Chapter 11
Experience Prototyping: Gathering Rich Understandings to Guide Design

Ken Keane
Madeira-Interactive Technology Institute (Madeira-ITI), Portugal

Valentina Nisi
Madeira-Interactive Technology Institute (Madeira-ITI), Portugal

ABSTRACT

In this chapter, the authors discuss Experience Prototyping as an appropriate research tool for capturing people’s stories related to physical places. It is difficult to explore subjective experiences through strict conventional prototyping methods within a lab; therefore, the authors argue the need for innovative research techniques especially when designing interactive systems where mobility, context, and people play a fundamental role. They discuss the methodology of “Experience Prototyping,” which is used to gather insight in a research project, and also what advantages such method brings to a user-centered process. The authors present some reflections and themes that emerged from using experience prototypes, and how they contribute to our understanding of the relationship between spatial narrative and place, and in particular how they may be used as an interaction resource towards discovery and sharing of “place.” In doing so, they offer a basis for discussion on how to co-design technologically mediated experiences together with users of such spaces. Finally, the authors discuss how this method informed the design of “The Breadcrumbs” application.

INTRODUCTION

In this paper, we discuss the methodology of Experience Prototyping (EP) and how it helped us gather meaningful insights on people’s experiences of places to inform design interventions. We refer to work we have conducted on the island of Madeira, that seeks to motivate and facilitate social activities in both local communities and visitors to the region. An initial phase of the investigation was dedicated to user research to increase our understanding of the local communities through the employment of design based research methods such as cultural probes (McCarthy, J, P Wright, 2004). Insights gathered, such as the importance of preserving the past and fostering authentic
experiences while roaming the city and the difficulties and importance of encountering local culture and community for tourists, inspired us to design the “Breadcrumbs” (BC) application and adopt Experience Prototypes (EP) to explore and how to capture people engagement in rich activities such as serendipitous discovery of new places. Serendipity is a very desirable quality, bringing surprise, a sense of discovery and adventure. We wanted to capture some aspects of this phenomenon and facilitate it during the use of the BC experience. Thus we began to question how people like to discover, explore, and interpret places. The EP’s helped us to understand how participants use the physical environment as a source of information and how it shapes their experiences of place through the hearing of stories. Results have informed the design choices for the Breadcrumbs application as well as novel user Interface (UI) design.

In this paper we present our methodology and show how it has helped our project progress. Inspiration is taken from Gaver (Gaver et al. 2001), who discusses the difficulty of applying scientific design theories to the experience design where problems and solutions are unclear, stating that designing for user experience is not about problem solving but about creating opportunities for users. We are also motivated by Hassenzahl (Hassenzahl, M. 2005), who states that experience design is an opportunity for designers to provide platforms that encourage users’ personal growth and self-expression. We argue that our use of EP as a research method can provide deep insights into user behavior outside of a lab setting, as well as opportunities for creativity. In doing so it can contribute to real knowledge (the ethnographic studies produced by anthropologists and design researchers), according to Zimmerman’s ‘research-through-design’ model (Zimmerman et al. 2007). As a tool EP differs from Ethnography, which focuses on uncovering design requirements through observations and direct engagement in situ. EP investigations are not just to interested in facts from settings but also scopes for insights, identifying specific areas to focus on terms of user experience. Being more open-ended their flexibility encourages creativity to emerge, resulting in insights rather then user requirements.

The Breadcrumbs Experience

The “Breadcrumbs” mobile application focuses on motivating and facilitating social interaction between local communities and visitors to the region. The application allows users to leave trails of mediated information (photographs, text and sound) in the form of short media segments (virtual breadcrumbs) while exploring spaces. These segments can be discovered by other users than the creators of such media themselves, by enabling all the Breadcrumbs users to navigate the spatially distributed content left by others. The breadcrumbs experience focuses on such things as spatial orientation, experiences, memories, conversations, and stories that people attach to places. It supports people’s exploration of space, and casts its users in two interlinked roles: explorers and storytellers, and asks how it may be used towards serendipitous discovery and sharing of “places”. A series of EP’s enabled us to iteratively refine our concepts with participants in different settings. We adopted an investigation method that takes into account the dynamic relationship between physical space and the lived world in order to observe user behavior in context.

Experiencing Space and Place

An understanding of how people experience the world and relate to concepts, such as space/place is an increasingly important consideration in the design of technologies. Jacucci et al. (Jacucci, G. & Kuutti, K., 2002) suggests that the vision of Ubiquitous Computing from Weiser (Weiser M. 1991) and Abowd and Mynatt (Abowd, GD and Mynatt, 2000) have not materialized as expected. They argue that social implication has driven technological innovation rather then making social use the target of design.
Related Content

Experience Prototyping: Gathering Rich Understandings to Guide Design
[www.igi-global.com/chapter/experience-prototyping/87046?camid=4v1a](www.igi-global.com/chapter/experience-prototyping/87046?camid=4v1a)

Development of Image Engineering in the Last 20 Years
[www.igi-global.com/chapter/development-of-image-engineering-in-the-last-20-years/213142?camid=4v1a](www.igi-global.com/chapter/development-of-image-engineering-in-the-last-20-years/213142?camid=4v1a)

An Algorithm for Occlusion-Free Texture Mapping from Oriented Images
[www.igi-global.com/chapter/an-algorithm-for-occlusion-free-texture-mapping-from-oriented-images/94215?camid=4v1a](www.igi-global.com/chapter/an-algorithm-for-occlusion-free-texture-mapping-from-oriented-images/94215?camid=4v1a)

The Screens of Our Time: On “Time” – Implications for Screen Time Research
[www.igi-global.com/chapter/the-screens-of-our-time/223056?camid=4v1a](www.igi-global.com/chapter/the-screens-of-our-time/223056?camid=4v1a)