
Investigating new user experience challenges in iTV: mobility & sociability

Dr. Anxo Cereijo Roibás

SCMIS
University of Brighton
Watts building, BN2 4GJ, UK
a.c.roibas@brighton.ac.uk

David Geerts

Centre for Usability Research
E. Van Evenstraat 2A
3000 Leuven - Belgium
david.geerts@soc.kuleuven.be

Prof. Elizabeth Furtado

Fundação Edson Queiroz
Universidade de Fortaleza
Av. Washington Soares, 1321
CEP 60.811-905 Fortaleza, Brasil
elizabeth@correio.unifor.br

Licia Calvi

Centre for Usability Research
E. Van Evenstraat 2A
3000 Leuven - Belgium
licia.calvi@soc.kuleuven.be

Abstract

This workshop is a discussion platform to unfold the design of future interactive television (iTV) scenarios characterized by pervasive communications in contexts of entertainment, work and government, with special attention to the social character of the usage of these media and the implications for interface design. In particular, it will focus on the use of handhelds and other advanced interfaces (e.g. Interactive Public Displays, spectacles) to extend the iTV social experience outside the home boundaries and to enhance users' communication in diverse contexts. The workshop will look at how innovative ethno-methodologies, collaborative design approaches and advanced evaluation techniques can lead to the creation and representation of feasible and relevant future communications scenarios that are characterized by a strong collaboration and interaction between users such as mobile iTV. Workshop organizers will also open up a debate around how to identify suitable applications for the above scenarios as well as related new forms of content and novel interaction models that support social use.

Keywords

Pervasive communication scenarios, user experience, pervasive iTV, novel interactive systems, sociability.

ACM Classification Keywords

H.4.3 Communications Applications: miscellaneous, H.5.2 user Interfaces: Theory and methods, H.5.1 Multimedia Information Systems: interactive TV.

Introduction

Becoming interactive, TV is replacing the traditional 'passive' TV platform through the increase of active participation by the viewers, substantially influencing people's experience with television and their TV-related social behaviour. Users' adoption of powerful handhelds with multimedia features together with an increasing interoperability between platforms (making communications pervasive) is resulting in expanding the iTV consumption beyond the domestic context (mobile iTV is already emerging in Europe, USA, Canada and South Korea). Critical user experience issues in future development of iTV (and specifically when it becomes mobile or pervasive), go beyond usability and extend into the broad social context. Sociability is the core parameter when assessing the impact of these interfaces on users' communication and collaboration. It is a measure to see if an interface supports social interaction well in applications meant for communication and collaboration. But sociability still needs to be operationalized, like usability already is, in order to help developers design social applications.

During the last few years we have been witnessing how industry continuously failed to understand and forecast users' needs and expectations in sectors which are normally characterized by innovation-driven

approaches (such as telecommunications and iTV).

Many companies developed mobile devices and products/applications for iTV using inappropriately ICT resources as they increased the demand for paradigms that imply massive modifications in users' habits and perceptive/cognitive overload. On the other hand, new challenges such as pervasive communications systems (interoperability between handhelds, i-TV, PCs, in-car-navigators, smart office and the smarthouse), tangible computing (electronic products, intelligent objects and other digital-physical hybrids) and intelligent environments (spaces and installations mediated by information and communications technology) are currently not considered at industrial levels.

Consequently, the market's response to investments in developing new products and applications (e.g. mobile TV broadcasting, iTV) has not been positive to date. Rapid changes in users' habits and technological advances have generated enormous uncertainties and call for innovative research and development methodologies. As the variables that need to be taken into account have a diverse nature, a cross-disciplinary approach that includes human factor studies, behavioral theories, socio-cultural and economic trends, technological developments and emerging technologies markets, interactive arts, product design, etc. is necessary. Moreover, several techniques must be combined – collaborative and user-centered approaches that focus on users' cultural, social, behavioral and ergonomic backgrounds.

Objectives

The workshop aims to build a multidisciplinary community to research the future use of pervasive interactive television applications on devices such as mobile phones, PDA's and handheld audio-video

displays in a social context. This community will share knowledge of current and future device designs, user interfaces, digital content, usage scenarios and research methods.

This workshop addresses the following issues:

- suitable methodologies and techniques to design scenarios which are characterized by the intersections between mobile devices and iTV
- analyzing crucial issues related to pervasive contexts
- understanding how nomadic cultures affect everyday life
- unfolding experimental research methodologies to understand user-experience in future pervasive communication scenarios
- sharing a roadmap of feasible scenarios and representative applications for pervasive iTV
- investigating possible interactive models in mobile iTV;
- exploring the potential of novel interfaces design within advanced and pervasive communication scenarios for entertainment, work and government
- accounts of the particular challenges of studying and designing for sociability in social electronic media
- understanding and supporting sociability in social electronic media
- evaluating sociability with user based evaluation or expert based evaluation.

Audience

The workshop is intended for practitioners as well as researchers. This includes managers of HCI projects working in the iTV, web and mobile industry (telecom

companies, device manufacturers, broadcasters, service and content providers, etc.); industrial designers; user experience architects; human factors practitioners; interface evaluators and testers; HF academics, researchers and students with interests in human computer interaction; designers in general and new trends consultants. Although no particular skills are required, basic knowledge of HCI design issues is recommended.

Before the Conference

A website has been created in order to provide information about the workshop, a submission tool and links to related material. This website can be found at <http://soc.kuleuven.be/com/mediac/chi2006workshop/>. Accepted position papers and other pre-workshop materials will be made available there to participants, so the workshop can focus on the discussion, and reflection on the subject is stimulated before the workshop.

Format

The workshop is designed as one-day moderated group discussions.

It will be organized into two sessions covering the main crucial points of the workshop: the first session will address the analysis of the new trends and novel interaction models in mobile and pervasive iTV as well as the new research methodologies and techniques for making the scenarios; the second session will focus on the design, support and evaluation of sociability in domestic, mobile and pervasive iTV. Each session will focus around a few common subthemes, identified by the moderators based on the submissions. At the start of each session, the moderators will highlight the key

points of submitted papers that will be useful for the whole group debate. They will actively interact with the audience to stimulate discussion around these key points. Each discussion should end in a clear statement that can be used for the poster. The last part of the workshop will be devoted to produce a final poster to be shared with the broader CHI community.

The topics of Session 1 include, but are not limited to:

- technological, cultural, political, and economic dimensions of future pervasive and interactive communication systems;
- emerging nomadic societies and related socio-cultural trends;
- new challenges in pervasive communication systems: interoperability between interfaces, tangible computing, intelligent environments, etc;
- innovative research approaches (including the use of Cultural Probes) and the creation of feasible and relevant future scenarios;
- taxonomy of radical applications (broadcast/narrowcast, context-aware, etc);
- patterns for smart & malleable content;
- advanced interaction models (immersive environments, humanising interfaces, haptics, etc);
- advanced evaluation techniques for pervasive iTV applications.

The topics of Session 2 include, but are not limited to:

- challenges of analyzing and designing for sociability in social electronic media
- theorizing sociability in home, mobile and pervasive iTV
- understanding and supporting sociability in

social electronic media

- transferring interaction patterns from other social media like (online) games and the internet to iTV
- technologies for social user experiences in iTV
- New and emerging iTV communities
- evaluating sociability with user based evaluation or expert based evaluation.

Participation

Workshop candidates are requested to send a position paper (no longer than 4 A4 pages) about a research or study (to be included in one of the sessions described above) they have been involved with before the 15/12/05 via the website <http://soc.kuleuven.be/com/mediac/chi2006workshop/>.

Participants will be selected on the basis of the relevance of their work and their interests and familiarity with the topic.

Deadlines

- 15/12/2005 Workshop submission deadline.
- 15/01/2006 Feedback to authors.
- 31/01/2006 Authors submit to organizers camera-ready versions of papers.
- April 2006 Workshop at CHI2006.

Dissemination

During the workshop a poster will be produced in order present a summary of the results at the conference poster session. Workshop organizers will commit to organize a Special Interest Group (SIG) at the conference. The workshop organizers will commit to the publication of a revised version of the papers presented as a special issue of a journal such as Springer's Personal and Ubiquitous Computing.