

Human-Computer Interaction and Aging

3rd Workshop on Age-distinct User Experience and Interaction Design

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ABSTRACT

Continuing the previous two workshops on age-distinct user experience design, the goal of this year's event will be set on deepening reflections and fostering the exchange of ideas. The full-day workshop will offer researchers and practitioners the opportunity to present current research topics through a written submission and a short lecture. Subsequently, selected problems arising from the work of the invited researchers will be discussed in interdisciplinary groups consisting of researchers, and practitioners as well as representatives of the target group. Through this mix we expect interesting and particularly relevant findings concerning methodological approaches and design directions focusing on elderly user groups.

CCS CONCEPTS

• Human-centered computing → Interaction design → Interaction design process and methods → Participatory design, • Human-centered computing → Accessibility → Accessibility design and evaluation methods, • Human-centered computing → Human computer interaction (HCI) → HCI design and evaluation methods.

KEYWORDS

UX, Interaction Design, Silver Society, Ageing Users, Design and Evaluation Methods

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1 Introduction and Motivation

Considerations of diversities in users counts as one of the core ambitions inherent to human-computer interaction research. Represented by terms such as Digital Participation, Inclusion, Design for Diversity, or Accessibility, various approaches have been developed whose common goal is to design and further evolve interactive (computing) systems so that they optimally accommodate human heterogeneity [4, 6].

One of those heterogeneity factors is the age of a user group, potentially influencing interactions, which makes it necessary to place special focus on accessibility. At the same time, also positive aspects of ageing should be taken into consideration when developing technology – in particular experience, knowledge and the generational perspective seem to be of value [3, 5].

Consequently, the proposed workshop aims to bring together researchers from different disciplines as well as representatives of older age groups (aged 65+) ¹ to reflect ways of designing technology that better fits the needs of this consistently growing user base.

2 Target Group and Procedure

Previous workshops [1, 2] have shown that the field attracts predominately the following researchers:

1. Methods Engineers: Their research focus is the usage and development of methods to develop digital technology and their adaption to older adults.
2. Designers: Their research focus is the development of age-appropriate design guidelines to improve usability and user experience.

3. Evaluation experts: Their research focus is the evaluation of digital technology and the adaption of methods to the characteristics of older adults.

The planned workshop will offer practitioners and researchers the opportunity to present and discuss (preliminary) results from their work. It will start with a classic lecture part, in which participants give short presentations on their work. Representatives from the target group will also be present so that they gain insights into current methodological, empirical as well as design-relevant challenges, and may subsequently be able to provide valuable feedback.

After this presentation and feedback session, which gives all participants an impression of the field's researchers' and/or practitioners' work and lets them discuss challenges and potential solutions, the workshop continues with a more practical part. Thus, participants will be assigned to small interdisciplinary groups where they will work on concrete "research problems". Therefore, every participant who submits a contribution will also be asked to submit a distinct "research problem". While those problem submissions are optional, we believe that there will be a sufficient number of contributions so as to offer a rather diverse set of challenges to work on. The workshop organizers will then transform the submitted problems into distinct tasks to be accomplished by the workshop participants.

3 Contributions

Relevant questions and research topics include but are not limited to:

- How can older users be differentiated for research in human-computer interaction?
- Which methods are suitable for user-centered design with elderly users?
- What are suitable design strategies: universal design vs. adaptive systems?
- How could technology adoption by older people be promoted?
- How can new (VR/AR) technologies be used to support positive ageing?
- How could research in HCI deal with possible declines that are correlated with ageing without drawing a deficient picture of ageing?
- How must explainable and explorable technology be designed for elderly users?

Workshop contributions should refer to one of these or a related thematic priority. They should contain a description of the project or study objective, the target group(s), used methodology and (preliminary) results. Workshop contributions should be between 2 and 4 pages long (according to the ACM template referred to on the official Mensch und Computer 2019 website) and must be submitted through the ConfTool.

About the Authors

Victoria Böhm: Victoria Böhm is researcher at the Media Informatics department of the University of Regensburg. Her work focuses on the evaluation of user centered design and engineering methods in intercultural as well as intergenerational contexts.

Stephan Schlögl: Stephan Schlögl works as Associate Professor in the Dept. Management, Communication & IT at the MCI Management Center Innsbruck. His main research interest lies in human-computer interaction, particularly connected to the increasing use of Artificial Intelligence technologies in daily life.

Torben Volkmann: Torben Volkmann works as a researcher at the Institute for Multimedia and Interactive Systems of the University of Lübeck. His work focuses on the age-appropriate and participative development of "Historytelling", a digital system to record, visualize and share life stories.

Prof. Christian Wolff: Christian Wolff is Professor at the Media Informatics department of the University of Regensburg. His research areas include the modelling and development of multimedia and multimodal information systems, text technology and text mining, digital humanities, and the research of target group-specific methods for user experience design.

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