

StoryTime: Experiencing Place through History

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ABSTRACT

In this paper, we present our vision of the future of maps. StoryTime is a system of geographically associated “stories” as told by the people who experienced them. StoryTime allows visitors to a location to explore a place from a new perspective, providing insight into the lives of those who live there. We focus on individual access to stories recorded by others, and present StoryTime through use of an e-paper interaction concept.

Author Keywords

Experience Design, Cartography, Psychogeography, Participatory Mapping, Way-Showing

ACM Classification Keywords

H5.1. Information interfaces and presentation (e.g., HCI): Multimedia Information Systems—artificial, augmented, and virtual realities.

INTRODUCTION

To address the requirements of the OZCHI 2009 24 hour online design challenge, “Finding yourself in Melbourne: Designing the future of maps,” we designed a system through which visitors can experience Melbourne from a community’s perspective, over time and through tangible interaction. We were inspired by research in the areas of space and place, psychogeography, and participatory mapping, to create a map of the future that offers users a sense of history and connection to a location’s past.

DESIGN PROCESS

We found insight into the field of mapping through research of the concept of psychogeography, “the study of the precise laws and specific effects of the geographic environment, consciously organized or not, on the emotions and behaviors of individuals” (Debord, 1955). The term is also associated with a set of practices for exploring cities in playful, unusual ways intended to foster new understanding and awareness of urban surroundings. This intent is tied to the concepts of “place” and “space,” where space is the actual physical existence of some location, and place is the meaning of a space that emerges through human activities and understanding (Harrison & Dourish, 1996). Psychogeographic practices seek to explore and often challenge or reinterpret the meaning of a place. Participatory mapping is a set of practices intended to create maps of places through “input from an entire community in an open and inclusive process” (IFAD 2009). The meaning of a place is the result of how a community uses it, and involving that

community directly in the mapping process offers an opportunity to capture that meaning.

We also researched the city of Melbourne. Through visiting a number of travel sites we found that the history of Melbourne is an important part of the city’s character. From its wide streets to its famous grid-pattern layout, the physical character of Melbourne is steeped in history.

Our research led us to the idea of connecting people to places through history. We observed that those who have seen a place change over time have a deeply rooted desire to share their knowledge of that place. Indeed, such knowledge can be part of the culture of a place long after the place has changed. For example, in Pittsburgh, USA, the “Kaufmann’s Clock” is an important downtown landmark, even though the building the clock is attached to is no longer a Kaufmann’s store (Sebak, 2006). The physical landscape can also be understood as an embodiment of the spirit of place. For Aboriginal people of Australia, if a landscape “looks like a coiled python, it actually is, in its spiritual guise, that python and must be approached as such” (Sheehan & Lilley, 2008, 88).

We also found examples of current trends in map-related and location-based technologies, like the augmented reality smartphone applications Layar (<http://layar.com>) and Wikitude (wikitude.org). Both applications superimpose location-based information on a camera view of the user’s current surroundings

Next, we created personas to help guide our thinking in a user-centered way. Our personas represented two different user groups: business travelers and casual tourists. Business travelers and leisure tourists have both overlapping and divergent needs (Swarbrooke & Horner 2001), and we wanted to consider both kinds of needs during our process

With this background, we developed our core design goal: to enrich the experience of pedestrians by allowing them to visit Melbourne from different historical perspectives. Our vision for the future of maps is one of collaborative, participatory and context-aware experiences that encourage the making of meaningful connections with place through exploration.

CONCEPT

The heart of StoryTime is a collection of multimedia stories from Melbourne inhabitants, associated with particular locations and particular times, creating a map of local history as told through personal stories. Such stories may include photographs, text, video, audio files or other appropriate media, which will allow for participation by people with diverse abilities.

People can reach the StoryTime system through personal computing devices or through public installations

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throughout the city (See Figure 1). They can use either method to add their own stories to the system (story sharing), or to access existing stories (story experiencing). In this paper, we focus on those who wish to experience the stories of a place through private personal devices. We refer to them as visitors, be they residents or tourists.

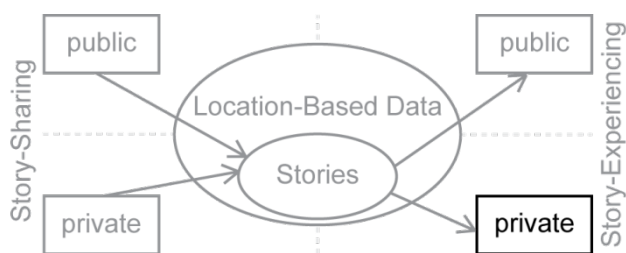


Figure 1: StoryTime System

StoryTime is intended to work with the variety of personal computing devices we expect to see in the future, and the details of how a user interacts with the timeline and story system will depend on the display device. For the purposes of demonstration, we have envisioned an e-paper device we call Personal Information Paper (PIP). PIP is a networked mobile computing device consisting of a flexible digital touch screen that can be folded up and slipped into the pocket like a piece of paper. PIP can be set to vibrate or otherwise notify its owner when they near a location with associated StoryTime information.



Figure 2. Visual Prototype of StoryTime PIP Interface.

When a visitor is using their PIP to access the StoryTime system, it shows them a photo of their current location, and a timeline that the user can scroll through to see images from different times, as shown in Figure 2. When the user views a time period that has multiple stories associated with it, onscreen icons appear to allow access to the individual stories.

Other concepts we envision include current smartphone technology, an umbrella display that would provide panoramic views, a tangible sphere for children to play with and a 3D palmtop holographic display. In each case, the information offered by Story Time would be customized to suit the strengths of a visitor's own device.

EVALUATION

We used scenarios and physical prototypes of several proposed tools to conduct cognitive walkthroughs in

order to gather feedback on our design. Our participants were three male Indiana University students, ranging in age from early 20s to early 50s, who had personal and professional travel experiences similar to our personas. The focus of the evaluation was on how the parts of the concept work as a system. We received positive feedback on the concept of a map showing the history of people. The discussion gave us insight for our redesign, and we generated several more concepts for possible tools to access StoryTime.

FUTURE WORK

Future work with StoryTime will need to address the parts of the system not covered in this paper, including public installations for story sharing and story experiencing, and the sharing of stories through private devices. For StoryTime to collaborate with other systems, a standard will need to be followed for the storage and retrieval of data. The recording and saving of stories to the system will need to be a rewarding experience, and high quality contributions should be recognized as such.

To assure experiences with StoryTime are honest, engaging and meaningful, story data will need to be judged for accuracy and relevance. Crowd-sourcing is a likely candidate for this, but the implementation will need to protect privacy, establish trust, and prevent uninvited or inappropriate experiences. While there will inevitably be inappropriate content, StoryTime should to some degree allow for sharing stories that evoke strong emotions. Especially for locations where conflict and controversy have played a role in the shaping of "place" of the space, such stories will be of great importance.

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