

Lectio praecursoria

Helena Blažun, 16.8.2013

Madam custos, Madam opponent, ladies and gentlemen!

It is my great pleasure to have the opportunity to speak about my dissertation with the title »Elderly People's Quality of Life with Information and Communication Technology (ICT): Toward a Model of Adaptation to ICT in Old Age« supervised by Prof Kaija Saranto and Prof Sari Rissanen.

At the very early stage of my research process my supervisors during one of our many scientific discussions asked me some questions like: what do you want to achieve with your research idea, who do you want to affect with your study, how do you want to change the society, how do you expect society to respond to your research results, what is the purpose of your study. At that point I have to admit I was a little bit lost and quite scared; of course they noticed that and therefore asked a little differently by saying: "Try to look at your research process as you would be looking through glasses, what do you see?" And then the answers became quite obvious, I want to help elderly people, I want to help them being empowered by ICT and capable of influencing their own lives with the support of ICT and that is something what I have been doing during my whole research engagement in the field of health informatics. All my efforts were focused toward the use of ICT by elderly people for their personal empowerment and consequently to increase the level of their QOL.

But why is this subject so important? Simply because of the fact, that the emerging demographic change towards an ageing population is introducing drastic changes in our society. We therefore need to find ways to motivate and assist elderly people in a best possible way to stay active for longer in the labour market, to prevent social isolation and promote societal inclusion and finally to help them stay independent for as long as possible. Therefore, main motivation for this research was "e-Inclusion" of elderly people which aims to achieve that "no one is left behind" in enjoying the

benefits of ICT [1]. ICTs play an essential role in supporting daily life in today's digital society. They are used at work, to stay in touch with family, to deal with public services as well as to take part in culture, entertainment, leisure and political dialogues.

As regards literature, there is a large gap in the ICT knowledge between age groups [2] which consequently raises the question of how elderly people can be motivated to learn ICT skills and use ICT solutions for their personal empowerment and better QOL and after all to stay in control of their own lives.

The purpose of the study was to understand and support elderly people in their ICT engagement, through which they could become equal members of information and knowledge society and in this way, through personal empowerment to affect their QOL.

But to be able to achieve the overall purpose I needed to understand the three most fundamental concepts of the study which are: elderly people, ICT and QOL.

The definitions of the concept "Elderly people", "Aged", "Elderly" vary, from WHO definition, which define older person as someone aged 65+, however this definition does not adapt well in some countries, for example Africa where many individuals do not have official record of their birthday; then we know the UN definition, where it is agreed that 60+ years is a cut-off when referring to the older population [3].

From what I just explained it is quite obvious that definition of what old age is, is still somewhat arbitrary, but is always associated with chronological ages, changes in social role (changes in work patterns), and changes in capability (senility, changes in physical characteristics) [4]. Within my study people aged 57 and more were included which makes them quite a heterogeneous age group with different political, social, economic situa-

tions and different age related problems, chronic and potential functional declines. Elderly people also came from different settings, regions, countries, which in addition to the previously mentioned chronological age or social/cultural/functional markers could at some point influence elderly people's capacity to use ICT.

When studying QOL of elderly people we need to start with understanding QOL of elderly people as meeting their wishes and needs; meaning that QOL is a subjective perception of an individual. It is important how different definitions of QOL could be combined with definitions of ICT. To be able to conceptualize and understand the basic theoretical concepts I had to explore intersection points of both concepts.

ICT in a broader context means computer based management of data and technologies within this context are used for efficient and effective communication with individuals, groups and societies who are able to create, store, process, retrieve and transmit information [5]. With ICT elderly people have opportunity and possibility for purposeful use of knowledge, experience and resources to satisfy individual wants and needs. ICT additionally offers added value to Lifelong Learning process of elderly people with which they are able to affect their own QOL. Elderly have individual choices within ICT concept regarding how to use technological applications to affect their own QOL.

QOL is in general understood as multidimensional, multisectoral and multidisciplinary concept [6-8] within which important domains for elderly people are Being, Belonging and Becoming [9]. Elderly people want to be recognized as physical beings, psychological beings, and spiritual beings. They also as other generations want to feel that they belong to the society or community within which they live and want to give added value to it, to interact and work, but mostly they want to still achieve personal goals. The fact is that elderly people are part of society, but equipped with knowledge and wisdom they co-form information society which is a dynamic and constantly evolving concept. Social system consists of different roles which are maintained by structural relations among them [10]; individuals who form the society have their own role defined in the value system.

When elderly have access to the global information, they are able to transform information into knowledge and also understand knowledge. Knowledge distribution must be based on equity, non-discrimination, justice and solidarity. Within those principals we will also enable and ensure elderly cultural diversity, equal access to education, universal access to information and freedom of expression which are four main principals of UNESCO [11,12].

So, to be able to achieve the objectives of my study I divided the purpose of my research into four aims:

1. To analyse and describe previous scientific knowledge of ICT use by elderly people and to assess the factors which influence elderly people's ICT engagement;
2. To evaluate and analyse elderly people's willingness to adopt ICT in Austria, Ireland, Slovenia and the UK;
3. To evaluate correlations between ICT use and QOL from the perspective of loneliness in two cases (Finland and Slovenia);
4. To develop and validate the "Model of Adaptation to ICT in Old Age";

Regarding the methodology my research process contains 4 phases within which I decided to use various qualitative and quantitative research methods from a data content analysis using an interpretative hermeneutic approach performed in phase 1 and a single-point evaluation study in phase 2, to a longitudinal quasi-experimental study carried out in phase 3. The content analysis of the first, second and third phase and the analysis of data obtained from the quantitative results present the background for the phase 4, the development of the Model of Adaptation to ICT in Old Age. The data acquired was evaluated in context to generate the initial theory for the model, based on four elements of the ICT adaptation process: Why would elderly people be willing to adopt ICT, Where in the community can elderly people get support for the ICT adaptation process, How can elderly people be empowered through lifelong learning and What are the outcomes of the ICT adaptation process for elderly

people. Conclusions and recommendations were prepared on the basis of a descriptive synthesis of the critical conclusions, mainly based on Habermas's philosophical theory of communicative action and theory of knowledge and human interests, with a view to exploring the issue of elderly people's empowerment with the use of ICT. The study applies Habermas's theory to a situation where the empowerment of elderly people is supported by transmitting and renewing knowledge in a process of achieving mutual understanding, which later results in actions toward social integration.

To sum up, the main results presented in my thesis can be listed as follows:

- From research evidence it is clear how elderly use ICT, for what purposes they use it, what kind of attitudes they have toward ICT, what affects these attitudes, their opinion about benefits of and barriers to the ICT use. However through all these knowledge I tried to sum up parallels to the concept of QOL of elderly people and found out that studies were mainly based on single, one-off measurement. I also had concerns about methodology of the existing research, small samples, homogeneity of the population, ICT interventions were too short to see the effects of ICT on elderly's QOL and therefore conclusions are not as reliable as we would like them to be.

- Motivation of elderly people in both, early stage and during their ICT adaptation is crucial for learning process. To be able to achieve this state, ICT facilitators and their education from ICT as well as health sciences is very important. Furthermore to the successful ICT adaptation of elderly people, the personalized teaching method seems to be very useful, since it enables learning based on elderly's wishes and needs, is problem based and enables flexible learning.

- ICT can have positive impact on social inclusion and can reduce the level of loneliness of elderly people; however this impact depends on participant's background, lifestyle, country, gender, occupation, education etc.

- The greatest challenge of this study was to develop a theoretical and contextual model which would, on the one hand, promote elderly people's initial motivation and, on the other hand, consistently support elderly people's encouragement to use and adapt to ICT for a better QOL on different social arenas. The adaptation to ICT by elderly people is a complex process that involves various components, and the model represents one of the alternatives for successful ageing, by understanding the heterogeneity of outcomes of all four elements within the model, which can lead to better outcomes of the whole ICT adaptation process. The adaptation process represents an attempt to gradually adapt to ICT and highlights the prospects which are available in various environments where elderly people live and work, and could affect the extent of implementing the model in practice.

- This research process and the conceptual framework of the Model of Adaptation to ICT in Old Age developed during it made it possible for me to summarize the definition for elderly people's QOL and well-being in correlation with ICT as follows:

“The level of QOL is associated with ICT and as such represents a multidimensional concept and a multisectoral and intergenerational process through which it is able to achieve a condition for satisfying individual wants and needs of becoming an equal member of society so as to empower knowledge society.”

I would like to conclude by admitting that I am aware that presented results of this study should be considered and treated carefully, since the fact that the direct impact of ICT on elderly people's QOL is difficult to prove and due to some limitations of this study such as different settings, variations in organizing ICT training courses, different backgrounds of participants, use of non-standardized measurement tools, language barrier and some others. Therefore, in the future it is necessary to develop measurement tools to measure this phenomenon more directly within longitudinal studies and to focus on careful development of research methodology. Furthermore, such studies need to include participants with diverse ethnic backgrounds, lower socio-

economic status and lower education level, which will enable even more valid and reliable results.

All in all, in the future, demographic changes will remain a challenge to societies; however, this phenomenon also offers various opportunities for the intergenerational development of communities. This study has contributed to the understanding of elderly people's use of ICT, challenges of ICT-enabled learning, elderly people's needs and motivations for ICT engagement, and the potential effect of ICT on elderly people's QOL. Elderly people who have adopted ICT represent higher and added value to the community, as they are able to transfer their wisdom and knowledge to younger generations with the support of advanced technology and consequently, through personal empowerment, improve their QOL, stay healthier and more active, maintain a high degree of independence and autonomy, enhance their mobility, improve access to personalised integrated social and health care services, and in general positively influence their own and other people's lives.

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