Chapter 9

Personalizing the TV Experience: Vocomedia – A Case Study from Interactive TV

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ABSTRACT

Personalized services and products are only successful when the usage context is taken into consideration. For interactive TV services, where usage is typically taking place in a living room, the question on how to develop an interaction technique to enable personalization is central. Based on an extensive literature review a set of requirements for personalized iTV services was developed. Following these requirements, a case study from interactive TV, called vocomedia, shows the development of an interaction concept for interactive TV supporting personalization by using a fingerprint recognition.

INTRODUCTION

Interactive TV (iTV) is currently one of the fastest changing media in terms of personalization. In the last 40 years TV was seen as a medium typically addressing the masses. But this mass medium is changing. New (digital) TV offers start to change the media landscape enabling users to experience new forms of interactivity in front of the TV. The traditional viewing behavior is starting to change: watching TV is no longer a passive activity, but TV becomes an active medium, offering consumers new ways of interacting with the content by enabling more interactivity (Eronen, 2003). Interactive TV therefore provides people with a bundle of new services that can be personalized for the household.

Interactivity allows users to actively engage in front of the TV by selecting information from teletext style services, by enjoying enhanced TV shows or by engaging in live interactive TV games.
Interactivity in iTV can simply be defined as anything that takes the user beyond the passive experience of watching and that lets the user make choices and take actions (Gawlinski, 2003). The level of interactivity in iTV applications is limited by the potential of the technology used, but it is not determined by it. It is the user who makes a program interactive, given that the technology allows an interactive use. The user decides how much interactivity she wishes to employ in a specific situation (Vorderer, 2000).

Previous research in Human-Computer Interaction (HCI) on interactive TV was mainly focused on the design of the electronic program guide (EPG), and rarely considered the enhancement of the TV content. In particular, previous research approached iTV from a technological perspective, and did not consider the iTV user as a TV viewer (Chorianopoulos and Spinellis, 2003). In addition to that research on iTV cannot be addressed without a clear understanding of the context of use (Hughes, 2000). It has to look at the background issues such as how the home differs from other environments, what motivates people to use domestic technologies, and how patterns of use differ between users. The home exposes us to the demands of new user groups, including the elderly, which has to be considered in the design (Crabtree, 2004).

With the introduction of the return-channel households can use “real” interactive TV, including the ability to identify usage on household level. The identification on a household level offers the ability to personalize TV content, information and even tailor advertisements to the members of the household. But how can we address individual users in front of the TV? How can we enable users to personalize their iTV services to the same extend as they experience personalization in internet-based services?

The goal of this chapter is to develop an interaction technique that supports all the typical requirements for personalization in the context of interactive TV. Goal is to show, how personalization of services is affected by going beyond the typical PC-based/Internet usage context towards another usage context, like the home.

The next section is going to present an overview on related work in the area of interactive TV and presents (based on a literature review) all requirements for personalized interactive TV. The case study called vocomedia shows how the selected interaction technique is offering solutions for all the requirements for the personalization of interactive TV. Finally we present our lessons learned and some conclusion on how this interaction technique might be used in other products and services.

Personalization in the Area of Interactive TV

Personalization of services depends on context. Context can be broadly referred to as “information about who is involved in the interaction and what they are trying to accomplish” (Karat, Karat, Brodie, 2003, p. 7). When applying personalization for products and services related to interactive TV, the usage context is different from web-applications. People watch TV typically in their living rooms, but also in the kitchen or sleeping room. Interactive TV can be used in groups and alone. Interactive TV services are influenced from the general TV watching behaviour that include TV usage to get informed, distracted or entertained. Customers of iTV thus are not trying to fulfill the typical need when using e-customer services on the web, but expect to be entertained by the service. Thus mechanisms from personalizing web-applications might not be applicable in the iTV context.

Related Work

TV viewers today have to face an enormous amount of information. The simple action of selecting a TV channel is becoming difficult when users have to choose from a set of 500+ channels.