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OLDER PEOPLE AS EQUAL PARTNERS IN DESIGNING A DIGITAL DEVICE FOR SENIORS' EVERYDAY NEEDS

Helena Sustar, Sara Jones, Panayiotis Zaphiris

*City University London, School of Informatics
Centre for HCI Design, Northampton Square, London,
helena.sustar.1, s.jones@city.ac.uk*

In this paper, we describe use of a User Centred Design (UCD) process, including Cultural Probes and creative workshops, intended to stimulate everyday creativity in designers and older people designing digital devices for seniors' everyday needs.

1. Problem statement

Older people represent an increasing proportion of the population, and a huge potential market for digital consumer products. However, they are rarely involved in the process of designing new technologies, or if they are, they are usually brought into focus groups during analysis or at the end of the process as participants in usability tests. Designers are unfamiliar with older users' needs, which results in the development of inadequate products for this population, and often products with low acceptability amongst older people. There is a need to determine the effectiveness of different techniques for involving older people in a creative design process. We want to address this need.

2. Methodology

Our method is based on a four stage model of the creative process that includes activities designed to support preparation, incubation, illumination and verification [2]. In the preparation stage of the process, Cultural Probes [1] were used to prepare participants for activities in the creative workshop, by working through a package, which contained a workbook, a questionnaire and a 7-day diary. Participants were also asked to develop a Mind Map illustrating their relationship with their computer.

Incubation, illumination and verification were encouraged in creative workshops in which participants worked in groups, including both designers and senior citizens. Incubation was supported in the workshops by the use of ice breaker sessions, where participants needed to tell others their most pleasurable experiences with their favorite devices. Support for illumination involved the use of brainstorming around four key questions ('What should the device be used for?' etc), stimulated by use of 'creative cards', each providing a key concept (e.g. 'connection') and an appropriate visual stimulus (e.g. a picture of grandfather with a grandchild). At the end of this session participants had a chance to vote for "the Golden idea", which was then developed further in the illumination stage. In this stage participants were asked to develop and reify their ideas in three different ways: either visually, using storyboarding techniques, as a concrete prototype, using materials from a 'magic box', or

verbally, by recording an aural description or written concept definition. Finally, participants were given a questionnaire and asked to evaluate the novelty, appropriateness and reliability of ideas from their own and other groups, and the methods that had been used in the process as a whole.



Figure 1. An example of the Cultural Probes package (left), the Mind map (middle) and the final result from the pilot study (right).

3. Results, Conclusions and Future work

The study involved 11 Human Computer Interaction (HCI) students from City University London and 13 senior citizens from Hackney Silver Surfers Centre. Altogether 21 participants completed the entire study. 2 students and 1 senior citizen participated in a pilot study. 9 students and 9 senior citizens then took part in three creative workshops with six participants each (2 groups with 3 participants). The first was conducted with HCI students only, the second with students and seniors, and the third with senior citizens only. Three senior citizens refused to participate, since they found the study too personal, and they expected the study rather in the form of questionnaire or interviews.

All 21 participants successfully completed the Cultural Probes pack. The most enjoyed component was the creation of the Mind Map. In the creative workshops, the HCI students working alone developed 30 ideas, the mixed group 18, and seniors 20. The “Golden ideas” were developed into 7 prototypes, where participants had the most pleasure with making prototypes through use of raw materials from “magic box”.

In the future work we are planning to analyze in more detail the creative output, video and audio material that was captured in different stages of the study. More specifically we aim to: a.) identify how successful was participants’ creative engagement, b.) the successfulness of the facilitation, and c.) what stimulates or blocks creative ideas.

References

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