## Abstract

## Seamlessly blending the off-site and on-site museum experience with the use of personalised digital mobile technologies

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Recent research on the use of mobile technologies, social networking, interactive digital storytelling, and augmented reality, amongst others, promises to make cultural heritage sites more attractive but also to provide new means for making cultural knowledge, interpretation, and analysis more effectively conveyed to the public. A research project titled CHESS (Cultural Heritage Experiences through Socio-personal interactions and Storytelling) aspires to combine the above and to enrich the museum visit by personalising and (dynamically) adapting interactive stories about cultural exhibits and artefacts to each individual visitor. Essentially, CHESS proposes to create narrative-driven cultural "adventures", which adapt continuously to their visitors, extend over space (e.g., physical/on-site and virtual/ off-site) and time (before, during, and after the visit), and involve users according to their varying interests, needs and desires. Two different museums participate as test beds in this effort, the new Acropolis Museum in Athens, Greece and the Cité de l'Espace in Toulouse, France.

The seamless blending of the off-site and on-site visit is firstly achieved through personalisation. A set of 'personas' representing archetypical visitors of the two museums were defined and described as part of a multitude of methods used to better understand the users of a museum mobile experience and identify their needs. Further, a carefully designed "profiling" game has been created to construct a comprehensive picture of each visitor's visiting style, behavioural pattern, interest in the museum, etc. This game can be played before the visit, at home (on the Web) or on a digital tablet provided on-site, and results in matching the visitor to one of the predefined personas and, subsequently, proposing tailormade stories. The storytelling experience is then further adapted on-site, and can be revisited off-site after the visit.

This presentation will highlight the issues and challenges that have emerge in the process of designing such an experience-oriented, user-centred digital system. Particular emphasis will be given on how we went about ensuring that our users' needs are perfectly addressed, aiming at maximising the acceptance of this highly innovative system and its potential for use in pragmatic situations.

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## References

- Adlin, T., & Pruitt, J. (2010). *The Essential Persona Lifecycle: Your Guide to Building and Using Personas* (Abridged e., p. 240). Morgan Kaufmann Publishers.
- Antoniou, A., & Lepouras, G. (2010). Modelling visitors' profiles: A Study to Investigate Adaptation Aspects for Museum Learning Technologies. *Journal on Computing and Cultural Heritage*, 3(2), 1-19. ACM. doi:10.1145/1841317.1841322
- Tallon, L., & Walker, K. (Eds.). (2008). *Digital Technologies and the Museum Experience:* Handheld Guides and Other Media (p. 238). AltaMira Press.
- Taxén, G. (2004). Introducing participatory design in museums. Proceedings of the eighth conference on Participatory design "Artful integration: interweaving media, materials and practices" - PDC 04 (Vol. 1, pp. 204-213). New York, New York, USA: ACM Press. doi:10.1145/1011870.1011894
- Véron, E., & Levasseur, M. (1983). *Ethnographie de l'exposition: l'espace, le corps et le sens* (p. 179). Bibliothèque Publique d'Information, Centre Georges Pompidou, Paris.