Designs for Home Life

A. J. Brush
Microsoft Research
One Microsoft Way
Redmond, WA 98052
ajbrush@microsoft.com

Leysia Palen
University of Colorado
Computer Science &
Inst. of Cognitive Sci.
430 UCB
Boulder, CO 80309
palen@cs.colorado.edu

Laurel Swan
Brunel University
9 Union Square
London, N1 7DH
UK
lmswan@blueyonder.co.uk

Alex S. Taylor
Microsoft Research
7 J J Thomson Ave
Cambridge, CB3 0FB
UK
ast@microsoft.com

ABSTRACT
In this Special Interest Group (SIG) we intend to consider the increasingly popular area of interactive systems design for the home. Aiming to incorporate a wide range of perspectives, the SIG's participants will map out the growing number of research and development programs in the area. Particular emphasis will be given to how *home life* has been characterized in various programmatic visions and how the CHI community might best capitalize on these characterizations. The importance of an understanding of home life to inform design and future directions in this area will also be reflected on. This SIG is intended to appeal to a broad cross section of the CHI community, ranging from practitioners and developers to computer and social scientists.

Author Keywords
Home life, home-based IT, domestic technology, home-based design.

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

INTRODUCTION
In recent years, the home has been recognized as a credible site for introducing advanced, interactive information technologies (IT). A growing number of research programs have developed PC- and handheld-based solutions for activities that occur in the home, as well as grand visions of fully equipped 'smart' homes. Together, these programs have explored a range of applications and issues for home-based IT, including parental-control features for consumer software; family refrigerator displays; messaging and other forms of internal and external communication; news-gathering; shopping; television viewing and general entertainment; support for older people; etc.

In light of the increased attention given to interactive system design in the home, the question to be asked is not whether these technological innovations deserve merit—on a case-by-case basis they could, conceivably, contribute much to a household. More fundamentally, a central issue is whether the characterizations of the home implied in such visions adequately cover the range of concerns the CHI community might address in designing interactive systems for the home. Lying at the heart of this matter is the unresolved status of what exactly constitutes home life. With differing and sometimes opposing visions put forth, it would seem the character of home life is still very much up for grabs amongst the CHI community. Can CHI's contribution to the home be boiled down to kitchen appliance interconnectivity, or ambient multi-media experiences? Do successful innovations for the home depend upon an understanding of how people coordinate with each other and their surroundings: in how they appropriate the kitchen table or staircase in arranging their mail, or organize their social lives in lists or across their fridge doors?

Of course, such over simplifications are posed here to highlight the differing characterizations of the home implied in this area. The question remains, however, as to whether the CHI community and ultimately people's home lives would benefit from a more thorough and coherent characterization. Past contributions from studies of work practice would suggest that more complete characterizations of the subtle and complex interplays between people, technology and their environments are crucial in better informing design [2, 3, 5]. Recent work in the area of mobile communications and computing has also helped to expand CHI's scope beyond the workplace. A thorough consideration of home life would thus appear to be the natural next step in our progression to develop technology that has a thoughtful and useful place in society.

Indeed, in this budding area of study, there are arguably considerable opportunities to refine and inform our perspectives, just as there were for the CHI community in designing for the workplace. As a case in point, one aspect of home life that seems to have been seriously underrepresented (with some exceptions [1, 6, 7])—perhaps at the cost of focusing on the more glamorous leisure and entertainment segment—is the considerable effort and time put into the practical business of managing and running a household's events, movements, routines, etc. This limited attention paid to a substantial aspect of home life and the narrow

Copyright is held by the author/owner(s).
CHI 2005, April 2–7, 2005, Portland, Oregon, USA.
ACM 1-59593-002-7/05/0004.

focus given to specific experiences obscures how activities are bound up with one another, and how our understanding of what "home" is comes to be constituted through an assemblage of multifaceted and heterogeneous people, events, actions, things, and even places. "Home", as it were, transcends place and involves an amalgam of activities in a way that has significant implications for technology: "home" exists in the so very mundane grocery-shopping lists pinned to bulletin boards and used while at the store. Even the quick call to the plumber, while at work, falls under the auspices of "home." Such a contemplation of how home life comes into being through the competing tensions and rhythms of daily life [see 4] would seem critically important in designing for the home.

With these challenges in mind, in this SIG we aim to have attendees contemplate the fundamental character of the home and the role for CHI in this domain. In particular, we will reflect on the CHI community's role in advancing a research program directed toward studying and building interactive solutions for the home.

ISSUES TO BE ADDRESSED

During the SIG we will consider but not be limited to the following broad questions:

- What characterizes "home" and "home life?" Is it a place? A group of people? A set of responsibilities? What existing research from other intellectual traditions should we draw from to flesh out this answer?
- What distinguishes the home from other possible sites of technological innovation?
- What assumptions are implied in the common characterizations of the home?
- How do the various characterizations of the home sit with the CHI community's goals; which are most useful?
- How else might the CHI community attempt to talk about home life so that it properly addresses underrepresented issues such as the routine 'work' done in the home, childcare, divisions of labor, aging, etc.?

ATTENDEES AND INFORMAL SCHEDULE

Key questions such as these have been deliberately raised to attract a wide-ranging audience. With considerable combined experience in the areas of consumer-oriented research and development, and studies of home life, the SIG's organizers aim to attract a particularly broad cross-section of the CHI community, including designers, developers, technologists, social scientists etc. As well as directly inviting established members in the area, effort will be made to attract attendees with varied experiences who might promote fresh thinking or, possibly, a re-articulation of the problem. To attract attendees, relevant distribution lists will be targeted alongside the publishing of a purpose-designed website.

Adopting a somewhat experimental format, the intended schedule of the SIG has been devised in order to encourage maximum participation. The schedule, open to alteration, will look as follows:

20 mins Introductions and presentation of the SIG schedule to attendees.

20 mins Attendees will be asked to contribute to a list of possible characterizations of home life.

30 mins A "map" will be made of these characterizations that relates them by particular dimensions or affinities. The map will be populated with current IT/R&D efforts and identify areas of ongoing work, as well as areas of opportunity. Two dominant characterizations—ideally one that is well represented within CHI and one that is not—will be further elaborated by participants with experience in the areas. As a contingency, the SIG's organizers will have prepared set pieces to cover possible characterizations of home life.

20 mins Organizers will lead a discussion about next steps to the SIG, including the possibilities of a workshop, website or distribution list.

GOALS

A primary goal of the SIG will be to explore different possible characterizations of the home and home life as well as raise the CHI community's awareness of the different ways in which we could proceed in designing technology for the home. A related goal is to build community among CHI attendees working on technology for the home.

A longer-term goal of the proposed SIG is to set the stage for a follow-up workshop where interested attendees can express their positions in more detail. It is hoped this might help in laying out pointers towards a more thorough articulation of the CHI community's role in studying and designing for the home.

REFERENCES

1. Crabtree, A. The social organization of communication in the home, *Proc. Conference of the International Institute of Ethnomethodology and Conversation Analysis*, (2003).
2. Heath, C. & Luff, P. Documents and professional practice: 'bad' organizational reasons for 'good' clinical records, *Proc. CSCW '96*, ACM Press, (1996), 354-363.
3. Hughes, J. A., King, V., Roden, T., & Andersen, H. Moving out from the control room: ethnography in design, *Proc. CSCW '94*, ACM Press, (1994), 429-439.
4. Nippert-Eng, C. E. *Home and Work: Negotiating Boundaries Through Everyday Life*. University of Chicago Press, Chicago, IL, 1996.
5. Palen, L. Social, individual and technological issues for groupware calendar systems, *Proc. CHI '99*, ACM Press, (1999), 17-24.
6. Sellen, A., Hyams, J., & Eardley, R. The everyday problems of working parents: Implications for new technologies, HP Laboratories, Bristol HPL-2004-37, (2004).
7. Taylor, A. S. & Swan, L. List making in the home, *Proc. CSCW '04*, ACM Press, (2004), 542-545.