

**From delivering facts to generating emotions: The complex relationship between museums and information**

PETRELLI, Daniela <<http://orcid.org/0000-0003-4103-3565>>

Available from Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/24273/>

---

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

**Published version**

PETRELLI, Daniela (2019). From delivering facts to generating emotions: The complex relationship between museums and information. In: AZZOPARDI, Leif, HALVEY, Martin and RUTHVEN, Ian, (eds.) Proceedings of the 2019 conference on human information interaction and retrieval. New York, ACM, p. 3.

---

**Copyright and re-use policy**

See <http://shura.shu.ac.uk/information.html>

# From Delivering Facts to Generating Emotions: The Complex Relationship between Museums and Information

Daniela Petrelli  
Art & Design Research Centre  
Sheffield Hallam University  
153 Arundel Street, Sheffield S1 2NU, UK  
d.petrelli@shu.ac.uk

## ABSTRACT

**Motivation:** The past 25 years have seen a constant increase in the use of information technology to deliver digital content in cultural heritage settings. Museums have experimented with multimedia PCs, PDAs and phones, table-tops, Google Glass and now VR. The aim has always been to provide more information despite the fact that only a minority of visitors consumes the information on offer. Failing to engage visitors should direct our concerns on the ‘receiving’ side rather than on the ‘delivering’ side, that is to say to look at the visitors’ experience rather than the technology [1].

**Problem statement:** The problem lays in the way the interactive experience is designed: too often it is as an ‘add on’ to the physical exhibition rather than an integral part of the experience. The emerging Internet of Things bridges the gap between the physical and the digital and enables to seamless integrate the digital content with the material collection or the historical space. Via embedded technology it is possible to collect and exploit visitors’ data opening up new possibilities to create engaging and personalised visitors’ experiences onsite and online.

**Approach:** Using a number of case studies of exhibitions and installations used by over 20,000 visitors across Europe, I will show how the interaction with information can be designed as part of multisensory exhibitions that engages the visitor at many levels and generate emotion. The approach is collaborative and requires the equal contribution of technologists, designers and content experts throughout the whole process, from early conception to the final implementation. The response of the visitors goes well beyond expectations opening up new opportunities for long-term visitors’ engagement.

## CCS Concepts/ACM Classifiers

- Human-centered computing~HCI design and evaluation methods
- Human-centered computing~Mixed / augmented reality
- Human-centered computing~Empirical studies in interaction design

## Author Keywords

Tangible and embodied interaction; Internet of Things; cultural heritage; museum; multisensory; affective interaction

## BIOGRAPHY

Dr Daniela Petrelli started working on technologies for cultural heritage in 1996 designing the first context-sensitive personalised interactive mobile guide. Recently she led the European project meSch that explored tangible and embodied interactions in museums and heritage sites. meSch has received international awards and is the first to use the Internet of Things and Cloud Computing in museums. Dr Petrelli’s other research interests include personal and family memories, data visualisation, multimedia and multilingual information access. In her career, she has published over 100 international peer-reviewed contributions and received 12 awards both from academia and industry. Dr Petrelli is Professor of Interaction Design and director of the Digital Materiality Lab, an interest group looking into new digital-material hybrids.



## REFERENCE

1. Beverly Serrell and Britt Raphling, 1992. Computers on the Exhibit Floor. Curator – The Museum Journal, 35 (3).

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author.

CHIIR '19, March 10–14, 2019, Glasgow, United Kingdom.

© 2019 Copyright is held by the owner/author(s).

ACM ISBN 978-1-4503-6025-8/19/03.

<https://doi.org/10.1145/3295750.3300047>