Design Games for In-Situ Design

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ABSTRACT

The mobile culture has spawned a host of context-based products, like location-based and tag-based applications. This presents a new challenge for the designer. There is a need of design methods that acknowledge the context and allows it to influence the design ideas. This article focuses on a design problem where an in-situ design practice may further the early design process: the case of designing a pervasive game. Pervasive games are computer games, played using the city as a game board and often using mobile phones with GPS. Some contextual design methods exist, but the author proposes an approach that calls for the designer to conceptualise and perform ideas in-situ, that is on the site, where the game is supposed to be played. The problem was to design a creativity method that incorporated in-situ design work and which generated game concepts for pervasive games. The proposed design method, called sitestorming, is based on a game using situationistic individual exploration of the site and different types of game cards, followed by a joint evaluation of the generated ideas. A series of evaluations showed that the designers found the method enjoyable to use, that the method motivated idea generation, and that using in-situ design influenced their design ideas.

Keywords: Brainstorming, Contextual Design, Design Games, Design Methods, In-Situ Design

INTRODUCTION

The context of the user or the designer in a design process has been subject to some discussion. By in-situ design we go one step further and allow the contextual nature of the design process to influence the design. Artefacts which are meant for use in a particular site may benefit from a design process which is carried out in the exact same or somewhat similar context. Various design methods acknowledge the value of the context of either the users or the designers. The design method called “Contextual design” focuses on providing user-centric design solutions (Beyer & Holtzblatt, 1998), “Situated design” focuses on how the design session context influences the design (Le Dantec, 2009), “Place-specific design” recognizes the need for an understanding of how place is practised (Messeter, 2009), while “Bodystorming” (Oulasvirta et al., 2003) and “Place storming” (Anderson & McGonigal, 2004) take the designer outside to perform the design work. The missing link is the merger of a place-specific understanding with a practical design process. This paper proposes the sitestorming design method, which is an in-situ design process.

A “pervasive game” (Montola et al., 2009) is a kind of contextual computer game, that expands the magic circle of a game performance, either spatially, socially or temporally in comparison to non-pervasive (normal) games. In
practice, the term “pervasive games” refers to urban games played in the streets of a city using pervasive technology, like mobile phones and GPS. The game play of these games is unique, because usually the site is large, includes many distracting artefacts that are not part of the game, and is often a public space, where there is traffic and other people pass through. Pervasive games therefore calls for a design method, that takes the nature of site-specificity into account. The term site-specific in this understanding, originates from the field of site-specific art and site-specific performance and describes a piece of art or a performance which is produced for a specific site or venue (Pearson, 2010). Basing a performance on a specific site opens for the site to make its presence in the performance, and site-specific performances often work with the site, either creating performances that unite the performance with properties of the site or deliberately plays against it (cf. Lankosti et al., 2007; Pearson, 2010).

Pervasive game design have been subject to several studies (the most comprehensive being a book on pervasive game design by Montola et al., 2009). Little work, however, has been done in the direction of understanding the design problem of these games. As site-specific performances benefit from using the site in unexpected and creative ways, pervasive games and other urban games may benefit from a design method that deliberately works with ideas based on the characteristics of the site. Inspired by site-specific performance design, art practices and design games, we propose a design method for early idea generation of pervasive games or any other site-specific game.

PERVASIVE GAME DESIGN METHODS

A number of pervasive games have been designed, mostly as research prototypes, but commercial games also exist. A number of papers are published on the design of these games (Cheok et al., 2003; Benford et al., 2005; Benford et al., 2004; Chalmers et al., 2005; Kiefer et al., 2007, and Montola et al., 2009), but very few discuss how the game concept was developed. Usually design is understood as a matter of explaining a completed game design, often in the form of an evaluated prototype. There is little in the literature of pervasive games on why or how the design ideas themselves emerged. Most of the studies present the design concept as a finished concept designed to explore possible use of new technology (for example the use of QR-tags in games). In this way there has been little focus on actual design methods. However there are some studies which reveal, at least in part, the design process to the readers. Among these are studies by Schlieder et al., 2005; Chang & Goodman, 2005; Kristiansen (2010); Lankoski et al., 2007; Niemi, 2005, and Björk et al., 2002. Schlieder et al. (2005) adopts a method of choosing a well-known board game of the strategic type and making it into a pervasive game, resulting in a game where competition partly relies on the players speed. This is a result of transferring a turn-based strategy game (like Tic Tac Toe) into a city-wide game, where waiting for the opponent to make his move is awkward, as the players seldom are in direct contact. Schlieder et al. (2005), shows the design strategy of identifying a problem and proposing a solution. Their solution is evaluated through design prototypes, for example the GeoTicTacToe game, which is a site-specific version of the well-known Tic Tac Toe game. Chang and Goodman (2005) describe their process developing the Flasco game as a combination of aleatoric design methods and methods derived from art practice:

We also adopted the approach of artist and architect Vito Acconci, whose “Following Project” documents a conceptual street game. After choosing a stranger at random from a crowd, Acconci trailed the target until s/he entered a privately-owned space.

The use of Acconci is noteworthy, because used as a design method, it is an example of a contextual practice. The inclusion of the creative practices of another field, opens the
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