Work in Progress: Seniors' Club – Technology Club and Research Laboratory

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Abstract - **As the older people have usually had very little experience with computers in their working years, they are in risk to be left out of the reach of many electronic services modern world both provides and requires. In order to make the increasing number of senior citizens active members of information society, user-centered and humane research approach is needed from both technology and seniors' point of view. To answer this, University of Joensuu initiated a technology club for senior citizens to learn information and communication technology and contribute to Human-Computer Interaction and Educational Technology research. During the first year of activities altogether 21 seniors, aged between 60 and 75, have collaborated with university's researchers and student tutors for mutual enlightenment in older people's approach to information technology. This paper describes the background of Seniors' Club and what happened in the club during its first year.**

Index Terms – Inclusive design; Older people and technology; Technology learning; Community outreach program

INTRODUCTION

Everywhere in the developed countries, the population is aging rapidly. For example, according to the population projection developed by Eurostat in 2005, more than 22 percent of European Union population will be aged 65 or more by the year 2025. [1] At the same time the society and the everyday surroundings are becoming more complex in technological terms. Thus, the active participation to society's activities demands more and more skills from the citizens. To prevent the emergence of widening technological gap between the young and the aged, the elderly people need an access to better technological skills and the technology developers need more profound understanding of user groups with special needs, such as senior citizens. Being unable to use new technology puts senior citizens at a disadvantage in terms of their ability to live and function independently, and to successfully interact in modern environments. [2]

In October 2005, the Department of Computer Science at the University of Joensuu started a research project and community outreach program called Seniors' Club [3]. Seniors' Club is both a technology club for elderly people and an experimental, living research environment for researchers in the fields of educational technology and human-computer interaction. This rare combination of research and club activities differ the Seniors' Club activities of many other similar kinds of activities offered to senior citizens by the community colleges or other educational institutions devoted to life-long learning. The Seniors' Club model of working with senior citizens is based on the experiences gathered in the Kids' Club project ran at the same department since fall 2001 [4].

SENIORS' CLUB IN A NUTSHELL

The idea of Seniors' Club is to help senior citizens to acquire the technical skills and knowledge needed in the modern knowledge society and economy. Furthermore, the idea is to enable them to utilize information and communication technology (ICT) in order to improve their quality of life. In addition, the club is meant to empower the senior citizens to take their role in the information society as actors and developers, thus utilizing their life-time experience and social skills for designing relevant innovations for their peers together with researchers and fighting their potential technological isolation.

During the first year of activities, there were altogether 21 seniors and 6 tutors/researchers, who participated in the club activities. The seniors were originally sought out by notifications about the soon starting club activities in local newspapers and radio. The selected 11 men and 10 women were of all skill levels, ranging from complete novices to very adept users. Selection was based on the order of time of application, no other criteria was applied to the interested applicants. The seniors were divided into two groups, distributing skill levels and gender equally as possible. Each group met twice a month two hours at the time from October 2005 to May 2006. Most of the seniors had also computers at home to work with, which helped them to continue on their projects outside club meetings.

Activities from the Seniors' Point of View

In Seniors' Club, the seniors learned technology skills by working in technology projects together with researchers and tutors. During the first year of activities, the common theme for projects was stories and life-experiences. As the projects went on, technology was studied in a problem-based manner; where new skills are learned as encountered authentic

problems are being solved. As part of their projects, the participants' learned to use such tools as digital still and video cameras, scanners, word processor, and movie maker. The presentations that seniors' composed ranged from historical studies and digital material guides to personal chronicles for participants' own grandchildren. In addition to these and other topics not mentioned here those were directly related to the projects, seniors' brought up questions concerning issues such as data security, computer and video games, and digital television. The other examples of the topics that came up during the discussions we had in the seniors' club sessions include: digital vs. analogue world, usage of digital recorders, manipulation of digital materials, and creation of own presentations both for single computer and for internet audience.

As Previous studies have shown, the positive initial experiences are very important for older people to build confidence in their computing skills [5]. Therefore, Seniors' Club has also set up a blog, which functions as the main communications channel outside the club meetings. In addition to using it for notifying various club-related issues, some seniors have found it useful for sharing hints of software and services, and for asking help for their problems. By showing what can be done with technology, selecting suitable tools, and having peers and tutors to guide and help to use it, many seniors have taken a very enthusiastic approach to new technology.

Activities from Research Point of View

From the research point of view, the Seniors' Club offers researchers an authentic living laboratory, where to work and conduct research. The expected research outcomes include in addition to new learning tools or design guidelines also cumulating empirical know-how in working together with real senior citizens. During the first year of activities, the research interest has been in the development of the Seniors' Club model itself. Furthermore, small-scale research trials have been conducted for example by utilizing eye tracking in a research related to the usability of Finnish governmental web services. There is also an ongoing research for developing digital television services for elderly people. The research activities that are bound to the club activities ensure that the club is developed continuously during its coming years of activities.

DISCUSSION

The Seniors' Club model fits well with the idea of third age [6], where senior citizens are not frail, passive and dependant of other people. Instead, just after working life, they have time, money, and freedom to seek out their aspirations. They are active and independent actors in the society. In Senior's Club, the elderly are active subjects, designers and participants, and not objects to whom surveillance technologies and feeding robots would be designed.

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REFERENCES

[1] Eurostat. (2005) EU25 population rises until 2025, then falls. Eurostat news release 48/2005. Publication available online, URL: http://epp.eurostat.cec.eu.int/pls/portal/docs/PAGE/PGP_PRD_CAT_PREREL/PGE_CAT_PREREL_YEAR_2005/PGE_CAT_PREREL_YEAR_2005_MONTH_04/3-08042005-EN-AP.PDF. Last accessed on May 7, 2006

[2] Czaja, S.J., Hiltz, S.R. (2005) Digital Aids for an Aging Society. *Communications of the ACM 48*, 10, 43-44.

[3] Keränen, J. (2006) Seniors' Club, Internet WWW-page, URL: http://cs.joensuu.fi/senioriklubi/eng/. Last accessed on May 7, 2006.

[4] Eronen, P.J., Jormanainen, I., Sutinen, E., Virnes, M. (2005) Kids' Club Reborn: Evolution of Activities. In Proc. *The 5th IEEE International Conference on Advanced Learning Technology (ICALT 2005),* IEEE Computer Society Press, Los Alamitos, California, USA, 2005, 545-547.

[5] Dickinson, A., Newell, A.F., Smith, M.J., Hill, R.L. (2005) Introducing the Internet to the over-60s: Developing an Email System for Older Novice Computer Users. *Interacting with Computers*, 17, 6, 621-642

[6] Laslett, P. (1991). A Fresh Map of Life: The Emergence of the Third Age. Cambridge, MA: Harvard University Press.