"Heritage Stories": Co-constructing Heritage in a Museum Setting

Aleksandra M. Adach, University of Illinois at Chicago, aadach3@uic.edu

Abstract: In response to the participatory turn in public history, and to address the need for reconceptualizing heritage as dynamic and co-constructed, I designed an interactive tool to be used in museums. My design is informed by constructionist theory of learning and driven by the principles of design-based research. Through scanning a QR code next to a tangible artifact in a museum, learners can contribute narratives and engage in a community of diverse voices.

Keywords: heritage, narrative, constructionism, museum learning, design-based research

Problem analysis

In recent years, historians and civic activists alike have been encouraging the public to shift from seeing themselves as recipients of knowledge towards contributing to the process of re-remembering, especially in places of importance towards their community (Klaebe, Foth, Burgress, and Bliandzic, 2017). This focus on participation highlights a subjective quality to the constructs of history and heritage.

The participatory turn in public history is not reflected in many heritage museums, where passive tours, either with a docent, or with an audio guide are still pervasive (Klaebe et al., 2017). Therefore, visitors are not always provided with opportunities for meaningful learning experiences in a museum space (Aoki, Grinter, Hurst, Szymanski, Thornton, and Woodruff, 2002). History and heritage are often presented as a set of undisputed facts from a one-sided, authoritative perspective (Monte-Sano, 2016).

Heritage museums should encourage visitors to engage in practices of historical inquiry, including dealing with complexity of sources and perspectives, corroborating arguments with appropriately selected sources, and understanding nuanced reasons behind divergent interpretations of the same events (Monte-Sano, 2016). Designs in museums need to reflect different voices and engage broader audience (King, Stark, and Cooke, 2016). Moreover, visitors should be engaged as active co- creators rather than passive consumers of heritage (Lane, 2003).

Theoretical background

From a constructionist perspective, people learn while constructing meaningful artifacts, either material or virtual, while engaged in a shared social activity (Papert, 1991; Pinkett, 2000). Papert (1991) introduces two key ideas that I find relevant to my design. The first one is *knowledge construction*. Kafai (2006) further explains: "A key aspect in knowledge construction is appropriation – how learners make knowledge their own and begin to identify with it. These appropriations go beyond the intellectual and include emotional values." (p. 39) An important element of learning environment that facilitates appropriation is called "objects-to-think-with". These objects connect the concrete and abstract. The second key idea is *learning cultures*. The goal is to design for a community and not for an individual, for example in a context of multi-user online environment. What is more, different members of such a community work towards a broader overarching goal (Kafai, 2006).

Proposed design

I propose a design that will provide opportunities for visitors to listen to and to contribute their own narratives to a digital guestbook that can be accessed by mobile devices after interacting with exhibits' QR codes. By placing QR codes on exhibit cases, I will not alter the physical layout of the museum itself, but rather create an additional layer of affordances that extend beyond the physicality of the space.

Through co-authoring meaningful content on the website, learners potentially develop sense of belonging to a community and start see themselves as experts. Integration of tangible and intangible elements of heritage (museum exhibits and stories) fosters the process of appropriation since it links the concrete and abstract. The website is co-authored by multiple users who together contribute towards a collection of stories that, in turn, help the learners see heritage as a participatory and dynamic cultural process.

My theory of change has guided me in developing three design principles:

- 1. Combine static and dynamic, tangible and intangible.
- 2. Website design should provide a way for a learner to be both co- creator as well as audience of stories.

3. Accessing and interacting with the website should be as straightforward as possible in order to engage as broad an audience as possible.

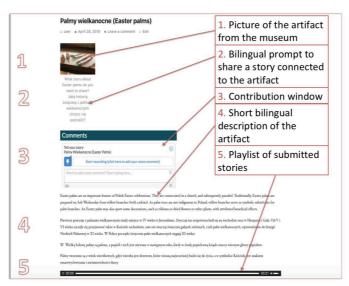


Figure 1. Digital Guestbook entry prototype.

Conclusions and implications

Heritage museums are places that present a significant potential for meaningful learning. I argue that this potential can be achieved through implementing designs rooted in constructionist principles. While there have been multiple constructionist design projects in STEM-related fields, I believe that my design is a step towards expanding this framework into the field of heritage and museum learning.

Some ways of how researchers can learn from this design include analyses of interactions in the museum. How may learners interact with other exhibits and visitors in the museum differently after interacting with "Heritage Stories"? How does the learners' concept of heritage change across multiple visits on the website? What are some themes present in learners' narratives? How do learners express their experience in their narratives through *temporality*, *sociality*, and *place* (Clandinin & Connelly, 2000)?

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