

<b>Institution: University of Exeter</b>
<b>Unit of Assessment: 29 English Language and Literature</b>
<b>Title of case study: The Development of Novel Strategies and Values for the Preservation, Conservation, and Presentation of Cultural Heritage</b>
<p><b>1. Summary of the impact</b> (indicative maximum 100 words)</p> <p>Staff in the Centre for Intermedia at the University of Exeter research methods of documenting, archiving, and replaying multi-media art, heritage, and performance. Their work demonstrates how ideas and practices of performance, particularly sharing and replay of audience experience, can broaden and enhance public encounters with museums. Developed in collaboration with international artists, technologists, and major cultural organisations, the main impacts of this research have been to:</p> <ul style="list-style-type: none"> <li>• help professionals and organizations adapt to changing cultural values</li> <li>• preserve, conserve and present cultural heritage</li> <li>• generate new ways of thinking that influence creative practice</li> </ul>
<p><b>2. Underpinning research</b> (indicative maximum 500 words)</p> <p><b>Professor Gabriella Giannachi</b> and <b>Professor Nick Kaye</b> joined Exeter in 2004 to set up the Centre for Intermedia which promotes advanced interdisciplinary research in performance and the arts. They became part of the English Department in 2011 to build up synergies with existing research strengths in English in film, visual technology, and performance, and to create a research cluster that places Exeter at the forefront of new developments in digital humanities. Their work on documentation, archiving and replay is relevant to scholars in the humanities and Computer Science, as well as artists, technologists, and museums.</p> <p>Between 2004-11 <b>Giannachi</b> and <b>Kaye</b> used a wiki hosted by project-partner Stanford University and the virtual world Second Life to develop fourteen original documentations which directly involved artists and technologists in capturing and documenting the project's research and development (<b>3.1</b>) This prompted insight into the user experience which was published in the catalogue of an international exhibition dedicated to audiences (<b>3.5</b>). Subsequent experimentation with novel methods and tools, including motion capture and physiological data, led to the theorisation of how performance, new media and computer science methodologies can be brought together to create new forms of documentation, archiving, sharing and replay (<b>3.1; 3.2; 3.3; 3.4</b>). This research, initially funded by the AHRC (2004-9) and the Langlois Foundation (2006), was subsequently funded by RCUK (2009-14) (<b>3.6</b>) and further facilitated by an AHRC award (2011-14) in collaboration with Bristol Drama and Arnolfini, Bristol, to investigate the replay of live art archival materials within the context of a museum (<b>3.7</b>).</p> <p><b>Giannachi's</b> research for <i>Performing Presence</i> (<b>3.2</b>) and the EPSRC-funded network, 'New Research Processes and Business Models for the Creative Industries' (2009-10), resulted in a long-term collaboration with computer scientists at Nottingham (2006- ). Subsequent research on the documentation of user experiences led to several publications including a paper on a framework for interpreting user experiences as designable 'trajectories' through physical and virtual environments. This paper was given the 'best paper' award at the ACM Conference on Human Factors in Computing Systems in 2009, and was later developed into a book (<b>3.1</b>). This prompted an invitation to Giannachi to join the RCUK-funded 'Horizon' digital economy research hub at Nottingham, where in 2010-11 she led an interdisciplinary team in the design and development of an original tool called CloudPad. This uses cloud computing for the documentation, archiving, sharing and replay of mixed media artworks (<b>3.6</b>).</p> <p>Dissemination of Giannachi's RCUK-funded research led to a partnership with Tate to develop 'Art Maps', a mobile application allowing users to link artworks to specific locations through geotagging and annotate their experience through social media (<b>3.4</b>). Research into the museum user experience also led to a Nesta award to research user engagement with digital media at Imperial</p>

## Impact case study (REF3b)

War Museum, particularly in relation to the use of QR codes to embed objects with audience interpretation (2012) (3.8); and to an award from the AHRC's REACT knowledge exchange hub to collaborate with the Royal Albert Museum and Gallery, Exeter. This collaboration researched playful engagement with RAMM's Dartmoor heritage collections through the creation of a mobile web app, which encourages annotations by users to contribute to the museum's knowledge about its collections (3.9; 3.10).

### 3. References to the research (indicative maximum of six references)

Evidence of the quality of the research: research peer-reviewed at publication stage by scholarly journals and publishers and by major external funding bodies at grant application stage.

1. Benford, S., and **Giannachi**, G. (2011) *Performing Mixed Reality*, Cambridge, Massachusetts: MIT Press.
2. **Giannachi**, G., and **Kaye**, N. (2011) *Performing Presence: Between the Live and the Simulated*, Manchester: Manchester University Press, nominated in Theatre Library Association 44th Annual Book Awards.
3. **Giannachi**, G., Lowood, H. (Stanford Libraries), Worthey, G. (Stanford Libraries), Rowland, D., Benford, S., Price, D. (2011) 'CloudPad – a cloud-based documentation and archiving tool for mixed reality artworks', paper presented at Digital Humanities 2011, Stanford June 19-22, published in *Digital Creativity* (2012) 1-17.
4. **Giannachi**, G., Sinker, R. (Tate Learning), Keep, M. (Tate Learning), Beaven, K. (Tate Online), Stack, J. (Tate Online), Mundy, J. (Tate Research), McAuley, D., Benford, S., Price, D., Carletti, L. (2012) 'Art Maps', paper presented at Computers and the History of Art (CHArt) 2012, London, 15-16 November 2012.
5. Hertz, B.-S., **Kaye**, N., **Giannachi**, G., Weiner, A., Wreight, S. (2012) *Audience as Subject*, exhibition catalogue, Yerba Buena Center for the Arts, San Francisco.

#### Key grants:

6. **Giannachi**, PI for Exeter in 'Horizon' digital economy research, RCUK funded (2009-14), value to Exeter £264,115. The project involves 19 investigators from Nottingham, Reading, Exeter, Cambridge and Brunel, 36 partners, and works on transport, creative industries and energy, total funding £12,459,687 (excluding industrial contributions).
7. 'Performing Documents: modeling creative and curatorial engagements with live art and performance archives' (2011-14). CI **Kaye**, PI Jones (Drama, Bristol University), CI Clarke (Drama, University of Bristol) and Arnolfini. AHRC award: £452,000. Value to Exeter: £99,800.
8. 'Info-Objects: embedding objects with audience interpretation' (2012). PI **Giannachi**, CI Benford and McAuley (Computer Science, Nottingham University), partner Imperial War Museum. AHRC, Nesta, ACE, Digital R&D Fund for Arts and Culture. Award to Exeter: £8,460.
9. 'Moor Stories: Reimagining the Dartmoor Landscape' (2012). PI **Giannachi**, partners: Royal Albert Memorial Museum and Art Gallery (RAMM) and 1010 Media. REACT (AHRC) HEIF award to Exeter: £6,250.
10. 'Moor Stories: Reimagining the Dartmoor Landscape' (2013). PI **Giannachi**, partners: Royal Albert Memorial Museum and Art Gallery (RAMM) and 1010 Media. REACT (AHRC) award to Exeter: £24,000.

**4. Details of the impact** (indicative maximum 750 words)**Helping professionals and organisations adapt to changing cultural values; generating new ways of thinking that influence creative practice**

**Giannachi** and **Kaye** have collaborated with a number of artists towards the creation of novel forms of documentation that encompass the user experience. The 'Performing Presence' online research facility (2004-11), disseminating the team's research to the general public, had a wide reach, receiving between 260,000-625,000 hits in 2010 alone (5.1). The documentation of the artwork *Life Squared* (2006-9) led to a series of conversations that the creator, an award-winning US media artist, described as follows: 'working with [Giannachi and Kaye] has expanded and enriched original conceptual themes as well as allowed a remapping of strategies that greatly expanded the original notion of what constitutes archives [...] I doubt very much if my work would have expanded as fully as it did without the dialogues with them' (5.2). An impact of this exchange was that the technologist who developed *Life Squared* created a virtual world, Sirikata, and then founded the company Katalabs, aimed at creating virtual worlds that can be embedded in websites and accessed through browsers with WebGL (5.3). Giannachi's research into CloudPad led an award-winning British artist company to devise a new form of archival work, *Riders Have Spoken*, documenting their work *Rider Spoke*, which was shown at British Library as part of their Growing Knowledge Exhibition (2011). The company acknowledged that Giannachi's 'inquisitive, rigorous interrogation and elucidation of the group's work enabled [them] to learn more deeply, reflect more fully and disseminate more widely' (5.4).

**Kaye's** research into the theory and practice of documentation for multimedia and installation practices led to his invitation to act as consultant to the Israel Museum, Jerusalem, for the selection, installation, and curation of the permanent exhibition of artists' film, video and performance documentation in the newly-built 20<sup>th</sup>-century wing. In particular, he contributed to the integration of film and performance art into the galleries. Funded by the Rockefeller Foundation, the wing opened in 2010, receiving c. 400,000 visitors in the first year. Kaye's work contributed to the ongoing enrichment of public appreciation of the Dada, Surrealist, and Fluxus works in the 20<sup>th</sup>-century wing and to the integration of additional media within the galleries (5.5). Kaye also collaborated with Arnolfini, Bristol, towards Version Control, a large-scale interdisciplinary exhibition about the re-use and re-visiting of art works and performances, which received 32,507 visitors between February and April 2013 (5.6).

**Preserving, conserving and presenting cultural heritage**

**Giannachi's** research led to a series of international invitations to arts festivals (ars electronica, Linz 2009; Transmediale, Berlin 2010; ISEA, Düsseldorf 2010; ICK2011, Amsterdam). These in turn prompted numerous subsequent invitations to 'closed' expert workshops on conservation (Netherlands Media Art Institute; Virtueel Platform, the sector institute for e-culture in the Netherlands, Amsterdam 2011; Tate, London 2012; Gulbenkian Foundation, Lisbon, June 2013). The exchanges between Giannachi, museum curators, and sector institutes were influential on the Dutch field of digital arts conservation: 'As a professional in the field of art documentation, I believe the work that has been done on documentation far extends the regular work that is done in museums and arts organizations' (5.7).

**Giannachi's** research with Horizon led to the development of Art Maps, which makes over 68,000 artworks by Tate available through a web app to mobile users. Art Maps, which 'might not only provide valuable data to Tate but also deliver the fundamentals of Tate Learning Strategy and the Mission itself' (5.8), was described by a user as something which 'takes art to people who wouldn't necessarily access it and it broadens other people's horizons, [...] people who probably have never been to an art gallery' (5.9). Art Maps, which has been in receipt of an EPSRC impact award held by project Research Fellow Laura Carletti, was exhibited at Tate Britain as part of the *Looking at the View Exhibition* (February-June 2013). **Giannachi's** collaboration with RAMM on Moor Stories has similarly made it possible to connect the museum's collections from Dartmoor with their original locations. The web app, which has supported RAMM's policy of facilitating access to its collections as widely as possible, has thus far been showcased at RAMM's Festival of Archaeology (2013) (5.10).

**Impact case study (REF3b)****5. Sources to corroborate the impact** (indicative maximum of 10 references)

1. Analytics provided by Stanford University.
2. US artist statement by email 3/4/2011.
3. Katalabs, San Francisco, USA, by email 22/3/2011.
4. UK artist statement by email 29/3/2011.
5. Adina Kamian-Kahzdan (ed) (2010), *Modernism in Dialogue: 20th-Century Painting and Sculpture in the Israel Museum*, Jerusalem: The Israel Museum, p. 9.
6. Analytics provided by Arnolfini, Bristol.
7. Virtueel Platform, Amsterdam, Netherlands, by email 16/7/2011.
8. Tate Online, <http://www.tate.org.uk/context-comment/blogs/art-maps-mapping-art-collection> (25/3/2012).
9. Tate Online, <http://www.tate.org.uk/context-comment/blogs/art-maps-modes-engagement> (22/8/2012).
10. Corroboration can be obtained from the Digital Media Officer, Royal Albert Memorial Museum and Art Gallery, Exeter, UK.