

2nd International Workshop on Mobile Access to Cultural Heritage

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Abstract. Given the growing interest in Cultural Heritage (CH) and considering that 2018 has been declared the European Year of CH, and also following the successful workshop at Mobile HCI 2016, Mobile-CH 2018 was again the meeting point between cultural heritage and personalization research – using any kind of mobile technology to enhance the personal experience in cultural heritage sites. The workshop aimed at bringing together researchers and practitioners who are working on various aspects of CH and are interested in exploring the potential of cutting-edge mobile technology (onsite as well as online) to enhance the CH visit experience.

Keywords: Mobile Cultural Heritage, Cultural Heritage Mobile Human Computer Interaction.

1 Introduction

CH has traditionally been an area that is favored by personalization research [1]. Visitors come to CH sites to experience and learn new things, usually without a clear idea of what to expect. CH sites are rich in objects and information; much more than the visitor can absorb during their limited time of a visit. The above poses the following challenges: How can we use state-of-the-art technology to provide an engaging experience for the ‘digital’, ‘mobile’ and ‘traditional’ CH visitors, before, during and after their visit? How can we exploit visitor information from their previous interactions with CH venues, their interaction with the current venue, and data extracted from the ubiquitous Web? (How) can this kind of support be a basis for maintaining a lifelong chain of personalized CH experiences? From a technological point-of-view, the evolution of methods for managing and integrating Open Data, as well as for delivering mobile services, opens new research opportunities about personalization. For example, we can

expect improvements in the presentation of information, in the exploration of content and in the discovery of events suitable for the specific user/group. New research can also be foreseen to improve the collaboration among users with similar interests, the facilitation of human learning and the adaptation of technology to heterogeneous user contexts and devices.

Personalization could improve the interaction and experience of visitors both in CH virtual spaces (like web platforms or social media) and visitor interaction with CH guide systems on-site. As discussed by Falk [2], CH visitors differ, and their visit experience is a combination of physical, personal, socio-cultural and identity-related aspects. Hence, visitors may benefit from individualized support that takes into account their particular contextual and personal attributes. Personalization can also be related to collaboration for preserving, enriching and accessing cultural heritage, by considering crowdsourcing techniques and based on the active involvement of a broad range of people. In parallel, several projects have developed – and keep developing – data collection tools and museum or city guides, as means of demonstrating concepts like location, context awareness, and smart built environments. Together, these represent two ends of the “production” process of bringing cultural heritage from the research environment to its consumers. A key challenge is to address many classes of ambience: touristic routes, cities, archaeological sites, ancient buildings and museums, as well as spontaneous sources of artwork such as street art. Finally, at present, various initiatives are inviting people to engage with their online collections (e.g., Tate Modern, Powerhouse Museum), or reach out to them via Social Web platforms (e.g., Flickr the Commons, Brooklyn Museum on Facebook, augmented reality browser of Netherlands Architecture Institute with Layar). However, personalization strategies for CH have been largely limited to research projects and experiments (e.g., PEACH¹, INTRIGUE², Kubadji, PIL³, CHIP⁴, PrestoPrime⁵, WantEat⁶) and mainly focused on ad-hoc, within-session or -visit personalization, or visitor behavior analysis⁷.

2 Workshop summary

Ten papers and four posters/demos were submitted to the workshop, out of them eight papers (6 long papers, 1 short paper, 1 position paper) were accepted, and two demonstrations and one poster were accepted.

The contributions spanned over a variety of topics, but still focusing on several themes, mostly mobile, as the focus is in general on mobile CH. The themes included mobile learning of CH [10,13], Evaluating the impact of technology on visitors’ expe-

¹ <http://peach.fbk.eu/home.html>

² <http://www.di.unito.it/~seta/intrigue.htm>

³ <http://cri.haifa.ac.il/project/pil/pil.html>

⁴ <http://chip.win.tue.nl/home.html>

⁵ <http://www.prestoprime.org/>

⁶ <http://www.piemonte.di.unito.it/>

⁷ <http://senseable.mit.edu/louvre/>

rience [8], CH preservation using mobile technology [4] and the main theme (not surprisingly) was using novel mobile technology for exploring the potential of enhancing visitors experience. This included the use of mobile eye trackers for human-computer interaction in CH [7], tangible human-computer interaction [9], Exploring the potential of chatbots in museums [11], identifying and supporting visitors' personas [1] and extending the boundaries of the museum to the outdoors [12].

In general, the submissions focused on traditional aspects of enhancing learning in CH sites and on exploring the potential of state of the art technology to enhance the museum experience. Still, there were also contributions that tried to extend the boundaries of mobile technology in experiencing CH – to preservation and linking the museum to the outdoors.

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