Chapter VIII
Methods for Involving Users in the Development of Social Interactive TV: Enhancing Usability and User Experience in Non–Traditional Environments

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ABSTRACT
Applications for interactive TV (iTV) addressing social aspects will only be successful, if the intended user and user community is taken into account during the development process. Existing methods for evaluating usability and user experience aspects of social interactive TV applications are not really enough to address and focus on the broad range of factors related to social user experience. This chapter presents various forms of user-centered methods enhancing usability and user experience aspects of interactive TV applications in general. Giving an overview on currently used user-centered methods to enhance and evaluate usability and user experience, some selected methods are presented for early and late development stages, reflecting the peculiarities stemming from the non-traditional environment the applications are used in—the home. The chapter will show how the methods can be adopted to focus more precisely on social aspects, especially social user experience. It enables the reader to get an overview on currently used user-centered methods in interactive TV and to learn about benefits and shortcomings of these methods as well as how to choose appropriate methods for their own purposes.
INTRODUCTION

Usability and user experience have become a buzzword in the interactive TV (iTV) industry. As new forms of iTV services are emerging, including applications like live-chatting during watching TV, exchanging personal media content like private home movies via internet, or writing emails, the usability and in general the overall user experience has become a main focus during its development. From the users perspective this kind of applications is difficult, complex and sometimes time-consuming. Navigation within the iTV content and usage of several applications (maybe just for a few times per year) tempt the user to be way more active than in the past. Sometimes users even have the general user experience, that their TV set is no TV set any longer but a time consuming, complex form of a personal computer, instead of an entertaining and relaxing, fun-oriented entertainment device.

Even though, people have always been social in front of the TV by discussing the TV program with other household members, it is still unclear how successful social iTV applications will be for e.g. talking on the phone or playing a game while watching program. Both, usability and user experience aspects, have to be addressed when designing and developing social interactive TV.

Usability is typically defined by three factors: how effective, how efficient and with what level of satisfaction users can perform their tasks (Dix, Finlay, Abowd, and Beale, 2004). A high level of usability is typically achieved using a user-centered development process, developing the product in iterative steps with various forms of evaluation at each development stage. Results of the evaluations are typically informing the further development of the product, system or service. If users are able to perform a task within a certain amount of time, with only few errors and if they are overall satisfied when using the product for their tasks, the system is said to be usable. But usability is just one aspect. Users of a social interactive TV application are using the product to be entertained, to relax, to have fun, to forget about the real world, to interact socially and to have special forms of experiences that go way beyond simple usability. A good example to make the distinction between usability and user experience a bit more clear is the following: Sitting in front of the interactive TV system, a user is playing a game with two of his friends. The goal is to cooperatively solve a game, simply answering questions. The goal can only be achieved if all of the three players reach a certain number of solved questions. The social iTV game would be usable if each user was only given a dialogue box asking if they want to solve the game. If the user answers yes—the game is won. What a bad experience for playing a social game! The user experience of the game lies within solving a number of sometimes difficult questions, trying to figure out where to go, what to do, and exploring the social structures between the players and how they co-operate during playing their cooperation during the game: when is it necessary to rely on the other players? When would it be beneficial to solve a quest alone? The players will perceive a new form of experience: social user experience.

User experience of social iTV games, and more general of iTV systems, is different from the concept of usability. Following the fact that a number of qualities of a product go beyond the instrumental aspects of product use and usability, user experience research has evolved (Karapanos and Hassenzahl, 2008; Buxton, 2007; Hassenzahl, 2006). User experience is a broadly defined term, including attainment of behavioral goals, satisfaction of non-instrumental (or hedonic) needs, and acquisition of positive feeling and well-being. Neither a universal definition of user experience nor a cohesive theory of experience yet exists that can inform the Human-Computer Interaction (HCI) community on how to practically design for and evaluate user experience. Researchers are still looking for an adequate and overall definition of user experience (Law, Thora, Hassenzahl,
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