

Sixth Workshop on User-Centred Design and Evaluation of Adaptive Systems

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Introduction

The sixth workshop on User-Centred Design and Evaluation of Adaptive systems followed in the tracks of five successful workshops held in conjunction with UM2001, UM2003, AH2004, UM2005 and AH2006. The workshop's guiding perspective is that novel design approaches, adequate evaluation methods, and reliable assessment criteria and metrics are prerequisites for improving the quality and usability of the next generations of adaptive systems. This installment of the workshop had a special focus on the user-centred design of adaptive systems, and early formative evaluation studies that inform and guide the development process. This includes the re-use or tailoring of usability- and requirements- engineering methods to facilitate the design and assessment of concepts and prototypes in all phases of system development.

The workshop was divided into two parts. One part included an introduction delivered by the workshop organizers on the state of the art in formative evaluation methods for adaptive systems, serving both as a mini-tutorial as well as a discussion starter. The second part was devoted to paper presentations and the discussions that result from them.

Thematic Areas

The workshop, in line with the steps of its predecessors, focused on the following general themes:

Design. There is a wide array of user-centred methods that can be used to inform different development stages of adaptive systems. The workshop addressed the question of which ones can be applied best in this context and how. Moreover, it explored extending the value of these methods by looking at ways to account for typical user problems with adaptive systems (e.g., privacy, reduced levels of predictability) in early phases of system development.

Evaluation. With regard to evaluation, one of the workshop's continuing aims is to uncover suitable evaluation methods and approaches for adaptive systems. At a more specific level of interest are the evaluation criteria that can be applied during the evaluation of sub-classes of adaptive systems and their underlying user models.

Experiences, problems and plans. Among the workshop's major goals has been to initiate a discussion among participants about user-centred design and evaluation practices. Towards this end, participants were encouraged to bring in the problems they encountered while employing user-centred activities, or to present the open issues in a design or evaluation approach that has yet to be carried out. There was also ample room for participants to share their insights regarding user-centred design or evaluation.

Presented Papers

The following papers, divided over the general themes, have been presented during the workshop:

Design. Venero et al. described a study aimed at evaluating different ways to represent and visualize user models, with three different representations and nine visualizations tested over two experiments. Gabrielli and Jameson compiled an overview of the factors that can lead to differences and changes in user's preferences concerning adaptive systems and discuss how these can be accounted for when employing user-centred design activities.

Evaluation. Tarpin-Bernard et al. introduced AnA-meter, an open-source system that enables evaluators to characterize and determine the degree of adaptation in personalized systems. A longitudinal user evaluation of an adaptive meta-search engine was presented by Van Velsen et al., who combined a system- and user-centred approach and demonstrated its merits. Finally, Yudelson and Sosnovsky showed how to utilize previously collected interaction logs in a post-hoc approach to the layered evaluation of alternative user models; this approach was applied to the evaluation of blended modeling of heterogeneous learning activities.

Experiences, problems and plans. In the final category, Tintarev and Masthoff discussed the problems they faced when evaluating the effectiveness of recommender explanations and presented the lessons they learned from overcoming them. To conclude, Santos et al., introduced a plan for using user-centred design methods to enrich a recommendation model to be used in a learning management system.

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