Impact case study (REF3b)

Institution: University College London
Unit of Assessment: 20 – Law
Title of case study: Bringing Jeremy Bentham to a 21st century public
1. Summary of the impact (indicative maximum 100 words)

UCL's Bentham Project has developed an international award winning public engagement and knowledge transfer initiative that brings the views of the renowned 18th century philosopher and reformer, Jeremy Bentham, to life for the modern world. By creating the Bentham Papers Catalogue, Digital Database and crowdsourcing project *Transcribe Bentham,* the Project has:

- Broken down traditional barriers between the public and academic researchers by inviting the public to play a part in complex academic research;
- Developed history, IT and analytical skills in thousands of members of the public around the world;
- Engaged the public with Bentham's ideas at a time when they are of increasing contemporary relevance;
- Speeded up the transcription of Bentham's manuscripts;
- Contributed to the worldwide development of online transcription tools.

2. Underpinning research (indicative maximum 500 words)

The Bentham Project was founded at UCL in 1959 to produce the new authoritative edition of *The Collected Works of Jeremy Bentham* from the vast collection of Bentham manuscripts in the UCL Special Collections. Bentham's views were visionary, and it was recognised that they had great significance for contemporary debates on important issues such as prison reform, international law, religion, democracy, sexuality and animal welfare. The problem confronting the Bentham Project was how to decipher the thousands of folios (and millions of words) Bentham had left behind.

Achieving the goal of the Bentham Project requires transcribing and then analysing all the manuscripts in the vast collection of Bentham Papers held by UCL, as well as those in the British Library. The UCL collection forms the main body, with approximately 60,000 folios (c. 30 million words). Professor Philip Schofield, Director of the Bentham Project since 2001, has pioneered an award-winning, innovative approach to solving this problem, which harnesses the power of the internet and the public around the world to transcribe Bentham's words for the 21st century.

Bentham Papers Catalogue: The first step was to conduct research on the UCL folios to create a catalogue of all the manuscripts. Schofield's core research, which has produced 8 volumes of the *Collected Works* [a], provided him with a deep understanding of the manuscripts and enabled him to devise the specification for the entire catalogue. From 2003–06 Schofield designed and led an AHRC-funded project that produced a searchable Catalogue [b] of all the Bentham Papers held at UCL, with Deborah McVea compiling the catalogue under Schofield's direction.

Digital Database: With a Catalogue, Schofield then set out to create a Digital Database [c] of high quality Bentham manuscript images and a transcription tool for online transcription. Under an AHRC grant, in 2010–11 Schofield worked collaboratively with UCL Library Services (Martin Moyle) and UCL Design, Photography and Web Services (Tony Slade) to create digital images, and he guided the University of London Computer Centre (Richard Davies) in programming a transcription tool according to his specification for encoding the manuscript elements. Schofield also led a team of Bentham Project Research Associates Justin Tonra (1/5/10–30/9/10), Valerie Wallace (12/4/10–31/3/11) and Tim Causer (1/10/10–present) that produced a transcription tutorial, Transcription Desk and image viewer. Out of this Digital Database came the idea to harness the internet and the public to accelerate the pace of transcription (crowdsourcing).

Transcribe Bentham: Launched in September 2010, the crowdsourcing project *Transcribe Bentham* [d] was formulated as an experiment:

- Could volunteers without previous training read and decipher Bentham's handwriting and deal with composition and structural features of the manuscripts?
- Could the public then mark the manuscripts up in the required encoded text language?
- Could the public navigate Bentham's idiosyncratic style and his dense and challenging ideas?

- Would the work be of sufficient quality to be used in the Bentham Project's editorial work?

Anyone in the world with an internet connection can participate in *Transcribe Bentham*. After registering, participants transcribe Bentham's manuscripts into a text box and encode the features of the manuscripts in Text Encoding Initiative (TEI) compliant language (XML). Schofield worked with UCL Digital Humanities (Melissa Terras) on designing outreach for *Transcribe Bentham*, and his research team conducted follow up research in 2011 [e] to measure the project's success.

Having demonstrated that *Transcribe Bentham* could produce public transcription of sufficient quality to serve as a basis for the Bentham Project's editorial work, in 2012 Schofield secured funding from the Mellon Foundation to create a publicly accessible **Digital Repository** for the Bentham Papers [f]. This includes the British Library Papers, and will reunite in digital form the collection broken up at Bentham's death. *Transcribe Bentham* also became part of *TranScriptorium* in 2012, a European Commission funded project which uses the *Transcribe Bentham* transcription tool as a prototype for transcription in other languages.

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

[a] *The Collected Works of Jeremy Bentham,* ed. P. Schofield (2003–), London and Oxford, Vols. 18–28 (1993–2012) are available on request

[b] The Bentham Papers Catalogue http://bit.ly/1b4Rk35

[c] The Bentham Papers Database http://www.benthampapers.ucl.ac.uk/

[d] Digital Images and Transcription Tool: *Transcribe Bentham* (website) http://bit.ly/HWh7hj

[e] T. Causer and V. Wallace (2012), "Building a volunteer community: results and findings from *Transcribe Bentham*", *Digital Humanities Quarterly*, Vo.6 No.2 http://bit.ly/1ef9LRh

[f] Bentham Manuscripts Digital Repository: http://bit.ly/18jJGQ7

Grant holder: Professor Philip Schofield; **Grant title:** Catalogue of the Papers of Jeremy Bentham at UCL Library; **Sponsor**: AHRC; **Period of grant**: 1 April 2003 to 31 March 2006; **Value of grant:** £136.392. Led to [b].

Grant holder: Professor Philip Schofield; **Grant title:** The Bentham Papers Transcription Initiative; **Sponsor**: AHRC Digital Equipment and Database Enhancement for Impact Follow-on Fund; **Period of grant**: 1 March 2010 to 30 April 2011; **Value of grant:** £262,673. Led to [c, d and e].

Grant holder: Professor Philip Schofield; **Grant title:** The Consolidated Bentham Papers Repository; **Sponsor:** Andrew W. Mellon Foundation; **Period of grant:** 1 October 2012 to 30 September 2014; **Value of grant:** $538,000 (US). Led to [f].

Grant Title: *TranScriptorium;* **Sponsor:** European Commission, Seventh Framework Programme (FP7); **Period of grant:** October 2012 to September 2015; **Value of grant**: €2,432,826 for the consortium of which €294,451 to UCL Bentham Project.

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

Transcribe Bentham has done what few if any other academic research projects have been able to do: it has engaged thousands of members of the public around the world in legal historical research. In doing so it has helped develop history, IT and analytical skills in the general public, and also demonstrated how crowdsourcing can be used much more widely as a tool for transcription in other settings and in other languages.

Bringing Bentham to the masses

By 2013, the *Transcribe Bentham* Transcription Desk had received over 1.9 million page views and had received 47,386 visits from 19,462 unique visitors from 125 countries [11].

- The top 10 countries for visitors are: the US (79,959 visits); UK (55,567); Canada (11,658); Australia (5,824); Germany (5,152); New Zealand (3,469); France (2,910); Italy (2,610); Brazil (2,584); and the Netherlands (2,427) [11].
- The Project has used a combination of blogging and social media (Twitter and Facebook) to increase participation. By August 2012, *Transcribe Bentham* had acquired 853 followers on Twitter and 339 fans on Facebook [9, para.19].

Transcribe Bentham has attracted over 4,000 registered users:

- 400 of these users have gone on to transcribe material [10];
- 6,416 manuscripts (estimated 3.2 million words) have been transcribed or partially-transcribed, and 95% of these are of sufficient quality to be uploaded to the Digital Repository [10;
- A third of transcribers are under 40, a fifth are over 60 [9, para.41] and two-thirds are female, unlike other crowdsourcing projects which attract a primarily male following [9, para. 39].

The project has received extensive media coverage around the world:

- Despite mainly targeting English-speakers and the UK, the project has received media coverage in US, Australia, Japan, Germany, Norway, Sweden, Austria and Poland [8].
- A 2010 article in the *New York Times* [4] had a vital and enduring impact on *Transcribe Bentham*: with 11 visits to the project website the day before the article, and 1140 visits on the day of the article [9, para. 33]; this kick-started the formation of the large and engaged user community described above.
- When *Transcribe Bentham* project volunteers uncovered a collection of recipes intended for Bentham's panopticon prison, the Michelin-starred London restaurant, St John Smithfield, cooked one for Radio 4's *PM Programme* and it was incorporated into the restaurant menu [5].

Public participation in legal history and development of IT skills

The creation of a freely available digital collection of the Bentham Papers to complement the printed texts has widened access to and encouraged user participation with Bentham's writings. *Transcribe Bentham* recruited an active user community engaged in heavyweight transcription. This is remarkable because, unlike most crowdsourcing projects where material is straightforward to decipher, Bentham manuscripts are not easy to read. The result is that the project has also helped to develop IT and analytical skills among the public:

- Only a minority of transcribers had ever worked with manuscripts or had any specialised training in reading historical handwriting prior to taking part in *Transcribe Bentham* [9, para. 42].
- Bentham's handwriting is complex and time-consuming, requiring concentration and commitment. Many transcribers found the intellectual challenge and puzzle-solving aspect of transcription enjoyable and highly rewarding, with several comparing deciphering Bentham's handwriting to solving a crossword or Sudoku [9, para. 56].

The truly unique and innovative impact of *Transcribe Bentham* has been recognised internationally, winning the 2011 *Prix Ars Electronica* Award of Distinction in this leading Digital Arts competition:

- The 2011 *Prix Ars Electronica* jury commended *Transcribe Bentham* for its "*potential to become a standard tool for scholarly crowdsourcing projects*", and its "*potential to create the legacy of participatory education and the preservation of heritage or an endangered culture*" [2, p. 206].
- *Transcribe Bentham* was also shortlisted for the 2011 *Digital Heritage Award* [13].

Influencing worldwide transcription and the wider information sector

Transcribe Bentham demonstrates that there is a worldwide audience of potential volunteers who are willing and able to engage in demanding crowdsourced tasks. If untrained volunteers are able to transcribe the papers of Jeremy Bentham, some of which border on the illegible, this has shown that they can transcribe almost anything. The Bentham Project has made the code for the transcription tool freely available to download [d], and *Transcribe Bentham* and its outreach activities are being used as a model for other similar initiatives worldwide. For example:

- The Public Record Office of Victoria has launched a pilot project with the public to transcribe historical documents in its archive, using the *Transcribe Bentham* transcription tool [6].

- The *Transcribe Bentham* image viewer and transcription toolbar is now being used by the Irish *Letters of 1916: Creating History* project (based at Trinity College Dublin) [12].
- Bentham Project staff have been consulted on how the initiative can be used elsewhere by: the Natural History Museum, National Library of the Netherlands, Library and Archives Canada, Royal Library in Denmark, San Diego Natural History Museum, J. Paul Getty Research Institution and Church of Jesus Christ of Latter-Day Saints [10].
- The European Commission-funded *TranScriptorium* project is using the *Transcribe Bentham* transcription tool as a prototype tool for crowdsourcing material in other languages as part of its wider project to develop computers and programmes to read handwriting. Consortium partners include the Dutch Institute for Lexicology and Greek National Centre for Scientific Research, as well a number of academic institutions: the University of Valencia, University of Innsbruck, University of London Computer Centre and UCL's Bentham Project [9].

Advancing the Bentham Project

Given that the transcription task is much more onerous and demanding than in most other crowdsourcing projects, the amount of work completed by *Transcribe Bentham* volunteers is quite remarkable. Volunteers transcribed an average of thirty-five manuscripts each week [9, para. 45]:

- This has speeded up publication of *The Collected Works*. It is estimated that *Transcribe Bentham* could save between six months and one year of an academic editor's time [10].
- Without *Transcribe Bentham*, it will take at least 70 years to transcribe the remaining Bentham Papers. With *Transcribe Bentham* volunteers transcribing at the current rate, it will take about 35 years. If more volunteers can be recruited, it could be done in 12–17 years.
- These user-generated transcripts will be added progressively to the Digital Repository, and in this way the whole Collection is being further enhanced as time goes on.
- The project has resulted in significant publicity for Bentham studies, history and philosophy more generally. In a 2010 roundup of crowd-sourced transcription, the software engineer and expert on crowdsourcing Ben Brumfield noted that *Transcribe Bentham* has done "*more than any other transcription tool to publicize the field*" [3].

Thus, the Project has proven how right Bentham was when he wrote: "*Many hands make light work. Many hands together make merry work*".

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

1) List of winners in the 2011 *Prix Ars Electronica:* http://archive.aec.at/#42434
2) B. Achaleke, G. Harwood, A. Koblin, L. Yan, and T. Peixoto (2011), "Statement of the Digital Communities Jury" in H. Leopoldseder, C. Schöpf, and G. Stocker (eds), *Prix Ars Electronica International Compendium: CyberArts 2011*. Hatje Cantz, Ostfildern. Available on request.
3) B. Brumfield (2011), "2010: The Year of Crowdsourcing Transcription": http://bit.ly/17j2vC2
4) P. Cohen (2010), "For Bentham and Others, Scholars Enlist Public to Transcribe Papers", *New York Times* http://nyti.ms/1ef9XzX
5) BBC Today programme: http://bit.ly/1iqkStu
6) Public Records Office of Victoria, Pilot Transcription Project: http://bit.ly/IdJyHf
7) List of publicity which *Transcribe Bentham* has received from external sources: http://www.ucl.ac.uk/transcribe-bentham/publicity/ Also see Austrian radio programme: http://oe1.orf.at/programm/294290 and Deutsche Welle radio: http://bit.ly/f2QUkE
8) *TranScriptorium* website: http://transcriptorium.eu
9) T. Causer and V. Wallace (2012), "Building a volunteer community: results and findings from *Transcribe Bentham*", *Digital Humanities Quarterly*, Vol. 6 No. 2. An externally peer reviewed publication that compiles factual data quoted here. http://www.digitalhumanities.org/dhq/vol/6/2/000125/000125.html
10) T. Causer, J. Tonra, and V. Wallace (2012), "Transcription maximized; expense minimized? Crowdsourcing and editing *The Collected Works of Jeremy Bentham*", *Literary and Linguistic Computing*, Vol. 27, No. 2, pp. 119–37. An externally peer reviewed publication that compiles factual data quoted here. http://llc.oxfordjournals.org/content/27/2/119
11) Google analytics report on Transcribe Bentham website. Available on request.
12) *Letters of 1916: Creating History* project: http://dh.tcd.ie/letters1916/about/acknowledgements/
13) Digital Heritage Award 2011**:** http://www.dish2011.nl/news/digital-heritage-award-2011-nominees