

Constructing Narratives Using Fast Feedback

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ABSTRACT

Museums and cultural institutions have expended considerable effort for over decades to link their exhibits to the life experiences of their visitors. With the temporal and spatial constraints of a user's visit to a museum exhibition, it has been difficult to collect as much information as the museum would like to obtain from visitors. This paper argues that the quality and quantity of that collective information correlates to the means the museum adopts to gather information from its users. We hypothesize that providing a convenient way for users to share information and to use short messages from fast feedback mechanisms will increase the chances of getting users to contribute their own narratives. The paper explores a solution for achieving the goal of gathering users' personal narratives and experiences by collecting their short messages from diverse social media including Twitter and Facebook through mobile devices.

Categories and Subject Descriptors

H.5.1 [Multimedia Information Systems]

General Terms

Management, Documentation, Design, Human Factors.

Keywords

Cultural heritage, narrative, social media, microblog

1. INTRODUCTION

Museum visitors have different perspectives and interests based on how they relate their personal experiences and knowledge to the objects on display in the museum. Many museums and cultural institutions intend to collect individuals' personal perspectives to complement and augment the content of the museum's official interpretation. For example, one approach used to connect users to the exhibit by the Nahum Goldmann Museum of the Jewish Diaspora in Tel Aviv, Israel is to provide card catalogues where visitors can search for information about the fate of their long lost relatives and thereby making real the historical connection between the visitor and the exhibit[1]. For the usage of users' information, [1] investigates the ways narratives about history came to support dialogue in history museums and the ways official and vernacular cultures tend to be synergistic. [2] concerns tourist narratives as a tool for connecting memories with contemporary events and narratives to personal history.

Nowadays, the emergence of the Social Web has inspired a number of museums to extend the experience of their exhibits using social features to engage users to contribute opinions and feedback about their museum experience. The Museum Blogs¹ is a directory of over 286 museum-related blogs. The 2009 survey of the Commons on Flickr, launched in 2008 by the Library of Congress and Flickr, showed that 27 members of the Commons reported positive experiences with The Commons [3]. Twitter, a microblogging service, is utilized by a growing number of cultural institutions including the Brooklyn Museum, the Getty Museum, the Whitney Museum, etc. However, the current usage of social technologies focuses mostly on the information flow from museums to visitors using blogs and other social media in order to increase awareness of museums' events and collections [4, 5].

Only a fraction of existing projects attempt to engage online users as contributors; most often the opportunities to contribute are limited to simple commenting, tagging and microblogging because of their appealing immediacy and portability. They allow users to publish small elements of content and instantaneously broadcast them to other users of the service. The content produced through those fast feedback mechanisms has been analyzed in several directions. [6] documents the power of word of mouth by mining social and cultural trends and patterns. [7] investigates the properties of microblog data for long-term usage. [8] finds that the microblog data expresses collective memory related to an event, person, or idea and illuminates diverse perspectives from various subcultures. Those studies clearly show us that those short messages from fast feedback mechanisms (commenting, tagging, and microblogging) not only reflect individual and collective responses in real time but also can capture profound and personal meaning for the contributor. As a result, the short messages might be important components for composing a personal narrative for a specific object. Therefore, we hypothesize that providing a convenient way for users to share information, and to use short messages from fast feedback mechanisms, will increase probability that visitors will contribute their own narratives about an exhibit. In this paper, we propose a mobile system to facilitate the management of these feedback artifacts from diverse social media and a Web 2.0 system to help people compose and share their narratives. A preliminary survey with 2 museum curators, 3 faculties of educational outreach department and 2 faculties of innovative department shows that they are willing to share short messages through these feedback mechanisms and further utilize those short messages to compose their memories and narratives.

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¹ <http://www.museumblogs.org/>

2. THE MEMA

The system is built upon a collection with approximately 80,000 photographs by Charles "Teenie" Harris, a photographer for an influential local newspaper, the *Pittsburgh Courier*. This collection illustrates a 40-year period of Pittsburgh history through the eyes of an African-American photo-journalist and amateur historian. MEMA stands for Museum Exhibition Management. It is a system with mobile and Web features. To be completely compatible for all mobile devices, we designed a mobile website with flexible views for various mobile phone screens. Users with handheld devices could post their ideas and feelings at any time in the exhibition, with a Wi-Fi connection provided by the museum. This mobile site is custom built for the exhibition "Teenie Harris, Photographer: An American Story" at the Carnegie Museum of Art. It provides a friendly and intuitive navigation structure to assist users to visit the exhibition (see Figure 1). Visitors can navigate the mobile system by four categories including "HOT!", "Theme", "Date", and "Ex. No". The "HOT!" category could lead visitors to the most popular items that are getting the most feedback in the gallery. In addition, visitors can search for a specific item by entering the exhibition number displayed under each of the photographs on view. Four types of interactive feedback are provided: "like", "comment", "tag", and feedbacks on Twitter and Facebook. This functionality is available for every item displayed in the gallery.



Figure 1. Mobile interface.



Figure 2. Web interface.

We also propose a personalized Web system (see Figure 2) to allow users to capture and manage the four types of feedback data they created and to elaborate upon their feedback to compose their personal narratives. The data components are 1) the information created by the museum, 2) the feedback from

the mobile functions "like", "comment", and "tag", 3) the feedback from posted on Twitter and Facebook, and 4) the images that the user interacted with during his/her visit. An editable panel widget is provided in our system. Users are able to generate their narratives by selecting any or all of the different data components. Different component options are displayed in a sidebar menu adjacent to the editable panel. The user can edit the available content and/or add their own personal content as easily working with standard blog editing tools. After completing the narrative, the user may choose to save it as his/her private post, or share it publically so that others can access their material.

3. DISCUSSION AND FUTURE WORK

Our preliminary survey shows positive affirmation from our museum subjects. They are willing to share short messages through these feedback mechanisms and are excited about having a simple way to compose their own memories and narratives about the exhibition. The educational outreach team envisions using MEMA to enable students to capture their thoughts and reactions and to think about them and discuss them after the museum visit. For example, students in lower grades would be able to collect group feedback and compose a class narrative with the instructor. Students in higher grades will be able to use the feedback mechanisms to capture their reactions during the museum visit and work in teams to construct narratives of the exhibition.

In this study, we are running an empirical experiment starting on October 29th, coinciding with the opening of the exhibition "Teenie Harris, Photographer: An American Story". Actual visitors to the exhibition will be our subjects. All of their activities will be recorded in our session logs. We expect to see that the proposed solution could assist narrative creating in terms of convenience and efficiency. Further statistical analyses will be provided to test our hypothesis.

4. REFERENCES

- [1] Rowe, S.M., J.V. Wertsch, and T.Y. Kosyaveva. 2002. Linking Little Narratives to Big Ones: Narrative and Public Memory in History Museums. *Culture & Psychology*. 8(1): 96-112.
- [2] Rickly-Boyd, J.M. 2009. The Tourist Narrative. *Tourist Studies*. 9(3): 259-280.
- [3] Vaughan, J. 2010. Insights into the commons on Flickr. *Portal: Libraries and the Academy*. 10(2): 185-214.
- [4] Chan, S. and J. Spadaccini. 2007. Radical Trust: The State of the Museum Blogosphere. *Museums and the Web 2007*. San Francisco, California.
- [5] Bernstein, S. 2008. Where do we go from here? continuing with Web 2.0- at the Brooklyn Museum. *Museums and the Web 2008*. Montreal, Canada.
- [6] Jansen, B.J., et al. 2009. Twitter power: tweets as electronic word of mouth. *Journal of the American Society for Information Science and Technology*. 60(11): 2169-2188.
- [7] Java, A., et al. 2007. Why we twitter: understanding microblogging usage and communities. *The 9th WebKDD and 1st SNA-KDD 2007 workshop on Web mining and social network analysis*. 56-65.
- [8] Chao, T.C. 2011. Data repositories: a home for microblog archives? *iConference 2011*. Seattle, WA, USA: ACM New York, NY, USA. 655-656