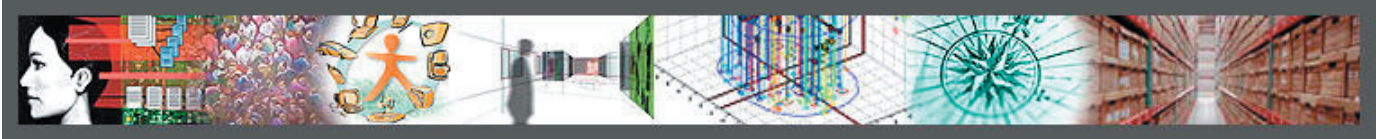


ECHISE2005

1st International Workshop on Exploiting Context Histories in Smart Environments

3rd International Conference on Pervasive Computing - PERVASIVE 2005 www.pervasive.ifi.lmu.de



CALL FOR PAPERS

<http://www.ipsi.fraunhofer.de/ambiente/echise2005>

Organizers

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Motivation

We are going to experience the diffusion of ubiquitous and pervasive computing technology into our everyday environments. The resulting interconnected collections of computational artifacts have to exhibit smart and coherent behavior in support of the users' activities and tasks across artifacts/devices, in order to be perceived as smart environments on the users' side.

As interactions tell stories, a promising approach to enhance the user experience in smart environments is to exploit recorded histories of the users' interactions in context (context histories for short). These histories can be used to support ubiquitous/pervasive computing applications with an enhanced understanding of the users' activities and interactions as they expand and develop over time. In addition, current contextual data is often imperfect and noisy and can be smoothed from the use of histories.

In more traditional computer use, interaction histories have been in use for quite some time. Interaction logs of evaluation tasks serve a detailed analysis. Histories of visited web sites are used to support navigation. Online shops offer recommender functionality based on interaction logs. Finally, interaction histories are sometimes used to infer user tasks. These and other applications can be enriched by integrating context sensing from even more sensors into the physical and digital world, e.g., also spanning across devices.

Exploiting context histories may, for example, result in less distractions, more adapted and coherent behavior of multi-computer setups, and better support in information management and search. The user could end up with a more supportive and comforting environment. At the same time, however, the collection, storage, management, and exploitation of context histories is a delicate issue, as privacy, informational self-determination, and data security are touched. In smart environments, there will be multiple users interacting with multiple and heterogeneous devices, some of them with little storage and computing power. How can we collect all the information needed? How does the data get synchronized between devices? And how does the user control and feel comfortable with that level of data being stored? In this workshop we want to bring together researchers to discuss the trade-offs of exploiting context histories for supporting user experiences with applications in smart environments. Several systems and approaches have already been proposed. We will set out to shape a common vision for this emerging field by identifying common requirements and issues.

Expected Audience

The workshop is directed towards researchers and practitioners who are both interested in dealing with interaction histories and pervasive computing. 10 to 15 participants will be invited based on a position paper submitted prior to the workshop.

Four to six graduate students will also be invited to participate in the workshop. Students are not required (but allowed) to submit a position paper. Students should, however, submit a two-page paper outlining their research interests and their motivation to participate in the workshop.

Submissions

The position papers are expected to contain a clear statement about added-values vs. risks of exploiting context histories to enhance user experience in ubiquitous/pervasive computing environments. They should clearly state their contribution and identified open challenges.

Each position paper should be around three to four pages according to the ACM SIGCHI formatting (<http://www.sigchi.org/chipubform>). Longer submissions will be considered as well. A submission should be complemented by a short bio of the author/s. Please email your submission to Thorsten Prante.

Topics

Possible topics for submissions must relate to context histories and include (but are not limited to):

- User activities that benefit from context histories (personal and group support)
- Detection and exploitation of relationships among information and context components
- Issues of inferring activities from context histories
- Issues of determining appropriate levels of granularity for working with context histories
- User experience of temporal ambient displays and other visualizations
- Issues of context recording and playback
- Enhanced situated support for user activities across physical and digital worlds
- User ability to author an experience
- New forms of support for search, navigation, and orientation
- Interactional information and knowledge management in context
- Aspects of sharing information from or based on context histories
- Support for reflective activities
- Summarization of ever increasing datasets
- How to evaluate such systems from a user perspective
- Combining multiple interaction histories
- Appropriate context modelling
- Storage, management, and dissemination of information from context histories
- Appropriate representation of information from context histories
- Smoothing of context data
- Social implications and social protocols
- Privacy, informational self-determination, and data security issues

Important Dates

February 23, 2005	Submission deadline
March 8, 2005	Notification of acceptance
April 15, 2005	Camera-ready version due
May 11, 2005	Workshop takes place in Munich, Germany

Contact

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