Attention Management in Ubiquitous Computing Environments

http://ac.aup.edu/roda/ubicomp07

Innsbruck - Sunday September 16
Workshop at UBICOMP 2007
9th International Conference on Ubiquitous Computing
Innsbruck, Austria 16-19 September 2007

Workshop Scope

One of the challenges of ubiquitous computing is the coordination of different devices so that their interventions with the user(s) take into account ongoing (inter)actions and avoid overloading their sensory systems. To this end, devices of different complexity levels must gain a coherent understanding of users' past and current (inter)actions, goals, preferences, social relationships, etc. in order to model users' attentional states. Attention awareness has the special target of minimizing cognitive load by addressing issues such as: interruption management / notification optimization, individual versus group interaction, just-in-time information selection. Whilst "disappearing", i.e. minimizing cognitive load, has been the chief objective of ubiquitous computing, we feel that true adaptation to human cognitive abilities requires a better understanding of the reactive, deliberative, social, and aesthetic processes controlling attention allocation and of how they can be supported by technologies. Improving such understanding is the primary objective of this workshop.

Topics of interest

Topics of interest include, but are not limited to:

- Models of human attention and their application to the design of ubiquitous computing environments;
- User modeling for attention support in ubiquitous computing environments;
- Interruption management;
- Management of attention in collaboration (individual versus group cognitive load optimization);
- Devices coordination aimed at attention management;
- Information tagging for attention management;
- Information visualization for attention management;
- Evaluation strategies and methodologies for attention aware systems in ubiquitous computing environments;
- Experimental measurements of system-induced cognitive load in ubiquitous computing environments;
- Special devices for attention tracking in ubiquitous computing environments.

Call for contributions

We would appreciate receiving expressions of interest with a tentative topic / title as soon as possible. See section "important dates" for deadlines.

We will accept participants on the basis of workshop submissions that should include:

- A position paper (max 2000 words)
- Three short senarios (max 500 words each) illustrating practical applications of the issues addressed in the position paper

The papers and scenarios will undergo a blind review process. At most 10 papers with scenarios will be selected for oral presentation in the morning of the workshop. Additionally 10 papers with scenarios might

be selected for inclusion in the workshop proceedings (however only the scenarios will be discussed at the workshop, see section "Workshop Format").

Authors of accepted contributions should submit a camera ready version by the date indicated in the "important dates" section.

Selected attendees will be invited to submit for review revised versions of their papers for a special journal issue. Given the multidisciplinary nature of the workshop, the journal to be approached will depend upon the topic areas covered by the position papers. We also hope to create a community of researchers working on different areas of attention management in ubiquitous computing.

Please forward the position papers and/or any question about the workshop to the workshop organizers:
Claudia Roda - croda@aup.fr and Mary Zajicek - mzajicek@brookes.ac.uk

Important dates

Workshop submissions:	until June 5th 2007
Notification of acceptance:	June 22nd 2007
Camera ready due:	July 1st 2007
Workshop:	Sunday September 16

Workshop format

To facilitate interaction, in advance of the workshop the organizers will analyze the selected scenarios, group them and identify particular attentional issues that arise. They will then develop discussion topics around these issues and collate them into a presentation which will be used to promote discussion. In this way the interests of participants are supported and a structure for discussion can be identified to facilitate group discussion during the afternoon of the workshop. The scenarios themselves will also provide a rich framework within which to discuss attention management in ubiquitous computing environments.

Workshop agenda
09:00 – 09:45 Introduction by organizers.
09:45 – 13:00 Selected Papers and Scenarios Presentations
13:00 – 14:00 Lunch
14:00 – 15:00 Scenarios presentations
15:00 – 17:00 Group discussion of papers and scenarios
(Coffee breaks for morning and afternoon as arranged)

Committees

Workshop organisers:
Claudia Roda - American University of Paris, Paris, France
Mary Zajicek - Oxford Brookes University, Oxford, UK

Program Committee (the list is not yet complete):
Elisabeth André - Universität Augsburg, Augsburg Germany
Danco Davcev - University of Skopje, Macedonia
Sonja Gievska -George washington University, Washington DC, USA
Eric Horvitz - Microsoft Research, USA
Aulikki Hyrskykari - University of Tampere, Tampere, Finland
Christel Kemke - University of Manitoba, Winnipeg, MB, Canada
Inge Molenaar - Ontdeknet, Amsterdam, NL
Thierry Nabeth - Insead - Calt, Fountainbleau, France
Kari-Jouko Raiha - University of Tampere, Tampere, Finland
Georgi Stojanov - American University of Paris, Paris, France
Julie Thomas - American University of Paris, France
Goran Trajkovski - South University, Savannah, GA, USA
Martin Wolpers - Katholieke Universiteit Leuven, Heverlee, Belgium
Sharon Wood - University of Sussex, Brighton, UK