indispensable. A lack of success can slow down or block continuous learning but with time the “learner” can become “self-propelled” and will be capable of discovering new things alone. Their loneliness and depression end and their interpersonal contacts expand. With the end of depression many health problems also disappear. At macro level this reduces costs for the health service (the research made no measurements in this respect) (medication needed for psychosomatic symptoms, emergency service calls, visits to the general practitioner) and the burden on social carers is also eased. By making use of the possibilities offered by infocommunications the elderly persons are capable of reintegrating themselves into society. In this way the infocommunications skills acquired by sick, elderly recipients of care have a positive effect at both macro and micro levels. All the participants in the sample were capable of acquiring close to the same level of skills; any difference found was only in the speed of the learning process, so it was only a matter of a phase lag. The most important positive feedback is that all participants were ready to pay for an internet connection after finishing the program and the reason they gave was that their life had basically changed.

The research disproved the social prejudice that elderly persons in need of care, with deteriorating functions and a poor state of health are incapable of acquiring the skills needed for modern technology.

Developments after the research was concluded reflected general surprise in society, then joyful recognition that simple, widely available cost-effective ICT is capable of easing care problems. All the participants in the program became internet subscribers and with the PC modern technology became part of their lives. After dissemination of the results, local authorities indicated that they intend to launch similar initiatives in their own area. We have received feedback from families, saying that they would willingly buy computers for their elderly family members. The university college participating in the experiment included the results in its curriculum and as a result the social work students have learnt about the ICT “eldercare format” previously unknown to them. Care centres have signalled their intention to introduce Skype care

as a way of facilitating their work and reducing costs. The hypothesis that it would be difficult to recruit volunteers has also been disproved. By the time the project came to an end, twice as many 16-year-old volunteers wanted to help elderly people (not as part of the volunteering included in the school curriculum). The reason for the increase in the number of volunteers is simple: the young people gladly transfer to the elderly the internet skills that are an integral part of their lives and in doing so they learn to love the elderly people, understand their problems and gain empathy. In this way the young people play an important role in social inclusion of the elderly.

Market actors too need to rethink their business policy and take into account two large target groups with a demand for computers and internet subscriptions: elderly sick persons in need of care who can afford to buy PCs for themselves, and families wishing to buy PCs for elderly family members.

At the same time, the highly effective program also raises new questions. How can this positive process be launched for people with disadvantages, even multiple disadvantages? What phase lag must be anticipated for elderly persons of different age, social background, level of schooling, gender, type of settlement and region? Could the attempt be unsuccessful and if so, to what extent and in what cases? What other type of problems could arise and what intervention would be needed to solve them? The research presented here serves as a guideline, but the questions together with many others building on the results obtained so far can only be answered with a new action research already in progress.

*Jelen cikk a Széman Zsuzsa – Solymári Dániel (szerk.):
Challenges of Ageing Societies in the Visegrad Countries
(Magyar Máltai Szeretetszolgálat, Budapest, 2013) című kiadványban jelent meg.*

Endnotes

- 1 Percentage of population age 55-74 with no basic computers skills in 2005 e.g.: Greece 93%; Lithuania 90%; Cyprus 88%; Italy 87%; Latvia 83%; Poland 81%; Slovakia 73%; Austria 67%. While the figure for Luxembourg is 45%; Iceland +36%; Norway 27%; Denmark and Sweden 27%.
- 2 The elderly persons undertook to participate in the action research even though they knew that they would be able to use the mobile internet free of charge only for the duration of the research.

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