Institution: UCL

Unit of Assessment: 36

Title of case study: Pioneering user engagement using digital methods

1. Summary of the impact (indicative maximum 100 words)

Research in UCL Information Studies enables innovative forms of cultural interaction which encourages a deeper, more personal experience for the public. Our crowd-sourcing transcription project, Transcribe Bentham, has enabled a worldwide audience to participate in the transcription of previously unstudied manuscripts. Our QRator project has empowered museum visitors to think of exhibits as social objects, discussing them with other visitors and curators in three important museums via social media. Both have been recognised and imitated as ground-breaking methods of creating partnerships between the public, the academy and cultural heritage institutions.

2. Underpinning research (indicative maximum 500 words)

The study of how cultural heritage, memory institutions, libraries and archives engage with their users digitally has been a central research theme in UCL Information Studies (DIS) for many years. Often working in interdisciplinary teams, DIS researchers contribute to new knowledge by studying user/visitor expectations, behaviour and motivations, the adoption of digital applications and devices, analysing user behaviour and institutional response. The results enable the design of digital resources that are most suitable for their users. For example, recommendations of the LAIRAH project, that user studies should be incorporated into the design of new digital cultural heritage projects (AHRC funded 2005-6) [a] were used by JISC and AHRC to inform their funding decisions.

QRator and our contribution to Transcribe Bentham grow out of this work: they involve research on user needs and behaviours, using methods we developed for the cultural heritage sector during the LAIRAH project, and make it possible for users to interact with their heritage using social media in ways that would have been impossible without digital methods. The research also investigates the range and efficacy of digital methods for broadening community engagement with cultural heritage.

Transcribe Bentham (http://www.ucl.ac.uk/transcribe-bentham) seeks to understand how difficult a task users interested in culture and heritage can reasonably be asked to contribute to. Can an online audience transcribe historical handwritten documents in an academically rigorous fashion? Will crowd-sourcing document transcription be more effective, in terms of speed, accuracy, or user engagement, than directly employing a transcriber? Our project developed a unique online tool which allows users to participate in online transcription of heritage material in an entirely unprecedented fashion: users transcribe manuscript images, the transcription is moderated and added to an institutional repository [b].

QRator (http://www.qrator.org) investigates these questions: can visitors to a museum be trusted to engage and answer challenging questions posed by a curator? Is it possible to elicit a dialogue between visitors and curators that encourages interpretation and analysis of objects, using digital methods such as iPads placed in the gallery? QRator allows visitors to interact both with each other and museum staff, rather than simply reading museum labels, via ten iPads mounted in the museum, or through QR codes and the Internet of Things enabled website [c, d]. We demonstrated that visitors are interested in engaging in complex dialogues regarding provenance and moral issues surrounding acquisition, retention and display [e].

Both projects involved interdisciplinary teams from several departments. For Transcribe Bentham Professor Melissa Terras (DIS, Director: UCL Centre for Digital Humanities), the Co-Investigator, steered the project towards crowd-sourcing, advised on best practice in Digital Humanities and Digitisation, encouraged the uptake of the project via social media, and advised on the study of use and users in crowd-sourcing, whilst working closely with the University of London Computing Centre and the Bentham Project, led by the PI, Professor Philip Schofield (UCL Laws), in the development and publicity of the crowd-sourcing system. The QRator team consisted of Professor Claire Warwick (PI), Professor Melissa Terras (CI) and Claire Ross (named researcher) (all DIS). DIS researchers oversaw the design of the digital interaction and managed the study of visitor behaviour in the museum. Also part of the project were Dr Andy Hudson-Smith and Steven Gray

(UCL Centre for Advanced Spatial Analysis), Dr Mark Carnall and Tonya Nelson (UCL Museums), and Professor Stuart Robson (UCL Civil, Environmental & Geomatic Engineering).

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

All journals and conference publications listed are peer reviewed. DIS researchers are underlined.

[a] Warwick,C. Terras, M., Huntington, P., and Pappa, N. (2008). "If You Build It Will They Come? The LAIRAH Study: Quantifying the Use of Online Resources in the Arts and Humanities through Statistical Analysis of User Log Data". *Literary and Linguistic Computing*. 23(1), 85-102. Submitted to REF2.

[b] Terras, M. (2011). "Present, Not Voting: Digital Humanities in the Panopticon. Closing Plenary Speech, Digital Humanities 2010". *Literary and Linguistic Computing*. 26 (3), 257–269. doi:10.1093/llc/fqr016

[c] Ross, C. Carnall, M., Hudson-Smith, A., Warwick, C., Terras. M. and Gray, S. (2013). "Enhancing Museum Narratives: Tales of Things and UCL's Grant Museum". In Farman, J. (Ed). *The Mobile Story: Narrative Practices with Locative Technologies*. Routledge. pp. 267-290. Available on request.

[d] Gray, S., Ross, C., Hudson-Smith, A., Warwick, C., M. Terras (2012). "Enhancing Museum Narratives with the QRator Project: a Tasmanian devil, a Platypus and a Dead Man in a Box." Museums and the Web 2012, April 2012, San Diego. http://www.museumsandtheweb.com/mw2012/papers/enhancing_museum_narratives_with_the_qrator_pr

[e] Ross, C., Gray, S., Warwick, C., Hudson-Smith, A., and Terras, M. (2012). "Engaging the Museum Space: Mobilising Visitor Engagement with Digital Content Creation." Digital Humanities 2012, 16-22 July 2012, University of Hamburg, Germany. http://www.dh2012.uni-hamburg.de/wp-content/uploads/2012/07/HamburgUP_dh2012_BoA.pdf pp 348-351

Grants:
Bentham Papers Transcription Initiative
     PI: Professor Philip Schofield. Co-Is: Martin Moyle, Professor Melissa Terras
     AHRC Digital Equipment and Database Enhancement for Impact Scheme
     £261,000 March 2010-March 2011
Transcribe Bentham
     PI: Professor Philip Schofield. Co-Is: Professor Melissa Terras, Martin Moyle
     Andrew F Mellon Foundation Scholarly Communications Programme
     [text removed for publication] October 2012-October 2014

4. Details of the impact (indicative maximum 750 words)

Research at DIS gives the public and museum visitors new ways to make sense of their heritage and engage in dialogue and partnerships with academics and curators. While other museums had previously used interactive displays, QRator is the first project in the world to allow visitors to enter into a conversation with museum professionals and other visitors, rather than simply absorbing what the labels tell them. Transcribe Bentham gives members of the public unprecedented access to primary historical material and the ability to take part in a project that adds to public understanding of history, philosophy and culture in Jeremy Bentham's time. Our research therefore benefits the public, whether they are museum visitors using interactive labels, or internet users employing crowd-sourcing, social media technologies or the internet of things. It has also had a profound impact on the work of cultural heritage professionals, museum curators, archivists, and special collections librarians.

Engaging the public with historical records

Transcribe Bentham enables the public to become part of the research process of interpreting historical documents – here untranscribed manuscripts by the 19th century philosopher Jeremy Bentham – in a way that was previously only possible for professional archivists and historians.[1] Since its public launch in September 2010, Transcribe Bentham has enabled 3,051 people from 21 countries to contribute to the transcription of over 5,862 documents (an estimated 2.9 million words), demonstrating a genuine public desire to contribute time and effort to preserving and making this archive accessible. Several users returned repeatedly and transcribed several different

manuscripts.[2] The project has attracted widespread press and blog coverage as a new model for public participation and the unprecedented access it gives users, who have no previous training in palaeography, to unique historical materials: 31% of users enjoyed being part of the project because of an interest in history or philosophy [2,3].

In 2011, Transcribe Bentham's innovative approach was recognised with the "Award of Distinction" in the "Prix Ars Electronica" – the world's foremost digital arts competition – in the Digital Communities category. The jury commented that: 'this is likely the first initiative to open up such scholarly social research to the masses'. It was runner-up in the DISH Digital Heritage Award 2011 and the 'Platforms for Networked Innovation' competition, run by the EU-funded Knetworks project and was nominated for EngageU Award (European Competition for best Innovations in University Outreach and Public Engagement) 2012.[4] The value of this approach was recognised through subsequent funding to develop and expand it: in 2012, the Mellon Foundation awarded Transcribe Bentham a grant [text removed for publication] to modify and improve the interface, and provide ongoing support to the user community, and it became part of an EU FP7 project on manuscript transcription: TranScriptorium, worth £220,838.

Further evidence of its success is the re-use of its open-source code by the Public Record Office of Victoria's for its transcription initiative. This will enable PROV to make historical records available to the public for the first time.

Changing practices and improving visitor experience in museums

Since its launch in March 2011, QRator has demonstrated the feasibility of social media as an outreach mechanism for the museum sector: it showed that given "radical trust", users behave responsibly. It has proven immensely successful at UCL's Grant Museum with 83% of over 4,300 comments between launch and July 2013 being on topic or about the museum as a whole (41% and 42% respectively) [8]. Assuming visitors leave one comment per visit, an estimated 1/3 of visitors to the museum have contributed, as opposed to the tiny number who previously wrote in the visitors book or spoke to staff. The comments have provided curators with insight into the needs and opinions of visitors, allowing them to better shape the visitor experience, and plan and present future exhibitions.

Contributing to sector debate on museums and the public

QRator attracted significant interest from the museums and scientific community during the impact period [5]. It was nominated for a Museums and the Web Best of the Web Award 2012 and won a UK Museums and Heritage Award for Excellence 2012 in the Innovation category: 'The judges can see clear potential for use of this technology to be applicable to many different organisations and their collections. It is impressive in the way it encourages participation within museums but also, importantly, in maintaining that participation beyond the walls of the museum when visitors have returned home.' [6] Where many museums have 'over-modernized with too much emphasis on interactive displays', QRator, described as 'unobtrusive social media', blended easily with the classic exhibition style of the Grant Museum of Zoology [7]. QRator also featured in the highly prestigious NMC Horizon Report: Museum Edition 2011, which identified our work as a model for the rest of the sector: 'Incorporates QR codes into exhibits that link to a rich database of curated content and allow users to document and share their own interpretations of the collections with each other.' [9] This is a highly selective publication about new technologies in museums: decisions about inclusion are made by an international committee of museum professionals and it is widely read and respected.

Influencing practice in other museums

The Horizon Report discusses the future of museums: two museum partnerships subsequently put this into practice. As a result of QRator's success, in 2011 the Imperial War Museums (IWM) invited us to collaborate on a bid to NESTA's Digital Research and Development Fund for Arts and Culture. It was ranked first of 495 applications [10]. This led to the Social Interpretation Project installed at IWM North and IWM Lambeth's *A Family in Wartime* exhibition. Its interactive methods, inspired by QRator, allowed visitors to enter into a digital conversation with curators and other visitors using social media, interactive touch screens, and the IWM website. Between July and December 2012, visitors to IWM North made 8,791 comments, 42% of which were on topic and

26% about the museum; between April and December 2012 visitors to IWM Lambeth made 18,115 comments, 19% on topic and 33% about the museum. [11] Methods of digital interaction developed on QRator were thus applied successfully to a large national museum, allowing visitors to interact with exhibits and each other.

QRator was also been deployed in the Museum of Brands as part of an Arts Council funded collaboration between UCL, The University of the Arts and various London museums (£100,000 total funding: £10,000 to QRator). As in the Grant Museum, about 1/3 of visitors made comments, and most found the experience enjoyable. [text removed for publication]

5. Sources to corroborate the impact (indicative maximum of 10 references)

1. 'Scholars recruit public for project', by Patricia Cohen, *New York Times*, 27 Dec 2010. (circulation 951,063) (http://www.nytimes.com/2010/12/28/books/28transcribe.html)
'Help transcribe Jeremy Bentham', by Christopher Shea in the *Boston Globe*, Sep 10th 2010.(circulation 232,432) (http://www.boston.com/bostonglobe/ideas/brainiac/2010/09/help_transcribe.html)

2. Causer, T and Wallace, V. (2012) Building A Volunteer Community: Results and Findings from *Transcribe Bentham. Digital Humanities Quarterly, 6.2* (http://www.digitalhumanities.org/dhq/)

3. Transcribe Bentham recommended as a model for community engagement at meeting of Public History committee of the Historical Association, Oct 11th 2010. (http://www.history.org.uk/resources/public_resource_3554.html)

4. Prix Ars Electronica 2011: Digital Communities section (http://prix2011.aec.at/winner/403/). Jury Statement: *Transcribe Bentham*'s nomination for 2011 Digital Heritage Award, Susan Hazen, *Digital Strategies for Heritage 2011*, 28 November 2011. (http://www.dish2011.nl/news/transcribe-bentham). Knetworks and EngageU awards to Transcribe Bentham: (http://blogs.ucl.ac.uk/transcribe-bentham/awards/)

5. Home of dodo pelvises and quagga bones spreads its wings – *New Scientist* (circulation 137,605) (http://www.newscientist.com/blogs/culturelab/2011/03/a-new-lease-of-life-for-extinct-animals.html); UCL's Grant Museum of Zoology to reopen – *Wired*, 2 March 2011 (circulation 819,457) (http://www.wired.co.uk/news/archive/2011-03/02/grant-museum-zoology); Digital and mobile labels – *Museum Practice* 17 October 2010 (http://www.museumsassociation.org/museum-practice/exhibition-labels/17102011-digital-labels) (PDF available on request)

6. Museums and Heritage Awards. 2012. (http://www.museumsandheritage.com/awards/award-winners-2012/)

7. Pickled Moles And iPads: Grant Museum Set To Reopen. *The Londonist*. (http://londonist.com/2011/03/pickled-moles-and-ipads-grant-museum-set-to-reopen.php)

8. see p. 349 in section 3 [e] above.

9. NMC Horizon Report 2011. (http://www.nmc.org/publications/horizon-report-2011-museum-edition)

10. Eight Finalists chosen to pioneer Digital R&D Projects. NESTA, 26/9/2011 (http://www.nesta.org.uk/home1/assets/features/eight_finalists_chosen_to_pioneer_digital_research_and_development_projects)

11. Ross, C. (2013) PhD research in progress, data available on request.

[text removed for publication]