Sharing reflections: a collaborative exploration of place

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Introduction

Our project approaches shareable mobile interfaces for learning from an unusual perspective. Rather than supporting goals that arise from traditional classroom and curriculum, our goals devolve from a post-modern perspective on challenges and opportunities that arise for contemporary students in technology-rich environments. Our primary pedagogical goal is for students to engage with one another around their reflections regarding *place* and their identification and experience of *particular places*. To support this process, we have designed a mobile, multi-user, GPS-supported software system for sharing ideas, personal reflections and reactions *in situ*. By enabling co-located students to contrast their own reflective notes with those of others in a light-weight manner, within distinct physical contexts, we promote increasing depth in (a) their individual and shared experiences of places, (b) their thoughts about the nature of place in general and (c) their individual and group writing about particular places. Our intent is that they approach these ends by using the software to ultimately construct joint, non-linear, multi-layered narratives of place. Thus, sharing becomes a means of provoking reflection and insight during the activity.

PlaceMark

Technologies can blur the boundaries of our places and abstract the particulars of our surroundings, thus calling into question established and "appropriate" modes of behavior (Harrison & Dourish, 1996; Harrison & Tatar, 2008). This suggests that both the notion of place and experiences of particular places need to be made available as objects of deliberate thought. In our case, we want students to think about how they experience the different places within a particular physical field located on their university campus; this field has a rich and controversial social history (including its role as a former site of slave quarters prior to the U.S. Civil War). These students are being called upon to reflect on history and place in the context of a class on new media.

To support this specific endeavor, we have designed a multi-user tool for reflection called "PlaceMark". PlaceMark is composed of a simple (yet unique) blend of features from instant messaging, blogs, wikis, and place-based annotation systems (e.g., Urban Tapestries (Lane, 2003) and GeoNotes (Fagerberg, Espinoza & Persson, 2003)). PlaceMark is a multi-user, text authoring system in which users compose textual entries in a private work space and anonymously publish them to shared spaces within the group's purview. The shared entries are presented in a listing, akin to a thread of posts to an online forum. However, unlike in a forum or a blog, each member of the user group retains the ability to re-order the contributions; thus, they can change the context in which entries appear, and subtly altering the overall emerging narrative.

The primary authoring process is augmented by a set of complementary features, each designed to contribute to group reflection on, and negotiation of, place. For example, a shared tagging feature allows users to embed words or comments within the text entries, thus enabling annotation or any number of grouping or organizational processes.

Additionally, students can conjunctively use a GPS receiver to place location and time "stamps" in the body of the text entries. Unlike most locative media authoring systems, PlaceMark does not

present the entries *in terms of* the locations embedded within them (i.e., the system does not support location-based triggers). Instead, location coordinates are given no more privilege in the process of indicating place than the written text itself. This design decision reflects epistemic values of the system's post-modern pedagogical context.

The model employed for sharing textual entities among users - sharing for provocation - is inspired by work in the learning sciences which encourages the promotion of shared development of knowledge among learners, multiplicity of perspectives, and negotiation of meaning as learners develop their own conceptions of the world (Jonassen, 1991; Savery & Duffy 1995; Tutty, White, & Pascoe, 2005). What evolves from the use of PlaceMark is a collage of perspectives, impressions, and conceptions of a shared experience of a place. We understand sharing in digital contexts to be vitally linked these learning values.

Future work and final comments

While PlaceMark has been evaluated in pilot studies (see Schaefer, *et al.*, 2008), the software has yet to undergo a thorough evaluation within the semi-structured learning context for which it was designed. Thus, the system will be deployed and used within an undergraduate new media and literature course in the coming academic semester. To gain insight into the implications of the cumulative design decisions forming the software, system use will be analyzed employing data collected through video taken in the field, digital artifacts created by the students, user surveys, and software logs.

Our target in technology development is particular and situated within a narrow context, but deals with important contemporary themes that have value implications for the conception of socio-technical systems in general – in particular mobile, pervasive, and ubiquitous systems. We recognize the pedagogical potential of sharing as a means toward peer-led generative reflection on perceptions of the world, and aim to promote system design which privileges student-driven learning and ideation.

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