Design-led Knowledge Exchange: The Moving Targets project

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This paper presents the structure, methodologies, issues and outcomes of Moving Targets, a three year Knowledge Exchange project between Scottish academia, creative industries, agencies and audiences. Written from the perspective of the academic researchers, this paper describes and reviews the design-led methodology that was employed for knowledge exchange. Summarising the work done during the three years of the project, it foregrounds the issues that were encountered, the proposed solutions and how the collected insights have enriched the adopted design-led strategy. Finally, the paper outlines the outcomes of the three year project as well as thoughts for future directions in knowledge exchange mechanisms.

Introduction

Moving Targets is a three year Knowledge Exchange (KE) project funded by the Scottish Funding Council, and one of the first research projects to pioneer the shift from knowledge transfer models to knowledge exchange models in Scotland.

The project was designed to address the growing need for reconfiguring the relation models between creative industries and their audiences. In particular, we explore novel models for developing meaningful audience relationships in the current socio-technical state of flux, where the development and convergence of new technologies and the increasing use of mobile applications and social media are constantly changing how we create and consume media (TSB, 2009). Audiences move from the role of passive spectator to that of the actively involved participant in all aspects of the production. As a result, the boundaries between markets, industries, audience and related stakeholders are constantly reshaped (Harrison et al. 2009, Leung 2009, O'Reilly 2005, Ostman 2012, Tapscott et al. 2006).

The project has taken a cross-sector approach to the creative media industries using knowledge exchange mechanisms to create an interdisciplinary collaboration between academia, the creative industries (mainly Small-Medium Enterprises (SMEs)), agencies in the creative sector and audiences in Scotland. It is structured through two complementary KE centres located at the University of Abertay Dundee and the University of Edinburgh (Edinburgh College of Art). Abertay is the lead institution for these KE Centres. There are three Knowledge Exchange Associates working in the project with backgrounds in interaction design, service design, marketing and business model strategies.

Design-led Approach

In the project, we have adopted a design-led methodology (Fallman 2007, Design Research Council 2011) towards knowledge exchange with the project's stakeholders. We focus on the iterative process of using the accumulated knowledge and experience of both the academic researchers and the industrial partners and also building new knowledge and experience together (Forlizzi et al. 2000, Friedman 2007, Woo 2007). We do this by conducting initial research and then challenge the area of interest with design interventions. We partner with a variety of organisations developing their work in a cross-sector context which enables us to identify common challenges and opportunities as well as to explore the transferability of sector-specific initiatives and potential solutions. Practice-led methods such as workshops, secondments, collaborations and the offer of free consultancy services are used

by the project as the vehicles for research and design. They are also our methods for gaining insight into the industries' issues and for building a strong network of collaborators.

In addition, the project has a 'fuzzy-front-end' (Smith & Reinertsen 1998, Sanders & Stappers 2008). It puts an emphasis on the infrastructure and knowledge exchange methods while allowing flexibility for the project outcomes to be developed in context and tailored by the project's findings. This approach has been valuable given the fast paced changing environment of the creative industries, allowing the project to adapt to the constant evolution of needs and opportunities existing in the creative media companies.

Interacting with the Creative Industries

The role of the Knowledge Exchange Associate (KEA) is multi-dimensional involving the coordination of the 'flow' of knowledge between the project's participating groups. In Moving Targets, there have been intrinsic differences and different expectations between our open strategic level approach as KEAs and the short term focused objectives often required by industry.

To tackle most of them, it was necessary to find a balance between these expectations. For this, we had to acquire a deep and holistic understanding of the context, run thorough risk evaluation and make effective use of the existing knowledge for developing new understandings and tangible outcomes. The design-led iterative cycle of research and design interventions proved an appropriate tool towards finding this balance. In the early stages of the project, we sought to understand the context: gain insight into the ways the industry worked and explore the dynamics of their relationship with their audience. The main method was to be seconded in a company for a period of time, initially as an observer and gradually working for them in parts of their projects free of charge. The more companies we recruited, the more insights we were able to gain across different sectors that helped us identify several key issues and shape an overall picture.

Initial meetings with companies' representatives served as a first contact point where we explained to them the potential of participating in a KE project. At this stage, the kind of contributions we could make to the industry and the value that can be generated was still uncertain since we needed to define our role within the company and be precise of what we could offer. This uncertainty, inherent to knowledge exchange, leaves KEAs in the controversial position of trying to engage with companies into a yet to be defined proposition of value. This gap was partly bridged in Moving Targets because a variety of Scottish SMEs were involved in shaping the brief of the project. Apart from that, we had to develop good communication and networking skills to promote the advantages of KE tailored to the need of each industry. Background research of each sector was a necessity in order to be concise in what we offer, gain the companies' trust, and avoid any negative interference with the company's work flow. This research involved a general understanding of the media production processes, tools and methods, the terminology used and the sectors' situation. Furthermore, in order to be able to combine our skills and experience with the company's demand we followed training on certain areas that were essential to our collaborative work. As the project progressed, and recruiting companies was an on-going process, it was necessary to be up-to-date with the latest tendencies and state-of-the-art technologies in all creative sectors.

Further information on challenges and opportunities common to all sectors was obtained in two ways: hands-on workshops in which participating companies engaged in design-led playful activities and our collaboration with agencies working in the creative sector (consultancies, partnerships, policy makers, government bodies) that already had collected insights through their own activities. These activities offered us knowledge and expertise to help us, among other things, identify potential synergies and explore how our skills can add value to the companies.

After the first two years, we had accumulated adequate knowledge and experience to start a free business voucher scheme, which offered consultancy services to companies. The consultancy services were based on three areas which we had found we could add value through our skills, knowledge and experiences gained in engagement with the creative industry community so far. These areas were: Audience Engagement Strategy, Business Models/Intellectual Property review and Design led technical prototype creation for audience engagement. The consultancy services as well as further exploratory work developed externally gradually replaced secondments as the researchers' understanding of the industries built up.

Audience Engagement Strategy Tool: Based on the analysis of our case studies and a literature review, a visual taxonomy for audience involvement was developed as a brainstorming tool. This tool served both for companies to explore alternative audience strategies as well as for the project to get further insight into the differences in approach depending on sector and company's culture. Through consultancy work, the suitability of design tools for audience strategy and media production was revealed. For instance, media creators benefited from developing user personas and user journeys as an exercise for building empathy towards their audiences, enabling them to identify gaps in their services and tailor different aspects of their products to the needs and expectations of different types of users. Also design tools such as stakeholder maps were valuable for shaping partnerships and understanding the context in which their content was being developed and monetized informing their strategies.

Business Models and IP Review: A similar approach was adopted regarding Business models and Intellectual Property. A workshop format was devised over a number of visits to various companies. In the workshop the company staff explored the nature of their business and considered their existing and alternative business models. Approaches to Intellectual property were explored including copyright, patenting or if in house knowhow and rapid development are more appropriate in some cases.

Digital Prototype Creation: As well as strategic concerns we co-created technical solutions which provided new forms of audience engagement with our creative sector clients. We collaborated with a theatre company to develop a mobile phone based project, which allowed audiences to engage with playwrights and the company weeks before performances began. The audience were given extra context and written material to create fan fiction around a theatrical play and to visit the company in pre-production. Mobile phones were used to create promenade performances. We worked with the same theatre company to create a live link between audience and actors in the UK with counterparts in the Middle East. We also created a system for panoramic video the audiences could interact with, to be fed to and from musical events for a company which makes spherical displays.

Project Outcomes

The first major outcome of our three year collaborative work is the growing knowledge and experience we gathered on how to approach companies, how to work with them and how to understand their work methods and their content. We accumulated valuable insight that helps us identify, understand and articulate any gaps, issues, challenges and opportunities within the companies' relationship with their audience as well as on the methods of developing and disseminating content, and their business model. This accumulated transdisciplinary knowledge is manifested in the skills that we have embodied and which consist the identity and qualifications of a KEA in creative industries. Ourselves as KEAs are part of the legacy of the Moving Targets project.

Through our collaborations and knowledge exchange we offered the companies alternative lenses through which to look at their working and business models. Most of these new perspectives were based on design thinking. As an advance from our initial collaborations, we have helped successfully companies write funding applications for calls that required the bridging of creative content and digital technology.

In addition, our growing knowledge was used to create tools with which the companies could structure their audience's experience. The Scottish media industries have a fragmented nature, being formed by small companies with a much reduced number of permanent staff, which implies a very limited impact derived from our direct collaborations with companies. These constraints were tackled by taking more transformational design approaches by proactively exploring the development of tools that could be autonomously used by industry.

Conclusion

A project has investigated Knowledge exchange activity between two Academic Centres and the Digital Creative Industries in Scotland. A design led methodology was devised to collaborative uncover issues and evolve solutions to problems facing the sector, which neither academics nor creative practitioners could find alone. Initial engagement of workshops, interviews and secondments of researchers in house with digital creative companies provided a wealth of background knowledge of the make up of the sector and the kinds of issues it faces. This work led to a second phase of focused intervention in the area of Audience Engagement strategy, Business models and Intellectual Property review and finally digital prototyping of audience engagement platforms. Future work aims to consolidate this work and make available tools and knowledge after the project has finished.

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