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The value of role models in design of social media for elderly

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Abstract. An active social life is an important prerequisite for prolonging an active life at home. One of the on-going activities within the EU AAL-initiative is the co-living project, which aims to produce a mobile system to support elderly in staying socially and physically active. Part of this work includes focus group interviews with role models, domain experts and end-users. The work presented here suggests using the behaviour of elderly role models, who are socially active, informed and technologically savvy as guidelines when designing focus groups for the elicitation of requirements.

Keywords. Requirement elicitation, social media, ambient assisted living

1. Introduction

Preventing social isolation and maintaining elderly's health and functional capabilities are critical premises for realising the ageing-at-home vision. While social media can play a key role in helping people feel connected to the outside world, conventional solutions are typically not designed to cater for the elderly population.

As part of the EU research project Co-living[1] we aim to develop personalised social media to help promote active living among elderly, both in a physical and social sense. In order to form a basic understanding of the type of behaviour such a solution should encourage and the type of support it should offer, we have conducted a series of focus group interviews. The initial focus group concentrated on elderly who are both physical and social active as well as technological savvy; this group already has the life style that we wish to promote. The second focus group consisted of domain expert in the form of health workers who work with elderly; this group provides a perspective on the general issues concerning elderly. The final focus group is elderly in our target group; that is elderly who are less physical and social active than they would like.

The work presented here focus of the first group: the role models. They represent elderly perceived to have the high quality of life that Co-living wish to promote. We have tried to translate these success stories into a goal model for our solution, thereby informing the design of social media. The use of socially active, informed and technological savvy elderly in the early phase of the design process allows us to develop the right set of questions to be used during requirement elicitation.

Among the main criteria to maintain and prolong a good ageing process are: physical activity, good nutrition habits, social support and being needed [1, 2, 3]. Ambient

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[1] http://www.project-coliving.eu

Assisted Living (AAL) research initiatives investigate how ICT can help fulfil these criteria [4]. Designing ICT solutions that seek to enhance quality of life need to be based on clear and realistic visions of what comprises quality of life and what role ICT can play in this context. The prototypical way of identifying user requirements in a user-centred approach is to ask representatives of the target group. Whilst this can help illuminate users' perceived challenges it is arguably insufficient for forming an idea about human behaviour and the life style that social media should encourage.

Designing social ICT solutions for the elderly faces some challenges beyond the traditional ones. In Europe, only one in five in the age group 55-74 uses Internet on a daily basis [5]. Thus, an ICT solution for elderly must bridge the generational gap in Internet usage [6, 7]. The other important challenge is ensuring that ICT supported social activity supports physical social activity and not only substitutes it. Thus, the virtual-physical gap must be bridge as well.

2. Focus group and analysis

To approach the generational gap we invited a focus group of elderly who successfully had bridge it. The group consisted of five elderly, three male and two female, whom are all socially active and technological savvy. They were aged between early sixties and early eighties. Some were still professional active. The focus group session was carried out as a semi-structured discussion aiming to shed light on: 1) their routines for being socially active, and 2) the role that ICT play in this context.

During the focus group video and audio was recorded. These were analysed in search of elements describing the participants' social life and the role ICT plays.

The discussions about the participants' routines revealed that they were very conscious about, and took explicit measures to maintain their social network. Some participants still pursued their former occupation although formally being retired. This was out of personal interest but also a deliberate way of keeping in touch with their network. One participant even recently changed job due to a dissolvent of her former network.

All participants stated that they are frequent users of multiple communication channels, such as email, SMS, Facebook and Skype. They also appeared to deliberately choose specific channels for specific social purposes. Factors influencing their choices included not only what they themselves were comfortable with but also what they wanted to communicate and assumptions about what would suit the recipient. They were also very conscious about how virtual socialisation did not replace their need for physical socialisation; rather it is a supplement where the choice is made explicitly.

In summary, the participants are social physical and virtual, they are technological savvy and clearly make informed choices when deciding on communication channels.

3. Role models and target groups in Co-living

Co-living builds on the Mpower open service oriented platform [8] combined with a social community network (SoCo-net). Together these two parts supports mobile wireless ICT services for social networking. The initial analysis briefly sketched here defines three sub-goals for Co-living:

1. Co-living must assist users in choosing appropriate communication channels;
2. It must suggest when and how physical meetings are appropriated; and
3. Have an appearance and usability that will make the user technological savvy.

Thus, when approaching the target group the design of questions and the direction of focus group sessions are directed by the goals above. That is, for the first goal the discussion can focus on how to present communication channel choices and how to assist the use in their choice. For the second goal, the focus group can revolve around how SoCo-net can assist the use and what information the user would like to give up and receive. Finally, for the third goal usability of the other two goals can be tested and designed through tangible prototypes.

4. Concluding remarks

The work presented here suggests using the behaviour of socially active, informed and technologically savvy elderly as guidelines for designing social media technology. Combined with the aforementioned other two groups consisting of domain experts and target users respectively, this process will help the designer to focus tools for elicitation of the target group specific requirements.

References

[1] Agahi, N., Lagergren, M. et al., 2005. *Halsoutvikling og halsoframjande innsatser på eldre dar.* Statens folkohalsainstitutt 2005:6
[2] Manell, R.C. and Dupuis, S. *Life Satisfaction.* University of Waterloo, ONT, Cananda. Elsevier Inc. 2007
[3] Levasseur, M., Richard, L. et. Al: Inventory and analysis of definitions of social participation found in the aging literature: Proposed taxonomy of social activities. *Social Science and Medicine* 71 (2010) p. 2141-2149
[4] van den Broek, G., Cavallo, F., Wehrmann, C., eds.: *AALIANCE Ambient Assisted Living Roadmap.* IOS PRESS (2010)
[5] Danmarks Statistik: Oktober 2009.*Befolkningens brug af internet 2009*
[6] Charness, N., Warner, K. S. (Ed.) 2003. *Impact of Tecnology on successful Aging.* Springer Seriers Societal Impact on Aging-Springer Publishing Company inc
[7] Cutler, S.J. Technological Change and Aging. *Handbook of aging and the social sciences.* 6th edition. Academic press. 2006
[8] Pitsillides, A., Themistokleous, E., Samaras, G., Walderhaug, S., Winnem. O.M. Overview of M·POWER: Middleware platform for the cognitively impaired and elderly. In *Proceedings of IST-Africa 2007* Conference & Exhibition, Maputo, Mosambique, May 2007.