

HCI and the Older Population

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ABSTRACT

HCI issues for older people are extremely important in light of the rapidly ageing population in developed countries. In addition, technology offers great potential for this age group but it will only be useful if it can be used effectively by its target users. In this workshop, we will therefore examine how HCI can address the needs and situations of this increasing older population. We aim to build up and support the research community in this area by providing a forum for the presentation of current work and a platform for discussing key challenges in this area. This workshop continues a successful series held at HCI in recent years and this year focuses on methodology, exploring how older people can be considered and included most effectively in design.

Categories and Subject Descriptors

H.5.2 [Information Interfaces and Presentation (e.g., HCI)]: User Interfaces – *User centred* design. K.4.2 [Computers and Society]: Social Issues

General Terms

Design, Human Factors.

Keywords

Older people, inclusive design, disability.

1. TOPIC

The population of the developed world is rapidly ageing [6], with implications for many areas of policy and practice, including that of the design of computing and interactive systems. Such systems are becoming an increasing part of daily life and present valuable opportunities for supporting people with age-related needs. However, older and disabled people often find them unsuitable or difficult to use, due to differences in experience, abilities and situations. The resultant HCI challenges have yet to be comprehensively addressed.

This workshop aims to build up and support the community in the area of HCI for older people. It provides a forum for the presentation of current work in this area and the discussion of important issues; promotes discussion of this topic on a wider

level and draws together an often scattered research community. It builds on previous popular workshops held at HCI in 2002, 2004, 2005 and 2006 (e.g., [2]) which examined the topic of “HCI and the Older Population” and focused on different angles such as the Internet, and the relationship between inclusive design and specialised design for older people.

1.1 Sub-topic: Methodology

This year, the workshop will focus on methodology, exploring how older people can be considered and included most effectively in design. Although we will welcome papers on any aspect of HCI and the older population, we will particularly encourage papers that examine methodological aspects. The main discussions, activities and keynotes will also be centred around this area.

Methodology is of particular importance because standard user-centred techniques do not always work well with older people. For example, Eisma *et al* suggested that there was a need to build a diverse user group and form long lasting relationships with older people [1]. In our last workshop, Prendergast and Roberts reported on an extensive study to engage with the cultural and contextual issues surrounding the use of new technologies by older people [5].

Despite a growing awareness of the need to consider older people in design, many designers struggle to do so effectively. For example, a recent survey of industry found that one of the biggest barriers to inclusive design was a lack of “the knowledge and tools for practicing it” [3]. Many different methods have been developed and used effectively in individual projects, particularly within research contexts. However, further work is needed to provide more general guidance, particularly to people in industry.

In this workshop, we will therefore consider the issue of methodology and how designers can consider older people most effectively. We will address key questions such as:

- What methods are most effective for involving older people in design?
- What methods are effective in an industrial context?
- How can we adapt existing methods to work better with the older population?
- How can we help designers to consider older people when they have a very limited budget for user involvement?
- What data about older people do designers need?
- How should this data be packaged in order to be most effective?

This list of questions is not exhaustive and we look forward to input from the workshop participants in identifying

methodological issues that are of key concern for the community.

2. WORKSHOP PROCEDURE

2.1 Participants

This workshop aims to bring together researchers, people from industry and other interested parties in order to build up and support the research community in the emerging area of “HCI and the older population”. Most participants are likely to be involved in research on technological products or HCI issues in academic or industrial settings, but we are also keen to have representatives from charities and education working on the use and development of technology with older people. Older people themselves will also be welcome. We hope in this way to get input from a wide range of those involved in different aspects of HCI and the older population, leading to more balanced views of this area and of the issues involved.

2.2 Advance Participation

We will ask researchers interested in attending the workshop to submit short papers (2 pages) on their work so that these can be circulated in advance of the meeting and published as a set of proceedings. As indicated above, we will welcome papers on any aspect of HCI and the older population, and will particularly encourage papers that examine methodological aspects of this area. Other interested participants will be asked to provide a short description of their interest in the topic. This will enable attendees to gain a picture of each other’s interests before the meeting and will also provide a record of the workshop for other interested parties.

Interested participants who have not submitted a position paper or expression of interest may be considered in special instances but not in the general case.

2.3 Programme

The programme for the day is likely to follow the following format:

Ice-breaker: We will start with an ice-breaker event to encourage the group to mix and get to know each other on an informal basis.

Keynote 1: A short keynote talk by a leading academic in the field will introduce the topic of HCI and the Older Population. The talk will highlight some of the methodological issues of considering and working with older people. The keynote will be followed by a short time of questions and discussion.

Poster and demo session: A poster and demonstration session will allow participants an opportunity to present and discuss their work and to hear about other research in the area. All participants who have submitted a paper will be invited to display a poster and we are keen for those who have developed products and prototypes to show them to the group. The session may start with a brief introduction in which poster presenters point out their posters and introduce themselves. Posters will also be displayed throughout the day to allow plenty of time for participants to examine them.

Discussion Groups 1: Small groups will then be formed to discuss some of the topics mentioned above. To facilitate this discussion, each group may be given specific questions or tasks to look at. After a time of discussion, the groups will report back to the workshop as a whole, summarising their key points and conclusions.

Keynote 2: A member of the older population will provide a second keynote address, focusing on his or her experiences as a participant in user research. We hope that this will provide deeper insight into how to adapt user involvement to be more suitable for this population. There will be some time to discuss implications of this after the talk.

Group Activity: We will then break into smaller groups, to do an interactive activity, looking at (and possibly trying out) a range of different methods for considering and involving older people in design. This session will last for about one to two hours altogether.

Discussion Groups 2: The groups will then discuss the results of the group activities and further issues to do with methodology. After some discussion in small groups, the groups will report back to the workshop as a whole.

Wrap-up: As a group as a whole, we will look back on the workshop and try to extract key points from the discussions, focusing on what work needs to be done in this area and how to follow up the workshop. Before finishing, the organisers will sum up the findings of the day and we hope that the group will go out for a social activity in the evening as a further step towards building a community.

2.4 After the workshop

The submitted papers will be published in dedicated proceedings in electronic and printed form. Following on from the example of the previous workshops in this series (e.g., [4]), we may publish a journal special issue, with submissions solicited from workshop attendees.

3. ACKNOWLEDGMENTS

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4. REFERENCES

- [1] Eisma R., Dickinson, A., Goodman, J., Syme, A., Tiwari, L., and Newell, A. F. Early User Involvement in the Development of Information Technology-Related Products for Older People. *Universal Access in the Information Society 3(2)* (Special Issue on Design Principles to Support Older Adults, 2004), 131-140.
- [2] Goodman, J., Dickinson, A., Keith, S., and Whitney, G. (Eds). HCI, the Web and the Older Population, workshop at *HCI 2006* (London, UK, 12 Sep 2006). http://www-edc.eng.cam.ac.uk/~jag76/hci_workshop06/
- [3] Goodman, J., Dong, H., Langdon, P., and Clarkson, P. J. Increasing the Uptake of Inclusive Design in Industry. *Gerontechnology 5(3)* (Special Issue on Universal Design, Sep. 2006), 140-149.
- [4] Goodman-Deane, J., Keith, S., and Whitney, G. Special issue on “HCI and the Older Population”. *Universal Access in the Information Society*. (2008, in press).
- [5] Prendergast, D., and Roberts, S. Practice systems and technology for elders. *Universal Access in the Information Society* (2008, in press).
- [6] U.S. Census Bureau. International Data Base (IDB). <http://www.census.gov/ipc/www/idb/>, updated July 2007.