
Social TV as Supple Interface

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Abstract

In this paper we present our recent work on the design and implementation of technology for group TV watching and suggest a general discussion of Social TV systems as supple interfaces.

Author Keywords

Social TV; Group TV Watching; Computer-Supported Cooperative Work; Computer-Mediated Communication; Media Space.

ACM Classification Keywords

H.5.2 [Information Interfaces and Presentation]: User Interfaces — Graphical User Interfaces, User-Centred Design; H.5.3 [Information Interfaces and Presentation]: Group and Organisation Interfaces — Computer-Supported Cooperative Work.

Introduction

Social TV systems supporting group TV watching face challenges for the design and evaluation of interfaces, which have similarity and relevancy to supple interface.

Supple interfaces 'aim to build richer connections between people as well as deeper emotional experiences' and 'require an emphasis on the quality of experience rather than outcome, and often involve subtleties of the dynamics of engagement with such interfaces and with others through these interfaces' [3].

Social TV can be defined as: 'the increasing integration of television and computer technology to support sociable, computer-mediated group viewing experiences' [4, p. 251]. Social TV has a huge potential for making the group viewing experience of TV

spectators more enjoyable by providing novel means for advanced social interaction among spectators.

We want to illustrate our perspective on Social TV in the brief scenario described below (cf. also Figure 1):

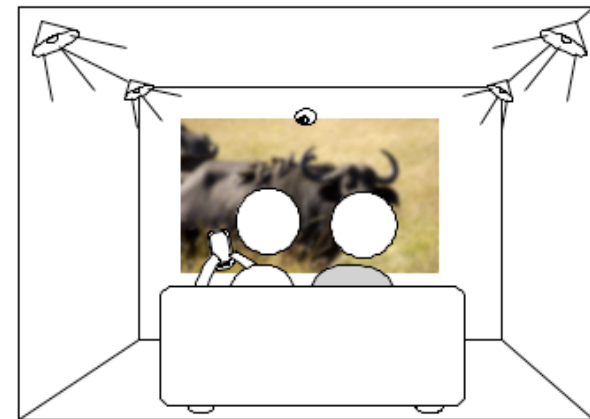
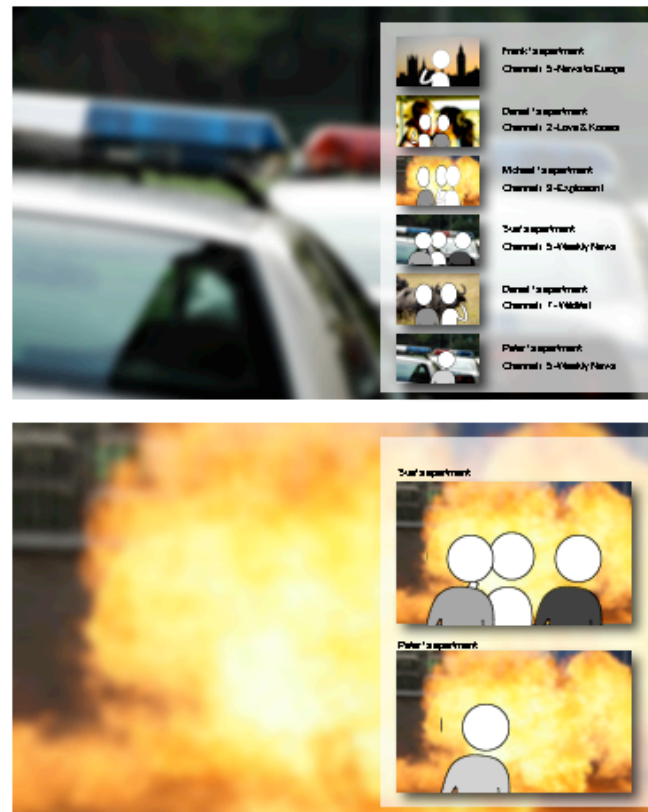


Figure 1. Mock-ups of group TV watching: co-presence of remote spectators while watching TV (top left); communication with remote spectators while watching the same TV show (bottom left); flexible adaptation of settings to groups of co-located spectators.

Peter wants to relax and turns on his TV set and activates a buddy list, which shows a list of all his friends who are online and watching TV at their homes on the right side of the TV screen and (cf. Figure 1, top left). Peter sees that a group of his friends watch the news in Sue's apartment, and he asks them via a short text message if they want to watch a movie together. They agree, but first want to finish watching the news.

So, Peter tunes in to the news and is presented a screen with the TV news as well as on the right side of the screen a video window showing his friends in Sue's apartment and another video window showing himself (cf. Figure 1, bottom left). As a discussion about some political topics arises the platform adapts and lowers the volume of the news to allow a better conversation.

Meanwhile, Peter gets a notification from his buddy list, which is still running in the background, that his friend Paul wants to come over to visit him in his apartment. After Paul arrives the friends in both places—in Peter's and in Sue's apartment—watch a movie together. In order to increase the immersion and the feeling of togetherness the system now tries to match the lightning settings in the two rooms. It also adapts the TV settings like volume, luminance, and so forth in order to best suit the personal preferences of all viewers (Figure 1 on the right side shows this flexible adaptation of settings to groups, including a device on top of the screen capturing the present persons).

As the above scenario exemplified, Social TV systems provide sophisticated support for group TV watching, yet stay in the background—so TV spectators can focus on the TV shows and the other spectators rather than on the technology *per se*.

Social TV in a Cooperative Media Space

In the workshop we would like to report on the Cooperative Media Space for Social TV (CoMeST)—a context-aware ubiquitous environment allowing natural interaction beyond traditional graphical user interfaces and supporting easy social interaction within co-located groups of users and among distributed groups, in scenarios of group TV watching like the above.

In order to support non-intrusive social interaction, information about the current activities of the users, their locations in space, their social environments, and their availability for conversations and for watching TV is needed. Sensors capturing various data allow for inferring about users and users' context states. Through actuators the environment can support the users in their specific situation and balance between the needs of different users.

The Cooperative Media Space for Social TV (CoMeST) is based on two major technical platforms developed at our lab: The Platform for Research on Instant Messaging Infrastructures PRIMI has been developed for the exploration of novel concepts in the domain of instant messaging with focus on easy support of social interaction in distributed groups [2]. The PRIMI-AV extension of PRIMI supports text, audio, and audio-video chat. A topic-based communication mechanism allows users to join a topic-based conversation using different media. And Sens-ation is a service-oriented platform developed to free developers of context aware environments from technical constraints and details of sensors and actuators. In Sens-ation sensor values can be accessed from any location and various applications in nearly real-time, while a history of all earlier sensor values is provided [1].

Conclusions

In this position paper we described group TV watching and introduced the environment we are currently developing. We could only address some issues.

In this workshop we would be particularly interested in discussing conceptual results and ideas of social interaction emerging in co-located and distributed hedonic group use of broadcasting media as well as technical issues of developing base technology for these settings. Such a discussion could particularly clarify if the title 'Social TV as Supple Interface' can be verified and includes questions concerning similarities and differences of the rich connections between users and their emotional experiences with supple interfaces in general and with Social TV systems in particular. And it could stimulate an exchange on the design and evaluation experience of such interfaces and systems.

Biographical Information

Tom Gross is associate professor for Computer-Supported Cooperative Work and head of the Cooperative Media Lab at the Faculty of Media of the Bauhaus-University Weimar, Germany. His research interests include Computer-Supported Cooperative Work, Human-Computer Interaction, and Ubiquitous Computing. From 1999 to 2003 he was a senior researcher at the Fraunhofer Institute for Applied Information Technology FIT in St. Augustin, Germany. He holds a diploma and a doctorate degree in Applied Computer Science from the Johannes Kepler University Linz, Austria.

Acknowledgements

I would like to thank the members of the Cooperative Media Lab—especially Tareg Eglá, Mirko Fetter, Christoph Oemig, and Thilo Paul-Stueve—for inspiring discussions on the concepts and implementation of our platforms.

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