

User Experience in TV-centric Services: What to consider in the Design and Evaluation?

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ABSTRACT

The purpose of this tutorial is to motivate researchers and practitioners to think about the challenging question how to design for and evaluate user experience in TV-centric services. There is no common understanding of user experience yet, but a lot of different approaches and definitions (e.g. [1][2][3][4]). In particular, when trying to understand and address user experience in the design and development process of new TV-centric systems or services, clear guidelines are often missing. Within this tutorial, we provide not only a state-of-the-art overview on user experience but want to make a first step towards a better understanding on this concept in the EuroTV community.

Categories and Subject Descriptors

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

General Terms

Design, Documentation, Human Factors.

Keywords

Implications for Design, Evaluation, TV-centric Services

1. INTRODUCTION

The goal of this tutorial is to give the participants an overview on lessons learned and best practices in the design and evaluation of user experience in TV-centric services. The focus will be to bring concrete examples and to outline some main implications for design and evaluation, such as:

When and how to involve users? How to avoid user overload? How to translate user feedback into requirements for designers? How to obtain the best results on conceptual designs and prototypes from respective target groups?

Our main focus is on user experience, as a major goal of design and development activities in research and industry. Usability is no longer the only aspect to be considered, but also the user experience, which consists of several factors, such as fun, motivation, emotion and sociability. At the end of this half-day tutorial, the participants should be able to draw major conclusions and understand the implications to consider in the design and evaluation of TV-centric services (possibly on TV, PC or mobile) in a user-centred design process.

As tutorials should follow an interactive and participative approach, we will provide the participants with some initial input

founded on our expertise on the above questions, followed by an interactive discussion on the participants' thoughts. Based on selected use cases or systems we will prepare some provocative statements on user experience design and evaluation to elicit views and responses from the participants. For example, NDS will present the Unified EPG (Oasis) system and the new Snowflake system, designed and evaluated towards user experience aspects in laboratory environments as well as in the field. A live presentation of Snowflake, which combines TV, PC and mobile into one platform, is possible on site. Thereby the tutorial ensures a practical focus based on a common theoretical and empirical basis.

2. AUDIENCE

The tutorial aims to bring together researchers on User Experience from a scientific and industrial background. To ensure the reachability of these two diverse audiences we combine scientific and industrial competence and expertise in the organizing team of this tutorial.

Target participants are in particular designers of TV-centric services, as well as researcher concerned with the evaluation of such services. Their major goal is to provide users with the optimal experience when engaging with an interactive system. The tutorial aims to attract both experienced designers and researchers around the field on User Experience, but also affords newcomers a clear overview at what is going on in research and industry with regard to design and evaluation of interactive TV-centric systems.

3. SCHEDULE

The tutorial is foreseen as a half-day event, combining theoretical and empirical parts as well as interactive hands-on exercises. In the first part of the tutorial we will present a comprehensive background on the topic and stimulate an interactive discussion. The participants will have the opportunity to apply and internalize this knowledge and share their own expertise in a hands-on exercise in the second part of the tutorial. The overall goal of this combination is to learn from each others' experiences based on clearly defined topics and guiding questions.

09:00 – 09:30: What is and Why to care about User Experience?

- Understand User Experience
- Design for User Experience
- Evaluate User Experience

09:30 – 10:00: TV-centric Services – Practical Examples

- Lessons learned from UNIC project
- Lessons learned from CITIZEN MEDIA project
- Implications for Design & Evaluation

10:00 – 10:30: Coffee Break

10:30 – 12:00: Interactive Session

- Hands-on Experiences with selected Examples
- Discussions in Sub Groups based on pre-defined Topics, such as: Design for User Experience? Evaluate User Experience? Constraints and Challenges for TV-centric services? New methodological approaches (playful and creative methods and techniques)

12:00 – 13:00: Plenary Discussion & Conclusions

- The most important conclusions from the previous discussions in the sub groups (5 bullet points) should be presented and discussed in a final plenary.
- Overall Conclusions summarized by the organizers with regard „What to consider in the Design and Evaluation of TV-centric Services?“

The schedule provides a framework for gathering a better understanding of user experience research around TV-centric services and a forum to elaborate on and share individual knowledge with other participants from research and industry.

4. INSTRUCTORS

Marianna Obrist is Assistant Professor in the HCI & Usability Unit of the ICT&S Center at the University of Salzburg. She holds a doctoral degree in Communication Science from the University of Salzburg. The focal point of her research lies in user-centered design methods, and in particular the user involvement into the development of new products/systems. She is involved in several research projects concerned with the study of user requirements and the evaluation of user experience and acceptance for iTV, IPTV (i.e. iiTV@home, iTV 4 all, CITIZEN MEDIA). She has co-organized a workshop at CHI'07 and a Special Interest Group at CHI'08, and is recently co-organizing a workshop on social media at the NordiCHI08 conference. She was part of the organization team for the MobileHCI 2005, ACE 2007, and is recently conference co-chair for EuroITV 2008.

Hendrik Knoche is finishing his PhD at University College London in computer science in the Human Centred Systems Group. He holds a Diploma in computer science from the University of Hamburg. His latest research and thesis focus on Quality of Experience (QoE) in mobile multimedia services. He has looked into beneficial trade-offs between QoE and economic constraints to deliver satisfying mobile TV experiences. Hendrik has worked in industry as a consultant in information architecture, mobile services (Nokia, Vodafone, Sport1) and research projects investigating distributed collaboration and TV-centric services. He is on the program committee of EuroITV, uxTV and the CHI'09 workshop on mobile user experience and recently organized a workshop on user experience in TV-centric services.

Damien Alliez is Engineer with Multimedia Network Specialization degree. He has been working as consultant for Lucent Technologies (EMEA CTI products marketing manager) in 1998, for GEMPLUS (Telco and Network infrastructure definition and installation) in 1999 and for CANAL+ Technologies (System engineering, design and development (HP-UX), installation and integration of a Mail solution in a terrestrial Pay TV environment) in 2000. He joined NDS France in 2000 as technical project manager. Specialized in Digital TV Head-End architecture (satellite, terrestrial, cable, IPTV) and after managing several operational projects, he is now responsible for the collaborative research projects and his company representative in several standard bodies like DVB and ITU-T. He is currently chairing the DVB IPI Home Network group

5. Related Experiences & Publications

The instructors of this tutorial have been actively involved in the previous EuroITV conferences, as organizers, presenters and exhibitors. Some selected publications are listed below outlining the instructors' field specific experience:

- **Alliez, D.** (2008). Adapt TV Paradigms to UGC by improving social networks. In Adjunct Proc EuroITV 2008, 29-30.
- Boccolini, G., **Knoche, H.**, Luise, M., Merour, J.-M., Vignaroli, L. (2008) Broadband interactive services provided through TV-centric technologies via bidirectional satellite connection. In Adjunct Proc. EuroITV 2008.
- **Knoche, H.**, Sasse, M. A. (2008) Getting the big picture on small screens: Quality of Experience in mobile TV. In Ahmad, A. M .A. & Ibrahim, I.K. (eds.) Multimedia Transcoding in Mobile and Wireless Networks, Chapter 3, pp. 31-46, Information Science Reference.
- **Obrist, M.**, Bernhaupt, R. & Tscheligi, M. (2008). Interactive TV for the Home: An Ethnographic Study on Users' Requirements and Experiences. In International Journal of HCI, Vol 24, 2 (2008), 174-196.
- **Obrist, M.**, Bernhaupt, R., Beck, E., & Tscheligi, M. (2007). Focusing on Elderly: an iTV Usability Evaluation Study with Eye-Tracking. In: Cesar, P., Chorianopoulos, K., Jensen, J. F. (Eds.). Interactive TV: A shared Experience. In Proc.EuroITV 2007, 66-75.

6. REFERENCES (Selected)

- [1] Forlizzi, J. & Battarbee, K. (2004). Understanding experience in interactive systems. In Proc Designing Interactive Systems 2004, NY: ACM, 261.
- [2] Hassenzahl, M., & Tractinsky, N., (2006). User Experience - a research agenda. In Behavior & Information Technology, 25(2), pp. 91-97.
- [3] Karapanos, E., Hassenzahl, M., Martens, J-B., (2008). User Experience Over Time, Work in Progress, In: Proc CHI 2008, ACM, New York, USA, pp. 3561-3566.
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