HomeSys 2013: Workshop on Design, Technology, Systems and Applications for the Home

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ABSTRACT
HomeSys 2013 will be an inspiring, interactive, cross-disciplinary workshop for anyone conducting research into technology in homes. This includes anyone building novel systems, applications, or devices for the home, or studying existing or novel technology use in domestic settings, or anyone else with an interest in the intersection between technology and the home. Attendance at the workshop will not be limited, anyone may register and attend. To ensure any interactive and enjoyable exchange of ideas during the workshop, we have 4 contribution types: Visionary Presentations, Reflective Presentations, Videos and Posters. To encourage interactivity and discussion, the workshop will have plenary sessions for visionary and reflective presentations, as well as other sessions which may include keynote, discussion or breakout formats, in addition to the posters and videos. The workshop organizers have considerable research experience in this area and past experience organizing workshops. We plan to do personal outreach to encourage participation as well as publicizing the workshop through traditional channels.

Author Keywords
Home, domestic, home networks, home technology.

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms
Algorithms, Design, Experimentation, Human Factors, Measurement, Performance, Security.

INTRODUCTION
Ubiquitous computing has often presented the future digital home as a mix of rich computing, networking and sensing infrastructure that seamlessly interacts with the inhabitants to enable new and enjoyable experiences, applications and

services. Today's reality, however, is far from that. The digital home has already migrated into many homes in a piecemeal manner. The home of today is a complex mix of heterogeneous technologies, operating with limited coordination, and certainly not offering the set of services originally imagined. Furthermore as the number of devices inside the home and their functionality continue to increase, the complexity involved in managing, troubleshooting and securing digital technology in the home will become a major overhead for users and a barrier to the adoption of new technology.

The goal of the HomeSys workshop is to bring together researchers and practitioners working on home technology research from the multiple disciplines of networking, systems, HCI, ubiquitous computing and security. We believe that UbiComp is an ideal conference at which to do this. HomeSys will provide a platform to share new ideas and experiences and to discuss the challenges and important questions posed by technology in the digital home.

HISTORY & EXPECTED ATTENDANCE
Last year Tom Rodden and Anmol Sheth organized HomeSys2012 (https://sites.google.com/site/homesys2012/) at UbiComp 2012. This workshop built on two successful ACM SIGCOMM HomeNets workshops (2011, 2010). Two of the proposed co-chairs attended HomeSys2012 and enjoyed the discussion and exchange of ideas between the attendees who represented a range of research disciplines. Given our interest in this research area and with the support of the HomeNets/HomeSys steering committee (past chairs), we propose to continue the workshop series. Our goal is to grow the size of the workshop from last year (~10 attendees in 2012) to roughly 20 to 30 attendees. We believe the changes we made to broaden the call for participation and open the workshop to attendees that do not submit papers will attract more attendees.

CALL FOR PARTICIPATION
HomeSys 2013 will be an inspiring, interactive, cross-disciplinary workshop for anyone conducting research into technology in homes.

This includes anyone building novel systems, applications, or devices for the home, or studying existing or novel technology use in domestic settings, or anyone else with an interest in the intersection between technology and the

home. Attendance at the workshop will not be limited, anyone may register and attend.

We will have four *optional* contribution types:

1) Visionary presentations, aka "help the audience think about homes in a new way". How will technology shape homes (and homes shape technology) going into the future? What trends in technology and in society will affect the course of this research area?

2) Reflective presentations, aka "help the audience think about how best to conducting research into homes". What new tools or techniques enable new research in homes? What lessons have you learned from past work that others can benefit from? Can you give an intro into other related fields of work that the UbiComp/CS community is relatively unaware of?

3) Videos. We invite videos showcasing your existing research (of any sort - new devices, new applications, user studies, ethnographies, etc). You may reuse videos (if you have copyright permission) that you have previously shown, if it is relatively new to this audience, and you may reuse a video that is submitted to the main track of UbiComp 2013. We welcome videos of demos.

4) Posters. We invite posters presenting work-in-progress, a valuable way to get interactive feedback for your latest projects. This can be the same poster as you've presented elsewhere, and can be concurrently submitted to the main posters track at UbiComp 2013.

Format
To keep the workshop interactive, we will use the "plenary" sessions for types of contribution which are designed to maximize discussion: visionary and reflective presentations (as above) as well as other fun interactive sessions (e.g. outrageous opinions, discussions, etc), and a breakout session. However we welcome other types of contribution (complete and in-progress research) via videos and posters.

For all of the paper types above, a formal paper submission of up to 4 pages is OPTIONAL. In other words, if you want to have a paper published in the UbiComp 2013 adjunct proceedings in the ACM digital library, you may submit one for review by the deadline below. But if you just want to present in the workshop, then you can also submit a proposal for participation that does not include a formal paper. All accepted formal papers will be presented in some fashion (e.g. speaking time, or poster, or video, as appropriate and decided by the chairs).

Submission details for optional papers:
For visionary and reflective presentations: up to 4 pages in ACM 2-column format (will include link to format).

For videos and posters: up to 4 pages in ACM 2-column format (link to templates), plus a draft version of the video/poster (need not be final)

Submissions should NOT be anonymized.

Submissions will be managed on RegOnline.

Submission deadline for optional papers: May 5 2013

Notification deadline: May 26 2013

Camera-ready deadline: June 16 2013

For presentations/videos/poster proposals not accompanied by a paper, please simply email <email address TBD> with a description of what you propose to present and in what format (optionally including e.g. draft slides/video/poster if available).

We hope you will join us in Zurich for an inspiring, interactive and enjoyable workshop!

PROPOSED SCHEDULE
Depending on the submissions we receive and solicit, we will run one or more talk sessions for visionary or reflective talks, as well as allocating time (e.g. an extended break) for posters, and having videos spread throughout the day. We may solicit a keynote to kick the day off, and are also thinking of ideas for breakout sessions, moderated discussions, and other ideas.

ORGANIZERS
The workshop organizers have past experience organizing workshops and considerable research expertise in home technology.

A.J. Bernheim Brush is a Senior Researcher at Microsoft Research in Redmond, Washington. A.J.'s research area is Human-Computer Interaction with a focus on Ubiquitous Computing and Computer Supported Collaboration (CSCW). A.J. is most well known for her research on technologies for families and her expertise conducting field studies of technology. Her current research focus is home automation (research.microsoft.com/homeos/). She was honored to receive a Borg Early Career Award in 2010. Her research has received 2 best paper awards and several best paper nominations. A.J. is General Co-Chair of UbiComp 2014, on the UbiComp Steering Committee, and the CRA-W board. She also serves regularly on Program Committees for many conferences including UbiComp, CHI, and CSCW.

James Scott is a researcher in the Sensors and Devices group at Microsoft Research Cambridge, UK. His research interests span a wide range of topics in ubiquitous and pervasive computing, and include novel sensors and devices, mobile

interaction, rapid prototyping, wireless and mobile networking, energy management, and security and privacy. Recent relevant research includes Microsoft .NET Gadgeteer (research.microsoft.com/gadgeteer) and PreHeat (research.microsoft.com/preheat). James received his PhD from the University of Cambridge in 2002, has served on PCs for conferences including UbiComp, Pervasive and MobiSys, and is currently chair of the steering committee for ACM UbiComp.

Sarah Mennicken is a Ph.D. student advised by Elaine M. Huang at the People and Computing Lab (ZPAC) in the Department of Informatics at the University of Zurich, Switzerland. She received her M.Sc. in Computer Science at the RWTH Aachen University, Germany under the supervision of Jan Borchers. For her Ph.D. research Sarah is interested in Ubiquitous Computing in general and home automation in particular. Currently her focus lies on understanding smart homes in their everyday context, how to improve intelligibility of such technologies and how to design interfaces for more natural means of controlling them.

CONCLUSION
We think HomeSys will be a great workshop. As frequent workshop attendees and past workshop organizers we are excited to make HomeSys 2013 an exciting, interactive and through-provoking and educational place for attendees working in the area to come together and exchange ideas.

ACKNOWLEDGMENTS
We thank the past organizers of HomeSys 2012 and HomeNets in 2011 and 2010.

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