Gimmicks, Geeks and Gut: Challenges and Preconceptions from Collaborative Research in Art, Design and Technology. A Case Study Using Mobile Augmented Reality.

Dr. Paul Coulton

Imagination

Lancaster Institute for

ContemporaryArts

Lancaster University

Lancaster

LA1 4YW UK

p.coulton@lancaster.ac.uk

Dr. Emma Murphy

School of Design

Glasgow School of Art

Glasgow

G3 6RQ, UK

e.murphy@gsa.ac.uk

Abstract

In this paper we outline the challenges and preconceptions that we have experienced in "Taking the Artwork Home", a collaborative research project across art, design and technology. Using a research through design approach to create a Mobile Augmented Reality to not only explore ways to enhance audience engagement with the arts but also to the implications of including the views of the gallery and the artists in all stages of the development process.

Keywords

Design Research, Research through Design, Mobile, Augmented Reality, Art, Technology, Museums

Introduction

The UK research agenda frequently calls for more cross-disciplinary research, and emphasizes the importance of impact beyond academia. This paper exemplifies this kind of collaborative research in the wild, and is based on a research project between an arts organization, design research academics and a

technology developer, using Mobile Augmented Reality (MAR) in the development of a prototype application to engage new users with gallery content.

The diversity of these collaborative endeavours can result in novel findings from the research itself (in this case, about the development of an MAR app to engage users and develop new curatorial strategies), as well as new insights into the design and practice of doing this kind of research (in this case, the complexities of doing research in the wild). In addition, such an interdisciplinary workspace can reveal preconceptions from edge audiences, which emphasizes the importance for researchers to collectively reflect, bolster and clearly articulate their approaches and outcomes.

About the research

This paper will firstly describe the complex nature of this project, in terms of funding landscape, diversity of partners and audiences. It will then outline the challenges experienced, and the implications for these kinds of projects in the future. It will conclude by detailing the novel insights that the project itself has generated in terms of application development.

Challenges

Challenges include defining desirable outcomes (e.g. tangible product outcomes versus intangible research outcomes); the paradoxes of research ethics and IP and how these can negatively impact the scope of the research, and the preconceptions of this kind of research from potential audiences. The paper will conclude by describing some novel insights, useful for designing for users with disabilities, as well as the implications for future research. Learning about the

process for doing this kind of research is important, as many new and pioneering research calls are geared towards enabling and encouraging this kind of collaboration. We know we *should* work in this way, but how does it happen? If research projects involve the development of an app, how do we ensure this is research about what *could be,* as opposed to the development of a market ready project, which could arguably be classed as consultancy.

Relationship between research and design and development of the artifact

The project had to demonstrate both research and development, e.g. there was an expectation that it would produce both research insights for the wider community, as well as an artifact (in this case, an app) that the gallery could use beyond the scope of the project. This meant that there had to be flexibility within the research approach and with the implementation of the artifact.

The research approach closely aligns to Sir Christopher Frayling's definitions of both 'research through design', (cited in Frankel and Racine, 2010) in that research into the possible implementations of MAR were evaluated with different user groups as part of the design process, and 'research for design' (ibid) in the sense that the end product is a prototype artifact in which all the thinking that went into producing it is embedded within that artifact, and in the sense that it is not finished ready-to-market app, but more an artifact with implications for designers to take further. One could argue that the artifact represents more divergent thinking of "what could be", as opposed to a

developer or consultant view of something most possible or practical.

We believe that it is important – and fruitful – for arts and humanities academics to engage in collaborative research activity. In doing so however, it is important to understand that all partners will have differing views on research and development, and could have different notions of value and values underpinning the research. They may also have a different view on desired outcomes of the research. Such complex but constructive and creative dynamics require careful negotiation and cooperation throughout the process.

References

[1] Frankel, L., and Racine, M. (2010). The Complex Field of Research: for Design, through Design, and about Design. Paper presented at Design Research Society

Acknowledgements