

**REPORT ON THE CURRENT STATE  
OF  
DIGITAL HUMANITIES RESEARCH AND RESOURCES AT CAMBRIDGE**

**(APRIL 2009)**

**KATIE BOYLE**  
[kvb20@cam.ac.uk](mailto:kvb20@cam.ac.uk)

*Commissioned by the PVC for Research in association with CRASSH*

*Acknowledgements:*

David Good (CMIT)  
Catherine Hurley (CRASSH)  
Mary Jacobus (CRASSH)  
Tamsin Mann (RSD)

## Executive Summary

The deployment of various information and communication technologies over the past decade and more in the Humanities<sup>1</sup> has had a significant impact. They have improved access to the materials needed for research; given scholars far greater opportunity to collaborate with one another; and have opened up a variety of new analytic techniques often through collaboration with other disciplines. These changes are not peculiar to the Humanities, but they are having a distinctive and ‘disruptive’ impact given the previously non-technical character of its practices. Each of them has resulted in new competitive pressures as the benefits resulting from privileged access to materials and other scholars are less evident, and new analytic techniques enable new critical and theoretical perspectives to emerge. They have resulted in changes to the behaviour of funders who are directing ever increasing resources to the eHumanities, and of our peer institutions who have taken important steps to capitalise on the opportunities which have emerged.

This report offers a snap-shot of the nature and extent of the eHumanities at the University of Cambridge, and its potential for development. Material has been gathered from across the disciplines in both CSAH & CSHSS, and includes information about specific projects and people involved, general resources for eHumanities, and barriers to change. The essential findings are:

- A wide and varied range of digital and quasi-digital research is currently being undertaken across both schools, but unevenly and it is not ‘joined up’ (see Appendix);
- A sharp divide between faculty who do use digital resources and tools for their research and those—the major proportion—who do not;
- CARET and the UL provide important facilities such as Camtools and access to eHumanities resources, and a rapidly expanding potential for VREs;
- Needs, requirements, and support for eHumanities research included requests for instruction, linked and easily locatable expertise, and dedicated/available staff;
- Lack of investment impedes effective response to eHumanities funding calls, while research is impeded by lack of time, lack of expert assistance, or lack of knowledge.

The report concludes that despite the presence of high quality individual projects at Cambridge, the University is already lagging behind its peers, and runs the risk of forever running to catch up with a fast-moving field if it misses the opportunity to act now. Comparison with peer institutions shows that a number have already set up dedicated centres for e-research. Some, e.g. Oxford, are moving rapidly ahead. The future of eHumanities, and one might say Humanities, research at Cambridge requires a strategy to cope with this exceptional ‘disruptive’ change to the technologies in and through which research is conducted. It is beyond the scope of this report to offer a strategy, but the work done identifies a number of matters a strategy would need to cover. These include:

- Involvement of senior faculty to provide leadership;
- Linking of individual projects to related activities here and at other Universities;
- Embedding eHumanities research training to provide a solid base of research capacity, and to train the next generation of researchers;
- Winning funding from external bodies to support eHumanities developments here.

There are many ways in which a strategy might be implemented, but a coherent register of information and people would help no matter what that strategy is. Similarly, any strategy to support eHumanities will involve collaboration between the Schools, CRASSH, and other bodies such as the Computing Service, Library and CARET.

The University as a whole could, of course, ignore these changes in the hope that we will muddle through and come out on top with a bit of luck. The peculiar challenge now facing the Humanities suggests that this is unlikely to be a winning strategy.

---

<sup>1</sup> The term Humanities will be used to refer to the Arts, Humanities and Interpretive Social Sciences.

## INTRODUCTION

This report sets out to gauge the use of digital resources and the nature and extent of digital research in the Arts, Humanities and Social Science community at the University of Cambridge, and their potential for development. It was stimulated by participation in the North American and European 'Project Bamboo' scoping exercise (see <http://projectbamboo.org/>).<sup>2</sup> One function of this exercise, involving over 150 universities in N. America and Europe, has been to stimulate conversations within and across institutions and create links between groups of digital Humanities researchers and academics with allied projects and shared concerns. A recent authoritative assessment of the current state of eHumanities Research in the US can be found in the report by the American Council of Learned Societies (ACLS), *Our Cultural Commonwealth: The final report of the American Council of Learned Societies Commission on Cyberinfrastructure for the Humanities & Social Sciences* (December 2006).<sup>3</sup> Both take as their starting points the exponential growth in digital research in all fields of the Humanities over the past decade; and the paradoxical lack of engagement of a proportion of traditional Humanities researchers despite this rapid increase in research activity.

In this context the term 'digital resources' includes not only electronic texts, digital images, internet searching, web-only resources, online journals and electronic or digital archives, but also some indication of purpose-built tools or software<sup>4</sup>. Today the results of research projects are now often made available in digital format, most frequently as a website to accompany articles published in journals or major editions (online, hard copy or both). Some research funding agencies now insist that results are made available online. For example, the Wellcome Trust's award terms and conditions require that all research papers arising from Wellcome Trust funded research (including History of Medicine) must be made available on the PubMed Central website (<http://ukpmc.ac.uk/>) within six months of publication. It is now standard for many Humanities projects to include a digital element even if not primarily in digital mode, and JISC funding calls for digital projects are now a frequent and regular occurrence.

In recent years, as a result of this activity, web-based resources have become plentiful and sophisticated. Tools 'borrowed' from the e-Science community are used to create Virtual Research Environments (VREs) so that researchers in different locations (often different continents) can exchange documents, images, ideas and data, and contribute to a single meta-document or web-resource. VREs are now used by the archaeological community to reconstruct excavated sites and to associate documents with artefacts. Text-based and editing tools, image/text combinations, and geographical imaging are increasingly employed by Arts, Humanities and Social Science researchers: see for example, from Cambridge University, Remote Sensing in Inaccessible Lands (<http://www.archatlas.org/workshop/Petrie07.php>) and, from elsewhere, VERA (<http://vera.rdg.ac.uk>). Such web 2.0 resources invite participation from users as well as the author, or co-authors. The emphasis is on collaboration and feedback, which can take the form of text, images, sound or multi-media. As a result of technological and software development, research methodology and outputs are changing fundamentally in some disciplines. Such changes will see increased need for a cyber-infrastructure to support projects, and expertise to use that infrastructure. Interoperability is another issue faced by the users of digital resources of all types, including users of digitized library collections. In the face of this wealth of resources, training needs to be provided so that researchers understand both the potential and the limits of available tools. At the same time problems associated with technology obsolescence are endemic in a fast-moving field.

---

<sup>2</sup> For the planning document, see [http://projectbamboo.org/files/docs/bamboo\\_proposal.pdf](http://projectbamboo.org/files/docs/bamboo_proposal.pdf)

<sup>3</sup> <http://www.acls.org/cyberinfrastructure/OurCulturalCommonwealth.pdf> ACLS

<sup>4</sup> Papers from the AHRC's ICT programme: [http://www.ahrcict.rdg.ac.uk/activities/strategy\\_projects/reports/index.htm](http://www.ahrcict.rdg.ac.uk/activities/strategy_projects/reports/index.htm) and the VADS user needs survey [http://vads.ahds.ac.uk/reports/user\\_survey/survey%20questionnaire.html](http://vads.ahds.ac.uk/reports/user_survey/survey%20questionnaire.html) were referred to for this section.

Since mid-September 2008, an initiative has focused on gathering relevant information on the 'state of play' in the digital Arts, Humanities and Social Sciences at the University of Cambridge. The exercise has involved two workshops and numerous interviews with researchers active in the digital field, as well as a short online questionnaire aimed at Humanities researchers. The following report is based on the results of these information-seeking-activities.

The general (i.e. non-project-specific) questions were as follows:

- Who, within the Arts/Humanities/Social Science domain at the University of Cambridge, is actively using technology in their research?
- What are they using it for?
- Who would be interested in doing so if the means and support were (more) easily available?
- How much awareness is there of the potential for digital research activity, especially amongst those not currently active in the field?
- What are the obstacles to the use of digital tools or involvement in digital research for Humanities researchers at all levels, and how can they be overcome?
- How and why should the University invest in resources and research in the digital Humanities at Cambridge?

## **1. ASCERTAINING CURRENT USE OF DIGITAL RESOURCES: A SURVEY AND MAPPING EXERCISE**

This Digital Humanities investigation was launched in September 2008 with the aim of providing a snapshot of digital research activity in the Arts, Humanities and Social Sciences at Cambridge University. A similar exercise has recently been launched in the Humanities Division at the Oxford University. The first stage of the Cambridge initiative involved a survey of current use of, and interest in, digital resources (<http://freeonlinesurveys.com/rendersurvey.asp?sid=8yk8y60zpyqtj07507495>) (<http://www.crash.cam.ac.uk/page/276/e-Humanities--crash.htm>). The survey was followed by a mapping exercise designed to understand the current level of activity and interest at Cambridge, and if necessary take stock of impediments to increased activity. It took the form of face-to-face interviews and conversations with individuals currently involved in relevant research and digital service provision.

## **2. RESULTS: EVIDENCE FOR EXISTING eHUMANITIES RESEARCH**

### **2.i. Digital Research Personnel**

Virtually everyone who completed the survey admitted to using digital resources (broadly defined) on a daily basis. Of those who completed the online survey 14% admitted to using 'digital resources' only once a week. Most people (86%) use them daily – almost without realising. Roughly 45% of respondents classified themselves as researchers, 32% as teachers, 6% as research facilitators and only 5% as librarians. For roughly 48% of respondents the main place of work was the department or faculty, for 26% college, for 11% library, and -interestingly - for 11% the main place of research was described as 'home'. Research, teaching and administration were the main responsibilities, at approximately 37%, 29% and 19% respectively.

Not surprisingly, a number of different categories of 'Humanities' researchers and faculty can be identified within the university according to the degree and purpose of their use of digital resources:

- Those who do not use digital resources and are not interested; this group includes those who describe themselves as 'Cambridge institutionalised' or embedded in the system, and feel that the system works well for them. It is worth noting that this is not entirely generational.
- Those who are fully aware of and already use digital resources and are involved in eHumanities research, but want no further information since they feel that they already know what they are doing and what tools they need to do it.

- Research-active individuals who do not need ‘further exhortations about the benefits of digital resources in general’ but who are always interested in learning about *specific* uses of *specific* digital resources which are likely to be relevant to their own field of work. Such people feel that they usually get a fair amount of updating from specialist sources in their fields about what resources are available and have no need of information about the potential of digital resources in general.
- Those who use digital resources very little but are aware that they are probably missing something and feel that their work would benefit from more experience and expertise. However, many of these are senior research or academic staff with little or no time available. As a result, they frequently depend on the ‘younger generation’ of RAs to do their digital work for them in projects they oversee. It is perhaps this last group which could be targeted as potential partners in a learning/teaching exercise.<sup>5</sup>

## 2.ii. eHumanities Research Projects

A wide and extremely varied range of digital and quasi-digital research is currently being undertaken among the Arts, Humanities and Social Science community at Cambridge (details of individual projects are provided in Appendix I). Although the number of projects is significant, the spread across faculties and subject areas is uneven and/or not ‘joined up’. Some of this research is fully digital, in the sense that the work itself is carried out almost entirely at the computer (e.g. Digital Himalaya <http://www.digitalhimalaya.com> and A Historical Corpus of the Welsh Language <http://people.pwf.cam.ac.uk/dwew2/hcwl/menu.htm>). Other apparently digital research is in fact digital presentation in web-page form of results of other work, e.g. Changing Beliefs in the Human Body (<http://www.arch.cam.ac.uk/lrp/intro.html>). It is of course no less valuable, but constitutes a different kind of resource in the sense that it is not dynamic or interactive but static.

The research projects currently being undertaken within the Arts, Humanities and Social Sciences concern modern and historic/prehistoric records/data and fall into a number of broadly-defined categories according to the type of material with which they are concerned and the methodologies employed in the research. They involve image and textual data, geospatial information, taxonomy and sound. Many of them are archival projects, providing increased access to material which would not be available in any other way, e.g. the *Darwin Correspondence Project* and the *Digital Himalaya Project*.

- Text-based projects ‘use’ and compile text, and result in large databases which form the backbone of such projects. For example, the *Scriptorium Project* (Faculty of English) provides a set of browsable and searchable facsimiles of manuscripts, as well as an interactive teaching resource (‘handwriting’). The *Taylor-Schechter Genes Project* (University Library) involves digitisation of 312,000 images of manuscripts (text). The *Primary Sources of Copyright* (Faculty of Law) project involves compilation of copyright-related text dating as far back as the invention of the printing press. The *Historical Corpus of Welsh Language 1500-1950* is producing a historical corpus of Welsh texts from the period 1500-1850 in an electronic format. Meanwhile the *Parker Library on the Web* is an interactive, web-based workspace designed to support use and study of the manuscripts in the historic Parker Library at Corpus Christi College, Cambridge. It is run by Corpus Christi College and Stanford University and comprises information pages, high resolution images of all the pages in Parker Library manuscripts (text), descriptive metadata that enable access to the manuscripts and their contents, and bibliographic references to related scholarship. Such projects require access to suitable computer hardware and accessories, database software and time/staff costs.
- Image based projects frequently result in impressive graphic/image web sites, again with a large if not huge database in the background. Such projects include the *Shahnama* project which provides an electronic corpus of paintings in Shahnama manuscripts (images are viewable online with a password), and the JISC funded and DSpace-hosted *Freeze Frame Project* provides access to photographs of both Arctic and Antarctic expeditions from the 19<sup>th</sup> century onwards. *Medieval*

---

<sup>5</sup> A scheme to address this problem that pairs senior and junior researchers has recently been proposed by the US-based CenterNet organization of digital Humanities Centres in conjunction with the US Consortium of Humanities Centres and Institutes (CHCI).

*Imaginations* provides an image database allowing the user to explore the interface between literature and the visual culture of medieval England. Images are described in detail and can be viewed on line.

- Projects using geospatial digital information can be considered to be a form of image-generating research and include several GIS-based initiatives, primarily in Archaeology, Classics, History and ASNC. For example, *Remote Sensing in Inaccessible Lands* provides a summary of spatial processes in prehistoric and early historic times in parts of Western and Central Asia. The value of such work lies, at least in part, in the fact that the use of digital mapping and Landsat images allows work to be undertaken 'in' areas which are currently inaccessible for security reasons. Such work means that there are now few areas of the world which are completely out of bounds. Meanwhile The *Occupational Structure of Britain 1379-1911* Project (History/Geography) is reconstructing the history of occupation of Britain from late medieval to modern periods, using digitized population census and spatial data. It is an ambitious large-scale map-based digital research project.
- Taxonomic research has a long history in Historical and Computational Linguistics. Such a tradition is reflected in the digital research now being undertaken and the web sites presented. The *Null Subjects and Structure of Parametric Theory* project (Department of Linguistics) was a five year AHRC-funded project, aim to develop a typology of linguistic correlations and a theory of parameter interaction. The *North Eastern Neo-Aramaic Database Project* provides password-protected access to a database of Aramaic dialects, and the *Structure and Linearisation in Disharmonic Word Orders* project (Department of Linguistics, and University of Newcastle) is compiling 'a database of word order facts across a large number of languages'. Finally, an older project *ProSYNTH* (An Integrated Prosodic Approach to Device-Independent, Natural-Sounding Speech Synthesis) aimed to 'construct a model of computational phonology that integrates and extends modern metrical approaches to phonetic interpretation and to apply this model to the generation of high-quality speech synthesis'. However, its web site is now viewable at the University of York (<http://www-users.york.ac.uk/~lang19>) where project partners are based and the results of research maintained.
- Sound-based initiatives are less abundant. *The Oral History Collection*, an initiative from the Centre of South Asia Studies, is digitizing sound recordings and oral history. The project is in its infancy. *Languages and Origins in Europe* is a historical linguistics project hosted by the Department of Archaeology which provides a 'Listen and Compare Online' section which accompanies what will be full online lexical databases of basic word meanings in Romance, Germanic Slavic and Celtic language families.

Digital research is also being undertaken by some University staff on a freelance or consultancy basis, i.e. some researchers and academic staff within the University are involved in digital work in association with outside companies. For example, Edward Wilson-Lee (English) has recently been working with Chadwyk-Healey adding web 2.0 features to their resource *Early English Books Online* (<http://eebo.chadwyck.com/home>), a resource which he described as 'by far the most-used digital resource in my field'; EEBO is widely used by researchers in fields such as literature and history. In addition, there are also a number of digital projects in which there is Cambridge input but of which Cambridge staff are not PIs and Cambridge is not the host. For example, The Roman Towns Project website is hosted by the British School at Rome and is directed by Simon Keay (British School at Rome/University of Southampton) and Martin Millett (University of Cambridge), but digital work on the project is not done in Cambridge.

The risk of creating 'data tombs' - digital archives of limited interest or value to other researchers - has been recognized (e.g. by the AHRC) as one factor in discontinuing funding for 'resource enhancement' projects. Most if not all of the projects surveyed, however, represent resources of long-term or wide potential use to researchers and with potential for transferable benefits to other projects in future. Some have been funded under the AHRC's discontinued 'resource enhancement' strategic theme; others are maintained by donor or sources such as the Mellon Foundation's Scholarly Communications arm. The AHRC has encouraged individual HEIs to support digital humanities projects, and to access funding via organisations such as the Joint Information Services Committee (JISC). Compared to Oxford, Cambridge has relatively few JISC supported Humanities projects; this may correlate with a weak research base for responding rapidly to funding calls in eHumanities (see

below). The aggregated research funding that Oxford has secured from JISC represents a sizeable income. Digital research income for the Humanities Schools at Cambridge over the last few years--although it allows for the employment of a significant number of RAs/EC researchers--has not reached the same level.

### 2.iii Related eHumanities Activity

In addition to specific digital research website construction some limited eHumanities research (as well as teaching and training) is being carried out across the Arts, Humanities and Social Sciences. The following represent resources and activities embedded in the University's cyberinfrastructure:

**CamTools** (<https://camtools.cam.ac.uk>) provides access to the *IRTN Virtual Research Environment*, 'a web based resource designed to facilitate and support collaboration between participants in the AHRC funded Interdisciplinary Research Training Network hosted at the Centre for Research in the Arts, Social Sciences and Humanities (CRASSH) at Cambridge University.' (<https://camtools.cam.ac.uk/site.html?siteid=bbb24062-d1bd-46ec-80a4-7743e975964a>) This two-year AHRC-funded project, now concluded, was designed to link 15 universities in an interdisciplinary training network of workshops and events. It included a recent workshop on 'The Archive in the Digital Age' aimed at graduates and early career researchers. Events and materials are archived on the IRTN website. Members of the University are encouraged to use CamTools as a 'Virtual Research Environment' (VRE), although its use is more frequent for teaching purposes, i.e. as a 'Virtual Learning Environment' (VLE). Sites are password protected which limits public access outside the University for collaborative projects (external collaborators can be added with permission); CamTools offers a means of delivering online multimedia resources, collaborative document writing tools, online document storage and sharing, discussion boards, email lists, wikis, and archives. Of some interest - or perhaps concern - is the fact that, of those people interviewed regarding digital resource use, very few have said that they regularly use CamTools for research purposes. Provision of a full VRE (next generation of Sakai) may create a larger user constituency than at present.

**The University Library (UL)** (<http://www.lib.cam.ac.uk/>) represents an important gateway to electronic resources for digital Humanities research. As well as maintaining its physical collections it has made major investments in electronic resources, acquiring commercial full-text electronic databases through purchase and subscription in response to recommendations from the academic community, e.g. *The State Papers Online*. Through national license agreements the UL also acquires access to collections such as Eighteenth Century Collections Online (ECCO) and the 17th and 18th century Burney Collection Newspapers. Coverage of full-text electronic journals continues to grow and is managed through the Journals Co-ordination Group whose membership includes academics and librarians from all five Schools.

The UL is also responsible for managing/promoting the University's institutional repository, **DSpace@cambridge** (<http://www.lib.cam.ac.uk/repository>), which has a key role in ensuring long term sustainability of digital content. The DSpace team has built important relationships with researchers, providing support for deposit of digital information. They provide advice on sustainability issues such as metadata, storage costs and file formats, of a range of content from text to data and multimedia. As funding bodies increasingly expect open access publishing of funded research, the DSpace will become essential for researchers and the University. During interviews a small group of individuals admitted to no use or even knowledge of DSpace, but they are now planning to 'try it', which shows that there is awareness of what is or should be possible in the way of digital archiving for research projects and outputs such as PhDs.

Further support to the humanities research community at Cambridge is delivered through the UL's Research Skills Programme, which provides training in the use of electronic resources, referencing, and subject based support. Meanwhile, facilitating effective access to electronic and digitized collections is a high priority of the UL. The *eresources@cambridge* web site (<http://www.lib.cam.ac.uk/electronicresources/>) provides access to e-resources on a subject specific

basis. The Library's new CrossSearch facility allows users to search simultaneously across multiple e-resources within a single or combination of subject areas. The Library is currently carrying out a tendering process for Resource Discovery Platform software, which will act as a single online point of discovery for its collections, both print and digital resources.

With the recent appointment of the Digitisation and Digital Preservation Specialist, the UL is now in a strong position to implement its digitisation strategy and look at innovative ways to build digital collections that are more sustainable and serve the needs of both the UL and humanities scholars. It is developing a state-of-the-art infrastructure to support the digitisation process. Value-added services can be built around digitized collections and the UL believes that collaboration with scholars and others will be critical to long term success.

**The University Videoconferencing Facility** (<http://www-tus.csx.cam.ac.uk/videoconf/>) is regularly used by researchers and teachers at Cambridge. However, not one of the survey or interview respondents mentioned it as a resource. Skype notwithstanding, consideration should be given to provision of videoconferencing facilities for strategically located seminar rooms and conference facilities across the University e.g. on the Sidgwick site. Discussion with Videoconferencing staff revealed that the service is used regularly both on the premises and through their rental service (e.g., FANES, Caret and Architecture have all used the service recently for research purposes; CRASSH recently made use of the mobile unit/technician for a digital conference, with unsatisfactory results). This service is seen as valuable in maintaining personal contact between individuals working on (international) multi-institutional projects, especially between project 'annual meetings', i.e. those described as 'meetings between meetings'. Less evidence has been found of the use of webcams within specific eHumanities projects. The main exception is the Cambridge Schools Classics Project.

The Philosophy Faculty **Wiki** ([https://wiki.csx.cam.ac.uk/phil/Seminars\\_and\\_Discussion\\_Groups](https://wiki.csx.cam.ac.uk/phil/Seminars_and_Discussion_Groups)) provides online details of discussion groups and seminars held in or associated with Philosophy at the University of Cambridge. It is the only one of its kind encountered during this investigation, although others must surely exist between less visible groups of researchers across the University.

### **3: REQUIREMENTS AND SUPPORT FOR eHUMANITIES RESEARCH: WHAT DO ARTS, HUMANITIES, AND SOCIAL SCIENCES RESEARCHERS WANT?**

A surprisingly high proportion of respondents (40% of those completing the original online survey) said that they would *not* be interested in learning more about the benefits of using digital resources – something which should be of some concern, indicating as it does that there are many people who remain to be convinced that the use of 'sophisticated digital resources' is a good idea. However, there is a pattern amongst these 'negative' respondents: 30% of this group work in units or projects which are already digitally active and therefore respondents felt that they would learn little more of interest or relevance to their research. Interestingly the largest group of those who said 'no' (50%) work in historical subjects – Classics, History and Anglo-Saxon, Norse & Celtic. Even those individuals who answered 'no' when asked, on an individual basis, if they would be interested in learning more about the benefits of using digital resources admitted that their teaching and research might be improved by such use, especially since it is increasingly recognised that (large) projects funded by research councils demand web out-put, such as project-specific websites. The survey and 'mapping exercise' therefore tried to discover what respondents thought they would find most useful, on the assumption that resources/facilities/meetings would be provided for free. It was recognised that (additional) resources and support would need to be sought in the near future in relation to such funded projects, actual or potential.

The survey and interviews identified a number of requirements, although in most cases lack of time and too many other commitments were cited as major reasons for failing to get involved in what is a new field and approach/methodology.

In addition to 'more time' respondents selected the following as their major requirements:

- Searchable online access to subject-based datasets (24.7%)
- Training on the application of digital resources for both teaching and research (18.5%). Something mentioned as a possibility for the future was additional training in computing for the Humanities. The idea emerged of a course run along similar lines to the current *Certificate in Humanities Computing for Languages* operating in Modern and Medieval Languages (<http://www.mml.cam.ac.uk/call/cert/>). Staff at the Computing Service have expressed initial interest in the idea. Expansion of the CHUCOL to include non-MML humanities researchers should be investigated.
- Repositories for digital resources (17.3%) – digital archives. There was a disturbing lack of awareness and use of DSpace.
- Expert information on resource availability and usefulness (14.8%)
- A recognised community of *senior academic staff* active in eHumanities research, operating in a leadership role. This group also needs to be linked in to academics in different Faculties who can make researchers aware of projects ongoing in the different areas and their requirements – allowing for cross-fertilisation of projects and shared expertise. It was felt that these people should be professors with a good overview of what is going on in their department, and probably elsewhere within the University. This would involve a considerable culture change within the community and speaks to the current absence of senior academic leadership in digital humanities.
- Access to a shared pool of digital experts in the academic community, skilled in particular computing tools and available for advice on particular projects and uses, along with an easy way of finding out who and where these people are. A central database/website of people willing to offer and share their expertise would be of obvious value for those undertaking new research projects. Such a database would also enhance interdisciplinary training and skill transfer. A recurrent problem identified during discussions was a lack of technical expertise to set up an XML-fuelled searchable and browsable website driven by output from complex relational database. These may be project-specific problems but the key concern does appear to be 'lack of technical expertise' even amongst Computer Officers. Such a database would also assist RSD in swiftly identifying potential respondents to digital funding calls.
- Similarly of value, suggested by Michael Scott (Classics, Darwin College: [www.michaelscott.com](http://www.michaelscott.com)) would be the ability to cross-source projects where students in one discipline could take part in projects in another faculty (e.g. is it possible to find 3D visualisation students willing to undertake as part of their course a particular project, which could then be used in teaching and research in Classics?). Such a scheme is currently in development: UROP will offer positions to undergraduate student currently studying at any Department (<http://www.eng.cam.ac.uk/teaching/urops/projects.html>). In order to further eHumanities it is essential that Arts, Humanities and Social Science disciplines become fully involved and integrated into the scheme.
- On a detailed level, i.e. relating to individual or departmental digital requirements, specific items were mentioned as needed or wanted, e.g. 3D visualisation programs to enable the production of more 'real world' images of the ancient world. Geo-spatial imaging and uses of GSI are increasingly widespread among researchers in fields ranging from history to ancient history and archaeology, but little or no formal training currently exists for graduate students.
- Among those who said that they would be interested in learning more about the use of digital resources, the most frequently requested items were published guidelines and demonstrations. It was stated that the latter should in many cases be made available on a one-to-one basis rather than as groups tuition/instruction. This may indicate a need for dedicated support staff on-call for individual researchers and projects to get them started.
- One of the most frequently cited requirements was a need for more time to be made available by computer staff, at a time convenient to the researchers themselves. The lack of time (on the part of researchers themselves, and others) was the most frequently offered explanation for lack of involvement in digital research. However, motivation can overcome lack of time, as all

researchers know: digital humanities research may be something individual researchers become involved in only when a particular project sparks their interest or demands new tools.

#### **4.i. THE FUTURE OF eHUMANITIES RESEARCH IN CAMBRIDGE**

As a minimum, eHumanities requires a link that enables researchers in different Faculties within the University to make others aware of (1) ongoing projects in different departments/faculties and (2) their needs – allowing for cross-fertilisation of projects and expertise. This is particularly true as collaborative research becomes more important, both intra- and inter-institutionally. Key to this would be the involvement of professorial and equivalent staff, i.e. those with a good overview of what is going on in their department. The system cannot afford to depend on graduate students and early-career post-docs who are likely to move on to other ventures or projects, although it is no doubt some of these very people who will determine the longer-term future of the discipline and the directions of digital humanities research.

A number of specific points regarding the future of eHumanities in Cambridge have emerged during this initiative:

- Some support (verbal at least) exists for a CRASSH-Caret axis to work alongside a Caret/UL link and for provision of teaching/training for early career researchers
- Being part of the Mellon-funded 'Project Bamboo' (<http://projectbamboo.org>) exploring the development of shared technology services was felt to 'probably be a good idea', although there was not much awareness of and hence not much enthusiasm for the project beyond the participants themselves. Cambridge (along with Oxford University, actively supported by its Humanities Division, and the Open University) has been represented by CRASSH, Caret, and the UL.
- Energy for technology, access and proliferation would need to be channelled into critical methodology, i.e. methodology needs to be part of (any) development including teaching
- Available resources could be better used, e.g. Google Earth and digital Humanities databases available online and through the UL
- A need for some sort of (optional) formal training available in Humanities computing, similar to CHUCOL in MML was expressed by digital researchers and/or those responsible for graduate training
- Among Early Career Researcher groups, the role of digital research is still felt to be undervalued: digital research outputs do not yet carry the same weight as books and top-ranking journal articles in the race for tenure and job security. This is not a Cambridge-specific problem, but it is something that needs to be addressed.
- Where training facilities are concerned, College, as opposed to University, staff are not always able to access training or facilities, e.g. DSpace. If one of the aims is to ensure co-operation and integration of the larger institution (all of Cambridge University) access needs to be University-wide.

#### **4.ii: THE ROLE OF THE SCHOOLS, CRASSH AND THE UNIVERSITY IN PROVIDING SUPPORT AND RESOURCES FOR THE DEVELOPMENT OF eHUMANITIES RESEARCH**

Support for digital Humanities research from within the University should come from the following potential sources:

- At School level there is the opportunity for in-house collaboration, sharing of facilities and expertise. Although this is also true at a higher level, one issue which emerged from interviews was the sense that Humanities researchers/research would not benefit greatly from quantitative Social Science methodology, i.e. that there is less need for the data-mining

activities associated with the Social Sciences. Whether this is true is unclear since Historians and Linguists (for instance) are well-used to such activities.

- CRASSH provides an inter-disciplinary Centre through which digital Humanities/eHumanities research could be steered or encouraged. However, such an approach would demand financial investment in, as a minimum, digital technology and serious (office) space for digital research. If a Centre for Digital Humanities on a par with the Oxford e-Research Centre (<http://www.oerc.ox.ac.uk>) were to be established, CRASSH would be a key contender as a host during its early stages of development. The new CRASSH location on the Sidgwick site would make it a potential hub for eHumanities collaborations, teaching and research if space were to be provided.
- An alternative or complementary role for CRASSH would be as a centre hosting regular eHumanities fora, workshops, seminar groups, speakers, and events. Further IRTN (Interdisciplinary Research Training Network) workshops should be held, offering as they do a form of 'transferable skills' for next-generation humanities researchers; however, these could only be run if funding were provided from Roberts for their organisation and the employment of digital Humanities staff (provided by Caret, the UL, the Computing Service or others in digital Humanities research) to undertake such training.
- The Cambridge University Computing Service should be in a position to offer assistance in the establishment of eHumanities in Cambridge. Once again, however, practical support will depend on resources (financial and other) made available specifically for Humanities computing. In particular, the possibility of a Certificate in Humanities Computing (a suggestion made by a small number of interviewees and supported by a number of others) was not dismissed by Computing Service staff. Such a certificate could be made available to students, both undergraduate and graduate— especially in the departments/fields where the subject does not already form a significant part of the course, bearing in mind that graduate training often requires a 'bespoke' disciplinary aspect for uptake by students. Such a certificate could mirror that on offer in Modern and Medieval Languages (Certificate in Humanities Computing for Languages - <http://www.mml.cam.ac.uk/call/cert>).
- Funding to establish and maintain an easily accessible website listing resources, projects and expertise would make it possible to identify partners or experts efficiently when needed, and to link new projects to existing projects, as well as making it possible to identify researchers quickly to respond to funding calls. This resource would represent a valuable form of support to digital Humanities researchers and would not be hard to implement through RSD if funds were provided for a short period of intensive work.

## 5. HOW DOES CAMBRIDGE COMPARE TO OXFORD, KING'S COLLEGE LONDON & OTHER COMPARABLE INSTITUTIONS?

Based on discussion with workshop attendees from other institutions, and on individual contacts, it appears that the Universities of Oxford, Sheffield and King's College London are well ahead of Cambridge at the moment in terms of the involvement of e-Science with arts and humanities, so creating an 'e-research' focus. Cambridge has the potential to do more in this respect through its own eScience centre (<http://www.escience.cam.ac.uk/index.html>), but as yet the bridge between core eScience subjects and the Arts, Humanities and Social Sciences has not been established (despite some notable initiatives).

A brief overview of major current initiatives elsewhere in the UK follows:

- **The Oxford e-Research Centre** (<http://www.oerc.ox.ac.uk/>) appears to be well established. Oxford also has a Digital Research Institute (<http://www.oii.ox.ac.uk/>), a graduate-degree-offering and academic and research department 'for the study of the societal implications of the internet'. The webpage of 'Virtual Research Environment Projects at Oxford University' (<http://www.vre.ox.ac.uk/>) includes a JISC funded project for developing a VRE for the

Study of Documents and Manuscripts that builds on the previous JISC-funded BVREH project in Classics (<http://bvreh.Humanities.ox.ac.uk/VRE-SDM>). Other digital Humanities projects are located within and supported by the Oxford University Computing Service (<http://www.oucs.ox.ac.uk/>). Oxford has committed funding to building a central searchable e-Research Centre website aimed at locating expertise, advertising existing projects and supporting new ones, and is currently employing the former Director of the AHRC's digital strategic initiative for one day a week to develop its e-Humanities Centre. In turn, he is establishing a network of 'Expert Centres' to replace the former 'Methods Network' funded by the AHRC.

- **The University of Sheffield Humanities Research Institute** (<http://www.shef.ac.uk/hri/index.html>) provides a 'home to cutting-edge research projects, many using innovative digital technologies and supported by HRI Digital'. It is described as 'A publisher of prestige Humanities research resources and tools via HRI Online'. HRI Online (<http://www.shef.ac.uk/hri/hrionline>) is an online publishing service for the innovative, digital outputs of Arts and Humanities research projects. HRI Digital is the technology research and development services of the HRI. Its mission is to support the innovative use of technology within Arts and Humanities research as both a method of inquiry and a means of dissemination (<http://www.shef.ac.uk/hri/digital.html>)
- **King's College London Centre for e-Research** (<http://www.kcl.ac.uk/iss/cerch/>) is a cross-disciplinary initiative, contributing to KCL-wide e-research and teaching, and is currently developing a Virtual Research Environment for King's. It comprises a research centre for e-infrastructures, e-research methods and digital informatics, including the application of e-science to research. It offers postgraduate training and hosts national and international projects and services, including e-science support, ICT Guides, arts-Humanities.net and the EU DARIAH project. It also functions as a provider of consultancy, training and services for data creation, curation and preservation. It housed the AHRC-funded Methods Network (<http://www.methodsnetwork.ac.uk/about/partners.html>).
- **Open University Knowledge Media Institute** (<http://kmi.open.ac.uk/>) was set up in 1995 to address a convergence of areas: Cognitive and Learning Sciences, Artificial Intelligence and Semantic Technologies, and Multimedia. Research in the Institute is aligned with a number of broad strategic threads such as Future Internet, Knowledge Management, Multimedia & Information Systems, Narrative Hypermedia, New Media Systems and Social Software.
- **Imperial College Internet Centre (London)** (<http://www.internetcentre.imperial.ac.uk/>) has a dedicated Arts, Humanities and Cultural Heritage Co-ordinator, who also works on behalf of the London eScience Centre, thereby promoting arts and humanities across London-based eScience resources.

## 6. WHAT TO DO NEXT, OR QUESTIONS, PROBLEMS AND WAYS FORWARD FOR THE FUTURE

### Research Grant Potential: How is Cambridge placed to respond to research funding calls in eHumanities?

Provision for use of digital resources in the Humanities, Arts and Social Sciences is an item which is already included in many grant applications. However, in terms of future and potential research funding, although the AHRC has withdrawn funding specifically for technology-based projects (the *Resource Enhancement Scheme*) it now looks for good evidence that individual HEIs can and will provide appropriate and enduring support for projects that incorporate a technical component. The further development of eHumanities in Cambridge would help to generate further research funding from such sources as the AHRC. Furthermore, with ever-increasing funding available for Research & Development in Information and Communication Technologies across all disciplines, potential financial rewards from FP7 should be considerable. As the Cordis website states (<http://cordis.europa.eu/fp7/ict>) 'The EU Member States have earmarked a total of € 9.1 billion for funding ICT over the duration of FP7; making it the largest research theme in the Cooperation programme, which is itself the largest specific programme of FP7 (with 64% of the total budget).'

Responding to eHumanities funding calls in Cambridge currently appears to depend on the co-operation and work of members of RSD and on research capacity at Caret. Greater awareness of a community of 'digital researchers' would probably improve the rate of application for funds and, by definition, the number of successes. Lack of investment in a research base seriously impedes the Arts/Humanities & Humanities/Social Science Schools in the ever-more fierce competition for research funding.

Should there be a standing committee on eHumanities research?

There was little active support for a standing committee or working group on eHumanities research at inter-Faculty or School/Cross-School level, perhaps a result of a fear of involvement and lack of time. When the subject was raised it was felt that any committee would need to avoid being prescriptive. However the existence of such a group would probably ensure that a broad awareness of digital research was maintained and would help to establish both training for researchers and greater prestige for digital Humanities research.

What currently impedes eHumanities activity?

Although the review discovers a growing digital Humanities community within Cambridge, three main reasons can be identified for its slow growth and low profile. If these can be overcome, the community will certainly grow further –many researchers acknowledge the importance of such work.

The reasons given for non-involvement include:

- Lack of time was a frequently cited reason for a failure to exploit fully available digital resources, whether this be the time of the person concerned (PI, RA, UTO, CTO) or the Computer Officer whose work load is too heavy. An 'off the record' comment frequently heard in the course of interviews was: 'when would I find the time to do this as well as everything else?'
- Although facilities are available through the Computer Service and Caret, it is frequently felt that they should be available nearer to hand, immediately, as and when required. Lack of money was often mentioned as a reason for not being able to undertake digital research – whether for equipment, software or personnel. However, there is now a growing awareness that digital resources of all types should be included in costings for research grants.
- A surprising degree of ignorance still exists regarding what can be done with digital tools. This situation might be improved if research-active staff were actively encouraged to attend workshops demonstrating what is 'doable' in areas relevant to their research. Although a degree of self-selection is inevitable, publicity and research results may produce a larger take-up as time passes.

To counteract these problems, every effort must be made to

- join up people who are already using digital resources, creating new tools and seeking new tools for their research (and teaching);
- provide opportunities at all levels for fora, discussion, training and hands-on or supported learning for digital researchers;
- raise the University's game in this area and thereby help to set the agenda--or at the very least become better able to respond to an increasingly digital agenda in the Humanities;
- transfer expertise from the sciences (e.g. computer science and eScience) to the Humanities, where tools and techniques developed in the sciences might be repurposed.

One immediate and practical first step would be a website. A University of Cambridge digital Humanities website would provide a source of information for researchers with links to projects, people and archives of work carried out in Cambridge, as well as digital resources elsewhere. This would not only serve our own researchers but possibly also those at other institutions. Such a website would need to be more than a series of lists and links, not only demonstrating the wealth of research activity at Cambridge, but establishing the University's profile in this area as the digital world begins to take over from traditional approaches. Such a website would need a controlled vocabulary to allow

for searching but would probably take a relatively short time for a qualified person to design and implement.

#### Long term investment and a strategy for eHumanities teaching and research.

Fuller representation of digital Humanities research at Cambridge would need to develop in tandem with both training and building a deeper base of research capacity in eHumanities at senior as well as junior level. Cambridge has an opportunity to participate in shaping the next generation toolset for the Humanities and to provide greater understanding of what people need to facilitate their research, and what new research would be possible using existing tools or with new tools as they become available. To overcome the problems outlined above, a concerted strategy would be needed to involve the University Library, the Computing Service and the two Schools along with individual researchers. It is hard to see this happening without leadership from above in designing and implementing a coherent strategy.

#### Developing one or more consortia for the sharing of eHumanities expertise and tools.

*Project Bamboo.org* represents a Mellon-funded international consortia aiming to link both expertise and the sharing or repurposing of tools in an eHumanities community defined by partnerships at different levels depending on the degree of resources offered and provided. An alternative local way forward already being discussed (initially with Oxford) might consist of a consortium of expertise linking Cambridge (CRASSH), Oxford, the OU, KCL, and Sheffield as 'centres of experts' able to engage in the sharing of expertise for training and developing eHumanities research. In the US, CRASSH has also participated in discussions with CentreNet and the CHCI to apply to foundations for schemes pairing 'traditional' and 'digital' humanities centres. Such consortia could provide greater access to funding (e.g. Mellon or JISC) in the future.

## **7. CONCLUSIONS**

In summary, a significant amount of digital archival work appears to be going on amongst Arts, Humanities and Social Science researchers and related staff at Cambridge. Much of this work is undertaken by researchers who view themselves as research facilitators, i.e. as compiling and archiving information so that they and others, in their respective research capacities, can then use the information for research projects – in the UK or anywhere else in the world, depending on the degree of 'open' access to the resource. This description leaves out the many ingenious re-purposings, recombinations, adaptations and innovations that constitute the rapidly moving field of software tool research as it attempts to solve new problems. In its focus on individual projects, it draws attention, by implication, to the lack of an overall or 'joined up' institutional strategy.

One interesting observation made early on in the investigation is the fact that the university community is sharply divided between those who do and those who don't, for whatever reason, use digital resources. Some of those who already do displayed some (polite) hostility to the whole endeavour. To quote from one Computer Officer "The problem it seems to me is that people are missing the real need in the University, which is for Humanities Computing support. Those of us under forty are quite able to get a grip on the resources that are out there and available; but Cambridge shouldn't be a place which only uses resources and doesn't add its own.' Although these are distinct problems, the need for support in using existing tools and resources, and investment in developing genuinely new ones (R&D), are, to some extent, inseparable.

Also noteworthy is that the level of digital sophistication in today's students may not correlate with other skills: 'when you get further down the line, to current students, they don't need teaching about electronic resources (except perhaps their limitations) so much as they need help to use books - people aren't necessarily used to using dictionaries any more. Digitisation of resources continues apace, but ... students are also going to have to cope with non-digital resources for a long time yet'. The implication is that traditional bibliographical research skills need to be taught alongside new skills:

even the most adept Facebook users may still not be able to employ a dictionary – let alone a sophisticated text-editing tool. Particularly for graduate students, provision of digital Humanities training alongside traditional skills remains crucial and (as with other forms of graduate training) is likely to need a ‘bespoke’ or discipline-specific element for take-up to be effective.

As the information collected shows, the problem is not so much the scarcity of digital Humanities research expertise, as the disaggregation typical of the University of Cambridge’s intricate and devolved structure. The very autonomy that creates space for innovation and entrepreneurial activity may also limit its impact across the institution. Initially at least, it may simply be a case of pulling these projects and resources together as an apparently coherent register of information and people. All that would be needed is the resourcing of a sophisticated and well maintained eHumanities website – along with someone to maintain it – and especially an entry on the main university website, with links to or from RSD, CRASSH, the UL, etc. However (see above) such a website has many other uses, not least when it comes to identifying research expertise and potential collaborations and providing support for new projects.

However, it is crucial that this relatively focused effort should not lose sight of the larger objective, which is to build a solid base of research capacity so that Cambridge is well positioned to move ahead in the new digital Humanities alongside its peers. Such a coherent strategy recognizes that research funding is increasingly necessary to the University, but also that an innovative research environment requires a degree of support and stimulation where it may seem to be lagging behind. The problematic divide between traditional humanities researchers and digital Humanities researchers is not new and not easily solved. However, it is likely to be an increasingly convergent research world in the future. Involvement in efforts to create a next generation of both tools and researchers remains the overarching concern of this report.

One of the aims of this initiative has also been to ensure that the University is in a position to make full use of all the funding opportunities available to academic scholars and providers of research infrastructure – both in the UK (JISC) and Europe, where significant amounts of money are expected to be invested in eHumanities research over the next ten years. The existence of a regularly-communicating group of scholars and support staff who are interested and active in digital Humanities research, who know each other and are able to work together, would put the University of Cambridge in a better position to react swiftly to grants calls. These calls often have deadlines which are only a few weeks, at most – months – away and the digital Humanities ‘community’ needs to be ready to put in a bid at short notice. The system cannot depend on generating a community each time a call is published. This is not a problem unique to eHumanities; but the field is an especially fast moving one and speed and preparedness are of the essence.

A further consideration that arises from the increase in digital Humanities research projects is that collaborative research, teaching, online meetings and distance seminars will become increasingly common (especially as the environmental and other costs of travel become more critical). For this dedicated space is needed. Not only the digital Humanities Centres but traditional Humanities Research Centres are now including digital research in their portfolios (e.g. the Humanities Centres at Stanford and Toronto), and in some cases providing a physical environment (or ‘hub’) for digital Humanities researchers. Oxford plans to include a space for Humanities computing in its projected Humanities Institute. The British Library’s plans for a digital research centre (opening in 2014) points to a future where digital and traditional modes of research will increasingly coexist. It may be shortsighted to omit a properly equipped space for digital Humanities teaching and research in the on the Sidgwick Site, for instance in the new ‘Centre of Centres’.

As a result of information gathered from the survey it is hoped that the University of Cambridge shall be better able to fulfil the central roles of a leading teaching and research institution in the field of digital Humanities research; in particular by developing a strategy to

- join up researchers who are already using digital resources, creating new tools and seeking new tools for their research (and teaching);
- ensure that a next generation of researchers are trained and capable of taking on the challenges of Humanities research (and teaching) during the coming decade;
- raise the University's game in digital Humanities so as both to make better use of existing resources and to help to set the agenda for innovative new research;
- provide an appropriate level of support and infrastructure for funded research and for developing research capacity in the digital Humanities;
- transfer expertise from the sciences (e.g. computer science and eScience) to the arts, Humanities and social sciences, where tools and techniques developed in the sciences might be repurposed;
- develop tools and define protocols for their usage as well as conducting an informed assessment of what digital resources in the Humanities have accomplished or might accomplish in future;
- maintain standards of critical thinking in the field of digital Humanities along with the expertise to recognize high quality digital Humanities research when it comes to recruitment and promotion.

## Appendix I

Brief details of digital research projects and activities undertaken by Cambridge University research and teaching staff in the Arts, Humanities and Social Sciences

The **History Faculty Virtual Classroom** includes ‘a variety of sample exercises and lectures, and information’ (<http://www.historycambridge.com/default.asp?contentID=604>). This is a Virtual Teaching Environment rather than a VRE but it shows that potential for development is present within this Faculty.

### **The Digital Studio for Research in Design, Visualisation and Communication**

In 1998/2000 the Digital Studio was set up by François Penz (University Reader in Architecture and the Moving Image), with Maureen Thomas (then a Head Tutor at the National Film & Television School, UK) for practice-led research in design, visualisation, expression and communication, focusing on the techniques, methodologies and potentialities of digital media. The Digital Studio brings together theoretical and practical study focusing on the narrative organisation of space and the expressive use of digital media as an aid to design and communications in architectural and city related issues. CadLab (Computer Aided Design) joined the DIGIS in 2002, specialising in 3D Modelling and Real Time Environments. ‘Testimonies of Studies’ in the form of models and other results of practice-led design-work have become one of the hallmarks of the Department of Architecture’s emphasis on studio-based teaching, learning and research. The *Digital Studio* brings this approach into the ICT era, with a focus on spatiality and narrativity. Its field of study is interdisciplinary and at the convergence of four fields:

- *Narrative Organisation Of Space*  
<http://www.arct.cam.ac.uk/ArchIntranet/group.aspx?rid=222203&p=1&ix=64&pid=17&prcid=5&ppid=1>
- *Navigable Virtual Architecture*  
<http://www.arct.cam.ac.uk/ArchIntranet/group.aspx?rid=222203&p=1&ix=65&pid=17&prcid=5&ppid=1>
- *Design and Communications for Hospital Design*  
<http://www.arct.cam.ac.uk/ArchIntranet/group.aspx?rid=222203&p=1&ix=66&pid=17&prcid=5&ppid=1>
- *Non-Linear Spatial Narrative Forms*  
<http://www.arct.cam.ac.uk/ArchIntranet/group.aspx?rid=222203&p=1&ix=67&pid=17&prcid=5&ppid=1>

### **The Occupational Structure of Britain 1379-1911**

<http://www.geog.cam.ac.uk/research/projects/occupations/>

A major digital project directed by Dr Leigh Shaw-Taylor, Deputy Director of the Cambridge Group for the History of Population and Social Structure (Geography), and lecturer in the Faculty of History; funded by the ESRC, Leverhulme Trust, British Academy and Newton Trust. The (online) research reconstructs the evolution of the occupational structure of Britain from Late Medieval to early 20<sup>th</sup> century periods. Compilation of a wide range of digital datasets, digitisation of maps and systematic GIS work plotting populations, census data, transport infrastructure etc. have resulted in a large series of maps, some viewable from <http://www.geog.cam.ac.uk/research/projects/occupations/>. The work has involved compilation and maintenance of MS Access databases, SQL programming and use of ArcGIS for mapping and analysis. Computer hard- and software is supported from grants (large and small) totalling £1.8M over 6-7 years so far. The project is probably one of the most sophisticated and advanced eHumanities projects viewed to date. It is a team project (9 people, full- and part-time; plus a large amount of student labour, the total cost of which is currently reckoned to be about £150k so far) with a growing public face which results in frequent requests for information from the general public, in the UK and abroad. Lack of administrative as opposed to technical support has meant that some analysis and research has been completed at a slower rate than had been expected. The main problem encountered in running the project is one of ‘culture’: the amount of time spent on administrative duties means that traditional publication rates are slow; research based on using and constructing digital resources is felt not to be as well regarded as more traditional work, despite the fact that the results of the research project will represent a huge resource for anyone working in economic and cultural/social history.

**The Casebooks Project: Simon Forman's and Richard Napier's Astrological Casebooks, 1596-1634:** Dr Lauren Kassell (Department of History & Philosophy of Science, <http://www.hps.cam.ac.uk>) is currently piloting a major electronic project (*The Casebooks Project: Simon Forman's and Richard Napier's Astrological Casebooks*,

1596-1634), funded by the Wellcome Trust to prepare an on-line edition, database and image archive of a set of astrological casebooks dating from 1596-1634. These contain approximately 50,000 records in difficult handwriting and astrological notation. The richness of the material is matched only by its current inaccessibility. The Casebooks Project will produce an electronic edition and database of the primary attributes in the full run of casebooks, containing approximately one million words of text plus an additional 500K of editorial matter. It will also produce a digital archive of images, linked to the edition and database. This resource will be mounted on an open-access website.

The **Cambridge Schools Classics Project** (<http://www.cambridgescp.com/>) remains one of the classics Faculty's major projects. This is an invaluable digital outreach project, unparalleled elsewhere. CSCP is part of the University of Cambridge Faculties of Classics and Education, but owing to its growth and success, and the restricted space in the faculties of Education and Classics, the project is housed in the Music Faculty.

**The Roman Towns Project** ([http://www.bsr.ac.uk/BSR/sub\\_arch/extra/BSR\\_Tiber\\_Roman01.htm](http://www.bsr.ac.uk/BSR/sub_arch/extra/BSR_Tiber_Roman01.htm)) is a fieldwork, survey and GIS based project focusing on the the Tiber River Valley, stretching from Portus at the mouth of the Tiber, to the middle reaches of the river around Orte. It aims to provide a comparative study of Roman urban centres and nucleated sites. Earlier, similar research in Italica, southern Spain, has shown that integration of systematic surface survey, geophysics and GIS produce good results.

**The Greek Colonization and the Archaeology of European Development Project** is Leverhulme Trust funded ([http://www.classics.cam.ac.uk/faculty/research\\_groups\\_and\\_societies/gced](http://www.classics.cam.ac.uk/faculty/research_groups_and_societies/gced)). The aim of the project is to explore variation in the patterns of interactions between Greek colonists and indigenous societies through a series of case studies. This is largely a GIS project.

**The Roman Burials Project** ([http://www.classics.cam.ac.uk/museum/archaeological\\_research/burials](http://www.classics.cam.ac.uk/museum/archaeological_research/burials)) is a project in funerary archaeology. The web site emphasises that it is work in progress: 'The results of the project will be disseminated through a number of workshops, this website, a field school and selected publications'.

**The Greek Lexicon Project** will see digital as well as paper publication of an 'Ancient Greek-English Lexicon of intermediate size, suitable for students'. It will be published by CUP and as part of the Perseus Digital Library (<http://www.perseus.tufts.edu/hopper/>) which unfortunately is not part of CUP.

#### **Parker Library of the Web**

<http://parkerweb.stanford.edu/parker/actions/page.do;jsessionid=E2C46E72B522A870349C6299427C2C74?forward=home> Professor John Hatcher ([mjh1001@cam.ac.uk](mailto:mjh1001@cam.ac.uk)) is the Cambridge director of 'Parker Library on the Web', a USD10m project with Stanford using Mellon funds. Corpus Christi College and the Stanford University Libraries run interactive, web-based workspace designed to support use and study of the manuscripts in the historic Parker Library at Corpus Christi College, Cambridge. Parker on the Web consists of information pages, high resolution images of all the pages in Parker Library manuscripts, descriptive metadata that enable access to the manuscripts and their contents, and bibliographic references to related scholarship.

**Scriptorium: Medieval and Early Modern Manuscripts Online Project** (<http://scriptorium.english.cam.ac.uk>) is an AHRC Resource Enhancement Grant-funded project based in the English Faculty (c/o: Dr Raphael Lyne). It consists of 'a digital archive of manuscript miscellanies and commonplace books from c. 1450-1720, including research and teaching resources for late medieval and early modern manuscript studies.' The project includes (1) **Manuscripts** ('Browseable and searchable digital facsimiles of manuscript miscellanies and commonplace books from c. 1450-1720, with accompanying descriptions, transcriptions and bibliographies'), (2) **handwriting** ('An interactive teaching resource on the handwriting of the late medieval and early modern periods, for those new to the study of medieval and early modern palaeography, and also for more experienced users'), and (3) **resources** ('A selection of interactive, descriptive and downloadable resources on manuscript studies, such as essays, bibliographies, databases and links to other resources'). Project data storage will use DSpace. The project staff have found Caret to be very helpful: the Caret team with their technology expertise has been described as 'great'.

**Medieval Imaginations** (<http://med-imag.english.cam.ac.uk>) can be viewed via an impressive web site which provides a database of images exploring the interface between the literature and visual culture of medieval England. Images are described in detail and can be viewed on line, with a zoom facility available for detail.

The **Shahnama Project** (<http://www.ames.cam.ac.uk/shah/>) run by Professor Charles Melville ([cpm1000@cam.ac.uk](mailto:cpm1000@cam.ac.uk)) in the Faculty of Asian and Middle Eastern Studies is one of the more impressive endeavours in the School of Arts and Humanities reviewed so far. It involves a powerful online resource, with an archive database, aiming to stimulate research and interest in Persian cultural history, originally funded by the AHRC Resource Enhancement Scheme. Much of the MS Access database of scanned illustrations from the Shahnama (the mediaeval Persian Book of the Kings) can be viewed via Caret: <http://shahnama.caret.cam.ac.uk/shahnama/faces/user/index> where full details of the database construction, compilation, and management can be found.

**The North Eastern Neo-Aramaic Database Project** (<http://nena.ames.cam.ac.uk/index-new.php>). The website for this project will give access to an electronic database relating to the North Eastern Neo-Aramaic dialects. A team of 6 is working on this AHRC-funded project, with Professor Geoffrey Kahn as PI. There are three RAs and two Research Developers. In order to use the website, user name and password are currently required.

**A Historical Corpus of Welsh Language 1500-1850:** The use of 'digital resources' has a longer tradition in (historical) linguistics and related subjects than in many of the Arts/Humanities and Social Sciences. Computational linguistics has led the way and continues to feature along with corpus linguistics. In the Department of Linguistics Dr David Willis's work resulting in an online corpus of welsh (<http://people.pwf.cam.ac.uk/dwew2/hcwl/menu.htm>) is a notable example. The influence of this project can be seen on other subjects and research both within the University and further afield (<http://www.arch.cam.ac.uk/~pah1003/loe/Eng/Home/HomeHome.htm>).

### **Languages and Origins in Europe**

(<http://www.arch.cam.ac.uk/~pah1003/loe/Eng/Home/HomeHome.htm>) is a Leverhulme Trust funded project looking at the four main language families of Europe – Romance, Germanic, Slavic and Celtic – and the early relationships between their respective ancestor languages. The full databases will be published in electronic form on the project website, and the lexical database of basic word-meanings will be available for download. Some publications are available for download. The 'Listen and Compare Online' section is also available: <http://www.arch.cam.ac.uk/~pah1003/loe/Eng/Home/HomeListenOnline.htm>

**Darwin Online** (<http://darwin-online.org.uk/>): The complete work of Charles Darwin online, including published writings and unpublished papers.; originally funded by the AHRC (PIs Professors Secord and Browne; directed by Dr John van Wyhe). This project, housed at CRASSH and now funded by a donor, has received world-wide attention and attracted a record number of international users.

**Darwin Correspondence Project.** The Darwin Correspondence Project (<http://www.darwinproject.ac.uk/>) is making available, in print and online, complete transcripts of more than 15,000 known surviving letters written to and by Charles Darwin. Of these approximately 5,500 are so far available online, free of charge. It represents a growing digital archive of substantial scholarly significance which will eventually include all of Darwin's correspondence and provide a benchmark resource for Darwin researchers. Transcripts are supported by comprehensive notes and other contextual material, including brief biographies of all persons mentioned, cross-references to Darwin's published writings and unpublished notes, and identifications of places and organisms. In addition to providing a benchmark resource for Darwin researchers, the material is of considerable value to education at all levels, and to a general audience. The Project is managed jointly by Cambridge University and the American Council of Learned Societies and directed by Professor James A. Secord of the History and Philosophy of Science Department, Cambridge. The Cambridge staff, based in the University Library, currently comprises four full-time researchers, and three full-time research assistants. Past and present funders include the British Academy, the British Ecological Society, the Andrew W. Mellon Foundation, the National Endowment for the Humanities, the National Science Foundation, the Natural Environment Research Council, the Isaac Newton Trust, the Royal Society, the John Templeton Foundation, the Wellcome Trust, and a number of private foundations and individuals.

The **Digital Himalaya Project** ([www.digitalhimalaya.org](http://www.digitalhimalaya.org)) was established in December 2000 in the Department of Social Anthropology in Cambridge with the aim of preserving in a digital medium anthropological materials from the Himalayan region that were fast degenerating in their current form, including film, photographs, audio recordings, field notes, maps and rare publications; making these resources available over the WWW so that they might be used by researchers and students and as DVDs for the descendants of the people from whom the materials were collected. Today Digital Himalaya has become a collaborative digital publishing environment which brings a new collection online every month. The website

has grown from being a static homepage with occasional updates to a dynamic content delivery platform for over 20GB of archived data. It has moved from being almost exclusively used by members of Western universities to providing a range of services to a global public, with a particularly strong user base in Asia.

**Digitization of History Project** (<http://www-histecon.kings.cam.ac.uk/research/digitization/index.html>) began in May 2007. It is co-ordinated by graduate students, faculty and visiting faculty in Cambridge, and is supported by the Centre for History and Economics at Harvard University and at King's College Cambridge. It seeks to encourage discussion of the consequences of new uses of information for historians, and to explore new ways of increasing access to archives and other sources of information. The project focuses on Information exchange, debate and collaboration among computer scientists, librarians and archivists and historians, addressing address the potential and serious challenges and inequalities of digitisation. It asks 'Who digitizes what, and why?', 'How can we democratize access while ensuring that projects have adequate funding for maintenance?' and 'How will digitization affect the practice of history, and the 'social universe' of historians, archivists and librarians?'

**The AHRC Greek Bible in Byzantine Judaism Project** (c/o Professor Nicholas de Lange) (<http://www.divinity.cam.ac.uk/greekbible/index.html>) is based in Divinity. Three-year AHRC funded project (2006-9) gathering together evidence for the use of Greek Bible translations by Jews in the Middle Ages. The texts will be edited and published both as a digital corpus and in book form. Project website described 'coming soon': <http://gbbj.org/index.html>

**Investigating Atheism** (<http://www.investigatingatheism.info/>) is designed to stimulate interest, thought and debate on the subject of atheism. The website has been put together by academics and researchers at the University of Cambridge Faculty of Divinity and at Oxford University.

The **Cambridge Interfaith Programme** (<http://www.cip.divinity.cam.ac.uk/>) is in the process of developing a new Scriptural Reasoning website (<http://www.scripturalreasoning.org>).

The **Oral History Collection** (<http://www.s-asian.cam.ac.uk/>) is a developing digital initiative from the Centre of South Asian Studies. The Centre has a large collection of oral history and other sound recordings, which is in the process of being digitized with the help of an AHRC grant. The website is in its infancy.

The **Earls Colne** website (<http://linux02.lib.cam.ac.uk/earlscolne/>) is a research and archive site (c/o Professor Alan Macfarlane, Social Anthropology). The website acknowledges the Essex Record Office and staff, staff of the Public Record Office, The Social Science Research Council, the Research Centre of King's College, Cambridge (who originally funded the project), the Renaissance Trust, the Cambridge University Computing Service and the Department of Social Anthropology for excellent facilities. This list illustrates how multi-institutional and costly in time and resources such work can be.

**Prosopography of Anglo-Saxon England** project (<http://www.pase.ac.uk/>) is run by the Department of Anglo-Saxon, Norse and Celtic in conjunction with KCL. Most of the IT work was done by the team at King's, rather than here at ASNC.

**Early Irish Glossaries** (<http://www.asnc.cam.ac.uk/irishglossaries/>) is a three-year AHRC-funded project. The website was launched at the start of the project in August 2006, and contains tools for searching and analysing glossary headwords. A new version of the website is being developed which will include the full text from each manuscript, with additional tools and links to further resources.

**The Electronic Sawyer** (<http://www.esawyer.org.uk/>) was a University of Cambridge development. It is now hosted in London. The site presents a searchable/browsable revised, updated, and expanded version of Peter Sawyer's Anglo-Saxon Charters.

**Kemble** (<http://www.trin.cam.ac.uk/kemble/index.php>) is linked to the The Electronic Sawyer Online Catalogue, but operates a separate Trinity College website. It is devoted to the study of Anglo-Saxon charters, and provides access to 'The Electronic Sawyer', 'Electronic Charters of Anglo-Saxon England', and 'Digital Images of Anglo-Saxon Charters'.

**Freeze Frame** (<http://www.freezeframe.ac.uk/home/home>) is the result of a two-year digitisation project that brings together photographs from both Arctic and Antarctic expeditions. The Scott Polar Research Institute in

the University of Cambridge holds a world-class collection of photographic negatives illustrating polar exploration from the nineteenth century onwards. Through Freeze Frame polar regions can be 'viewed' through the eyes of explorers and scientists who dared to go into the last great wildernesses on earth. Detailed catalogue entries are provided for each image. The project is funded as part of the JISC Digitisation programme and is hosted by DSpace.

**Remote Sensing in Inaccessible Lands** <http://www.archatlas.org/workshop/Petrie07.php>: ArchAtlas (<http://www.archatlas.org>) is a digital archaeological resource used by researchers from several institutions. It provides a visual summary of spatial processes in prehistoric and early historic times, e.g. the spread of farming, the formation of trade contacts, and the growth of urban systems; hosted projects use GIS techniques to integrate georeferenced information on archaeological sites, cultural entities and contact routes with environmental data and satellite imagery. *Remote Sensing in Inaccessible Lands* provides an example of Cambridge research use of this digital resource. Today, for political and other reasons, ground-based fieldwork is virtually impossible in many areas of Western and Central Asia (Iraq, Afghanistan, parts of Pakistan etc). However, with the widespread availability of free or inexpensive satellite imagery, these regions can now be 'visited' by looking at them from space. The use of satellite imagery in this way has a number of specific archaeological applications, including the reconstruction of ancient routes, the remote detection of archaeological sites and the assessment of site destruction and looting.

**The Tibetan-Mongolian Rare Books and Manuscripts (TMRBM)** project ([http://www.innerasiaresearch.org/T\\_Msite/tmindex.html](http://www.innerasiaresearch.org/T_Msite/tmindex.html)) is documenting, consolidating, cataloguing and making accessible the Tibetan and Mongolian books Cambridge (University Library), Oxford (Bodleian Library) and London (British Library). It is funded by the AHRC under its Resource Enhancement Scheme, and is administered by the Mongolia & Inner Asia Studies Unit (MIASU), Cambridge. The Catalogue of Tibetan Manuscripts and Blockprints is fully searchable online. It is a long-term archiving initiative making inaccessible manuscripts accessible to the wider world.

**Taylor-Schechter Geniza Project** <http://www.lib.cam.ac.uk/Taylor-Schechter/> is based at the University Library (The Taylor-Schechter Geniza Research Unit). The work currently involves the digitisation of 312,000 images. The work has been supported financially by the UL, FGP and has recently been awarded an AHRC grant to fund the Unit's ongoing work of decipherment and description, preparation of new catalogues and digitisation of some 16,000 Geniza manuscripts.

**Museum of Archaeology & Anthropology** <http://maa.cam.ac.uk/home/index.php/57/>: Online research projects include the following: (1) Blogjects (an innovative experiment where catalogue entries of the Museum's collections are presented in a BLOG format. Visitors can tag pages, select via a tag-cloud, comment, trackback and save searches, all within the catalogue blog), (2) Textiles (a website outcome of 2 years of research into the Museum's textile collections), (3) Visual Histories, and (4) The Wordie Expedition Website (a geo-blog mashup, charting the voyage of the 1927 Wordie Expedition to Greenland and Baffin Island through interactive maps, blogs, comments and collections). The Museum of Archaeology & Anthropology (MAA), under the ICT direction of Dr. Robin Boast, has led in the field of museum ICT development for the past 18 years. The MAA was the first museum in the UK to provide a searchable interface to all of its collections online (1996), and the first museum in the world to create a social and configurable interface to its collections (The Virtual Teaching Collection, 1997). Though the VTC was not a web application, it broke new ground in what today is called social computing. The MAA was one of the first UK museums to have a fully functional Collections Management System (1993), which formed the base model for the development of the UK museum standard (SPECTRUM). Since these early days, the MAA has been exploring new ways to make its collections socially available and useful on-line, and the extension of this work to the wider Web. This year, the MAA is releasing an Open-Source Collections Management System – only the second in the world. The MAA version includes features of expert and source community access and collaboration which are wholly unique in museum ICT. The MAA is also a primary partner in the development of the first Open-Source Collections Management System – Collections Space (<http://www.collectionspace.org/>) which is being developed by the Museum of the Moving Image (New York), the University of Toronto, the University of Berkeley, CARET (Cambridge), and the Mellon Foundation. The new MAA web site is based on a collaborative content management system, being used to pioneer new forms of two way collaboration with many expert communities (<http://maa.cam.ac.uk>). Most of the MAA's effort currently focuses on new forms of data use and sovereignty between museums and source communities. Dr. Boast's work with the Zuni in the USA (joint project with UCLA, funded by the NSF; <http://maa.cam.ac.uk/home/index.php/15/Zuni/20/>), his consultation with the Flinders University in

Australia, and with University of California, Santa Clara, in the US, all focus on returning patrimony to source communities, albeit digitally, for local community use and knowledge development. Future projects are planned to develop local knowledge sovereignty, especially as it extends to global web use and the eHumanities

**‘Primary Sources on Copyright (1450-1900)’** ([www.copyrighthistory.org](http://www.copyrighthistory.org)) is a digital archive of key documents relating to the history of copyright in five jurisdictions (France, Germany, Italy, the UK and US) from the invention of the printing press (c. 1450) to the Berne Convention (1886) and beyond. The project began in December 2005 and was initially funded by the UK Arts and Humanities Research Council (AHRC). The website provides over 600 documents, including privileges, statutes, judicial decisions, contracts and materials relating to legislative history, but also contemporary letters, essays, treatises and artefacts. The documents have been transcribed and translated by a national editor responsible for each jurisdiction. There are five national editors including Dr Joanna Kostylo of the University of Cambridge (Faculty of Law). The database and website however have been designed by Karin Hoehne (Universität Köln), based on the open source Kleio system developed at the HKI Institute (<http://www.hki.uni-koeln.de>). For each geographical zone/jurisdiction, the national editor has responsibility for selecting, sourcing, transcribing, translating and commenting documents. These include privileges, statutes, judicial decisions, contracts and materials relating to legislative history, but also contemporary letters, essays, treatises and artefacts. The documents and database can be browsed from the project web site. The national editors also provide a commentary for each selected document explaining its significance. Each document is introduced by an Abstract, and catalogued according to international library standards, as well as a bibliographical template specifically designed for this project that creates the following browsable categories: referred persons, places, institutions, legislation, case law and 140 subject matter keywords. It is hoped that the Primary Sources will become a collaborative environment which will bring digitisation of many more documents and that it will serve as a rich resource for scholars in a variety of fields and disciplines.

## Appendix II

**Co-funded by CRASSH, RSD, the AHRC (IRTN), CRASSH ran two digital Humanities workshops:**

**Workshop 1 (6-7<sup>th</sup> January 2009)** 'Building a Virtual Humanities Collaboratory', was held at CRASSH, with speakers from Cambridge and further afield (London, Oxford, Dublin, Chicago and, by video-link, New York). The meeting was attended by some 50 people including representatives from ProQuest and CUP.

**Abstracts and presentations are available from:** <http://www.crassh.cam.ac.uk/events/751/>

A Virtual Research Environment (VRE), or collaboratory, promises to bring together tools and resources for Humanities researchers. The exponential increase in online resources and online collaboration, the range of new online tools for creating and mining many different kinds of data - visual and textual - confront Humanities researchers with an often dizzying array of possibilities. Humanities research environments and communities are changing rapidly under the impact of new digital tools and technologies, producing many different kinds of project and databases, and demanding new kinds of expertise. As VREs take root in Universities or departments, disciplines or individual projects, it becomes ever more important to find ways to link these different scales and kinds of operation. Questions addressed included: What are the benefits of a virtual Collaboratory for Humanities researchers? What are the chief obstacles to digital research in the Humanities at present? How can universities best provide eHumanities tools and educate future humanities researchers in their uses? What problems of interoperability with existing infrastructures confront digital researchers in the Humanities? How can we manage 'data deluge' and what protocols need to be established? What are the intellectual and academic issues at stake in digital Humanities research?

**Cambridge speakers are indicated by □**

- |                        |  |
|------------------------|--|
| Susan Schreibman       | <i>The TEI and Semantic Interoperability</i>   |
| □ Robin Boast          | <i>Modification, Reuse and Subversion: Digital Object Collections and the Humanities.</i>  |
| □ Hildegard Diemberger | <i>Tibetan books and digital dilemmas: issues of standards and digital asset management in a collaborative project.</i>  |
| □ Mark Turin           | <i>Collaboration, Access and other Unexpected Consequences: Reflections on 8 years of the Digital Himalaya Project</i>   |
| Chris Mackie           | <i>'Those who do not know history...' VLEs and eHumanities Infrastructure</i>  |
| Martin Wynne           | <i>CLARIN: A Pan-European Research Infrastructure for Language Resources and Technologies</i>  |
| Paolo D'Iorio          | <i>Scholarsource. A New Paradigm for Digital Humanities</i>  |
| □ Robert N M Watson    | <i>Historians, Computer Scientists and the Digital Revolution: Why Collaboration Matters</i>   |
| □ Raphael Lyne         | <i>From Scriptorium to Collaboratory</i>   |
| Alun Edwards           | <i>Mass Digitisation and Visualizing: The Great War Archive</i>  |
| □ Ian Cross            | <i>Digital music: Beyond Text?</i>   |
| □ Rod Rivers           | <i>Cambridge Images Project: A Federated Architecture</i>  |
| Alan Bowman            | <i>Documents, Texts, and Images in a Virtual Research Environment</i><br>( <a href="http://bvreh.Humanities.ox.ac.uk/VRE-SDM">http://bvreh.Humanities.ox.ac.uk/VRE-SDM</a> ) |
| Chad Kainz             | <i>Bamboo: Defining Infrastructure, Creating a Community</i>   |

**Workshop 2 (20<sup>th</sup> February 2009) IRTN Workshop for graduate students and early career researchers**

**The Archive in the Digital Age**

A workshop for graduate students and early career researchers that introduces new tools for research into some of the many digital archives that exist across a range of disciplines, demonstrating how these resources can be used to ask new questions and how 'the Archive' itself is changing as it becomes increasingly digital.

**Abstracts and presentations are available from:** <http://www.crassh.cam.ac.uk/events/855/>

All the speakers at this workshop are Cambridge-based.

- |   |  |
|---|--|
| John Norman (Caret)   | <i>Scholarly Networking for Humanities Researchers</i>   |
| Sue Mehrer and Emma Coonan (UL)   | <i>From the Gutenberg Bible to Born Digital: Electronic and Digitised Collections at Cambridge University Library</i>  |
| Ben Outhwaite (UL)  | <i>Digging in the Crates: the Cairo Genizah in the Digital Age</i>   |
| Raphael Lyne (English)  | <i>The Digital Scriptorium</i>   |
| Paul White and Sam Kuper (UL)   | <i>Putting Darwin's Letters Online</i>   |
| Mark Turin (Soc. Anth.)   | <i>Himalayan Archives, Online and Off: the Digital Himalaya Project and the Return of Cultural Property</i>  |
| Leigh Denault (Digitization of History Project, Centre for History and Economics, King's College) | <i>History and the Archives of the Future: How Digitization Changes Everything</i>   |
| Cameron Petrie (Archaeology)  | <i>Remote Sensing Inaccessible Areas and Lost Landscapes: Looking for Archaeological Sites along Old Routes and in Areas of Intensive Agricultural Activity in Iran, Afghanistan, Pakistan and India</i> |
| Robin Boast (Museum Arch & Anth)  | <i>'We are a Part of the Records that we Keep': Stabilizing Plurality in the Postmodern Archive</i>  |
| Ian Cross and Martin Rohrmeier (Music)  | <i>Digital Musicology: Aims, Issues and Consequences</i>   |

## Appendix III

### List of Major Projects and Initiatives at the University of Cambridge

A CamTools website for people interested in Digital Humanities is now maintained by Tamsin Mann ([trp21@cam.ac.uk](mailto:trp21@cam.ac.uk)). In addition, a list of 'Cambridge Digital Projects' is available on the CRASSH website, with links to each project

<http://www.crassh.cam.ac.uk/page/301/cambridge-projects.htm>

Some website relate to University-wide digital projects and archives, e.g. [Darwin Online](#) and the [Darwin Correspondence Project](#). Others are department specific:

- (Archaeology) [Land, Water and Settlement](#)
- (Archaeology) [Languages and Origins in Europe](#)
- (Archaeology) [Lismore landscape Project](#)
- (Archaeology) [Personal Histories in Archaeological Theory and Method](#)
- (Archaeology) [Quoygrew and the Viking Age Transitions Project](#)
- (Archaeology) [Remote Sensing in Inaccessible Lands](#)
- (Archaeology) [The Archaeology of Bova and Bova Marina](#)
- (Archaeology) [Ardnamurchan Transitions Project](#)
- (Archaeology) [Changing Beliefs of the Human Body](#)
- (Archaeology) [Exploring Routes and Plains in Southwest Iran from Space](#)
- (Archaeology) [The Troina Project](#)
- (Archaeology) [Interviews with Archaeologists](#)
- (Archaeology) [Investigating ancient Pushkalavati](#)
  
- (Architecture) [Digital Studio for Research in Design, Visualisation and Communication](#)
  
- (Centre of South Asian Studies) [Oral History Collection](#)
  
- (Classics) [Roman Town project](#)
- (Classics) [Cambridge School Classics Project](#)
- (Classics) [The Greek Colonization Project](#)
- (Classics) [Roman Burials Project](#)
  
- (Corpus Christi College) [Parker Library of the Web](#)
  
- (Divinity) [AHRC Greek Bible in Byzantine Judaism Project](#)
- (Divinity) [Investigating Atheism](#)
- (Divinity) [Cambridge Interfaith Programme](#)
  
- (English) [Medieval Imaginations](#)
- (English) [Cambridge English Renaissance Electronic Service](#)
- (English) [Converse](#)
- (English) [Edmund Spenser Home Page](#)
- (English) [English Handwriting 1500-1700](#)
- (English) [Scriptorium](#)
- (English) [Prosopography of Anglo-Saxon England](#)
- (English) [Early Irish Glossaries project](#)
- (English) [The Electronic Sawyer](#)
  
- (FAMES) [Shahnama Project](#)
- (FAMES) [The North Eastern Neo-Aramaic Database Project](#)
  
- (Geography) [The Occupational Structure of Britain 1379-1911](#)
  
- (History) [Take a Journey into History](#)

(History) [Project on International and United Nations History](#)

(King's College, Cambridge) [Digitization of History](#)

(King's College, Cambridge) [History and Sustainability](#)

(Law) [Primary Sources on Copyright](#)

(Law) [Eminent Scholars Archive](#)

(Linguistics) [A Historical Corpus of the Welsh Language 1500-1850](#)

(MML) [The Development of negation in the languages of Europe](#)

(Museum of Archaeology & Anthropology) [Blobjects Collections Blog](#)

(Museum of Archaeology & Anthropology) [MAA Textiles Project](#)

(Museum of Archaeology & Anthropology) [Visual Histories](#)

(Museum of Archaeology & Anthropology) [Wordie Expedition Mashup](#)

(Museum of Archaeology & Anthropology) [Assembling Bodies](#)

(Museum of Archaeology & Anthropology) [Arctic Collections](#)

(Museum of Archaeology & Anthropology) [Recontextualizing Digital Collections](#)

(Philosophy) [Cambridge Philosophy Wiki](#)

(RCEAL) [English profile](#)

(RCEAL) [Categories and Gradience in Intonation](#)

(RCEAL) [Sound2sense](#)

(Scott Polar Research Institute) [Freeze Frame](#)

(Social Anthropology) [Digital Himalaya](#)

(Social Anthropology) [Orbital](#)

(Social Anthropology) [An inter-disciplinary study on multi-language inscriptions in Mongolia](#)

(Social Anthropology) [Christopher Kaplonski](#)

(Social Anthropology) [Digital Orient](#)

(Social Anthropology) [Alan Macfarlane's website](#)

(Social Anthropology) [Earls Colne, Essex](#)

(Trinity College) [Kemble](#)

(UL) [Taylor-Schechter Genizah Research Unit](#)