AHRC ICT Methods Expert Seminar

EVIDENCE OF VALUE: ICT IN THE ARTS AND HUMANITIES

CENTRE FOR RESEARCH IN THE ARTS, SOCIAL SCIENCES AND HUMANITIES (CRASSH), UNIVERSITY OF CAMBRIDGE
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Rapporteur's Report by Lee Wilson

The two-day event, jointly convened by the AHRC ICT Methods Network and the Centre for Research in the Arts, Social Science and Humanities at Cambridge (CRASSH), aimed to explore the wide implications of the use of new practices and research methods in the arts and humanities that have been facilitated through ICT. With large sums of public money being channelled into this area, how is the 'value' of this investment assessed, what exactly are we assessing and for whom? The conference also explored broader questions arising from the use of digital technologies, including attempts to address the value of the arts and humanities more generally, and the issues surrounding the constitution of value and its quantitative and qualitative measurement from the perspectives of both policy makers and practitioners. Although ICT was the starting-point for this discussion, wide-ranging questions about value in policy, strategic research, and academic partnerships in human intellectual, cultural, and artistic endeavour were productively aired and debated during the two days.

Professor David Robey of the AHRC's ICT Programme opened the conference with a brief introduction outlining some of the funding council's concerns. Robey noted that the Methods Network initiative was due to run till March 2008, and that its focus to date has been on infrastructural development. There is a need not for an increase in the employment of ICT in research, but in the ways in which the quality of its use can be ascertained and improved, to know who is using AHRC-funded digital resources, and how, why and what is being used. Evidence of the value of these resources should then, he argued, be qualitative as much as quantitative, an introduction that was particularly salient for the panellists on the first session of the day.

Session 1: Digital repositories: valued resources or data tombs?

Much public money has been spent on the creation of digital repositories as a means of promoting access to resources in the arts and humanities. For stakeholders they are an easy means of assessing value for money and counting things deposited. Four Cambridge researchers who lead or are central to large AHRC-funded digital projects discussed these issues in relation to their work. The five projects represented by the four panellists: the *North Eastern Neo-Aramaic Database Project (*http://nena.oriental.cam.ac.uk/); the *Complete Works of Charles Darwin Online* (http://darwin-online.org.uk/); the Taylor-Schechter Genizah Research Unit (http://www.lib.cam.ac.uk/Taylor-Schechter/), the *Darwin Correspondence Project (*http://www.lib.cam.ac.uk/Departments/Darwin/); and the *Knowledge Resource Network* (http://www.jbs.cam.ac.uk/krn/), had, to varying degrees, considered issues of preservation, accessibility and sustainability in the conception of their research projects. For example, in Geoffrey Khan's Aramaic project, the preservation of fast-disappearing dialects was paramount, whereas John van Wyhe's *Complete Works of Darwin Online*, not driven by the exigencies of documenting a rapidly dwindling resource, has been concerned with both sustainability and access.

One of the inherent difficulties in determining the value of digital resources might then be the need to weigh issues such as preservation against access and sustainability. Ellis Weinberger, speaking of the durability of vellum and parchment, highlighted in contrast the volatility of digital objects and the mutability of the technologies employed in creating and accessing them. Digital objects therefore need to be constantly updated and migrated to different platforms. Thus, from the perspective of preservation, they are at present far from being a sustainable resource. Matt Riddle, from the Centre for Applied Research in

Educational Technologies at the University of Cambridge (http://www.caret.cam.ac.uk/), argued that a common mistake has been to assume that objects stored in a digital repository have intrinsic value in their own right. Things have value by virtue of being embedded in social relationships, and it is these that should be considered when designing a repository. The important question to keep at the fore is what the purpose of a repository is in the first place. In what context, for example, were the materials stored in a digital repository originally used, what kinds of relationships were they a product of and might they give rise to, and how might this differ in another context?

The variation in the objectives and materials of the repositories featured highlighted a key point: that there is no 'one size fits all' approach to the building and sharing of repositories. Institutionally-led agendas for the standardization of databases often assume commensurability between the objects and aims of different projects for the sake of ease of production. What might this imply for the unintended or unforeseen consequences of the use of digital objects in the face of regulating things too closely?

Session 2: Knowledge on the move: What is transferable about 'knowledge' and what does this imply?

Funding for academic research in the arts and humanities places increasing emphasis on 'knowledge transfer', including practical outcomes of the research outside the academic sphere. This session addressed the question of whether new technologies, including social networks, knowledge archives, digital civic spaces or on-demand content delivery, have any relevance to research and public policy, and whether they are an important component of the creative economy. Models of knowledge that underpin the conception of 'knowledge transfer' often ignore the sociality of knowledge production and use. Dissemination of knowledge is held to be of value by stakeholders, but could there be a greater emphasis on facilitating engagement with 'non-academic' users of resources?

ICT is often seen as central to recent efforts at 'knowledge transfer'. Notions such as 'knowledge transfer' imply that knowledge itself is an object. In the opening presentation of this session, social anthropologist James Leach argued that knowledge is better understood as primarily a matter of social relations. The production of 'things' or objects is secondary, and it therefore follows that any attempt to ascertain evidence of value of ICT in research should begin with the forms of social relations that are engendered. In a similar vein Robin Boast, of the Cambridge Museum of Archaeology and Anthropology argues that 'knowledge', what is 'known', is constantly under negotiation, a process of recontextualization, of being made 'local', and ICT has tended to neglect this aspect of the production of knowledge. Knowledge does not 'travel' unidirectionally, objects and visitors are transformed in many different ways, building networks between actors. The exchange between different knowledge communities is not an equal engagement.

David Good's presentation explored what is transferable about knowledge, and what might this imply? If, in the process of evaluation, comparisons of the use of ICT are to be drawn across disciplinary boundaries then what kinds of measures might be used for these purposes? How, when, where and for whom might evidence of the value of ICT in humanities research be sought? From the animated discussion that followed the presentations, several key issues united the panel members. Knowledge is not just conceptual, but consists of practices, the 'day to day doings' of persons. It follows that difficulties, such as those presented by, for example, interdisciplinary research, are not just a matter of 'translation', but being able to identify gaps and incommensurabilities between different knowledge practices.

Various examples from the arts sector were cited of attempts to use ICT methods to measure 'value'. It was however suggested that while it is possible to ascertain quantitatively the number of visitors to a website or how many picture texts were sent by SMS from an event, measuring the impact this might have is another matter entirely. The issue of public accountability was raised, and the difficulties in attempting to come by some measure of value that is acceptable to diverse constituencies and interests. While academics may rail against the horrors of regimes of audit and accountability, just how one might measure

value qualitatively is far from clear. And where it might be done, through the use of, for example, ethnography, this is often far from an acceptable indication of the benefits of the allocation of resources for policy makers.

Addressing the issue of how, where and for whom we should look for value in ICT David Shepherd, Director of the Humanities Research Institute at the University of Sheffield, argued that ICT should not be treated as a separate case, and the same criteria should be applied as are used to assess the impacts of research. Configurations of metrics could be used to minimize the differences in ICT and standard research assessments.

KEYNOTE SPEAKER : JOHN HOLDEN, DEMOS

The first keynote speaker, John Holden, argued that there was currently lack of connection in policy making in the management of the arts in the UK. Drawing a triangular model of the relationship between politicians and professionals, located at the base of the triangle, and the public, located at the apex, he pointed to the lack of communication between the politicians and professionals, and the public There were perhaps no surprises, given Holden's position at the think tank Demos, in his insistence on the importance of the media in the instantiation of public value, and the necessity of addressing the press as well as Westminster in order to effect change. His address was however insightful, and drew on Actor Network Theory to theoretically ground his argument, which he illustrated with an account of Muybridge's photographic study of horse locomotion. In conclusion Holden argued for a more sophisticated understanding of how change happens, emphasizing the importance of the relationships between persons and things. In this policy making might be better rooted in 'anthropological enquiry rather than scientific experiment.'

Session 3: Public Value: Who are the 'public' and what might 'they' value?

Speakers on the third panel examined the ways in which the increasing use of ICT in the arts and humanities is of value to public life. How, if at all, has the nature of this engagement changed with the advent of new technologies? Should the value of cultural projects be measured in accordance with particular social or economic outcomes? Do stakeholder priorities ensure that only those projects that are accountable in terms of their perceived instrumental value receive funding? What of the subversive potential of new technologies and the ways in which their public use might develop in unexpected and unforeseen ways?

Francois Penz, from the Digital Studio for Research in Design, Visualisation and Communication spoke about the connection between architecture and cinema, the narrative organization of space and spatially organized narrative, and the often prohibitive expense of some of the technologies, for example blue-screen film-making techniques, employed in this kind of research. One way in which this might be addressed was through the creation of ICT centres, jointly funded perhaps by a number of universities. A particularly exciting project was the use of 3D computer modelling in hospital design to produce an animated narrative through which different actors, surgeons, administrators, porters, etc. might engage with and modify design in ways particular to their own encounters with the design environment. The aim then was not just communicating design, but the facilitation of dialogical engagements with diverse publics *through* design.

What value might be for multiple audiences or users was explored by Chris Burlinson, who is involved in creating a digital archive of miscellanies from the mid-fifteenth century through to the early-eighteenth century. Hildegard Diemberger, from the Tibetan and Mongolian Rare Manuscripts Project, detailed how the digitizing and archiving of politically-charged artifacts of great significance to a number of different groups raised important questions about who might benefit from the preservation of these objects. The project has acted in a brokerage role, catalysing and negotiating an engagement between the Chinese government and the Tibetan community. Diemberger's presentation thus illustrated the complexities of

working with multiple 'publics', matters that are often overlooked or even elided in projects that focus on the technologies of production and neglect the politics of production.

KEYNOTE PRESENTATION : JOHN KNELL

John Knell's presentation addressed the problem of 'personalization'. The thrust of Knell's argument was that the arts sector funding has, to date, not been properly targeted, and investment has been aimed at the producer and not the consumer. This is what lies at the root of the sector's failings to capitalize on the potential of digital technologies. What was needed was a collapsing of the dichotomy of 'elite' producers of art and the consumers/public. This could be achieved by a focus on engaging with the consumer through 'soft' and 'hard' personalization. Soft personalization involved greater accountability on the part of the organization, not just profiling consumers, but allowing greater access to the organization through feedback and response mechanisms, all of which could be achieved through greater digitization. Hard personalization went one step further, engaging the user as co-producer and active partner in the productive process. Driving the personalization agenda in the modern world are artistic innovation and the transformative power of ICT. Academics, Knell argued, have the skills to shape the development of personalization, to ascertain what 'value' is for whom and where it might lie. Inasmuch as breaking down the barriers between artist/producer and audience/consumer, eroding the position of cultural elites, academic input is not just relevant to the production of cultural policy. Academics potentially have a far more democratizing role to play in the creative process itself.

Session 4: Does innovative technology lead to, or depend on, innovative arts research in the creative economy?

The final session focused on the links between arts and technology. How might ICT facilitate collaboration as a means of achieving value for parties involved in creative projects? How, for example, might artists contribute to the research process in ways other than merely as the clients of technologists. Do stakeholders and recipients of funding see themselves as collaborators? Where do 'non academic' communities figure in this collaborative relationship. Innovation itself is often touted as a desirable project outcome or deliverable. How might one assess if a project is 'innovative'? Alan Blackwell, from the Computer Laboratory (University of Cambridge) introduced the session, making the point that artists often perceive themselves as technological innovators. Moreover, innovation is itself often used as a surrogate for 'economic well being'.

Maureen Thomas presented her work with Digital Studio, describing it as a space in which there is no clear distinction between arts and technology. The practice-based work in which she is involved creates additional difficulties for locating and assessing value. Evaluative frameworks, she argues, need to be more flexible, especially when appraising practice-based research, or practice as research.

Ian Cross from the Centre for Music and Science (University of Cambridge), gave a wonderful example of a fascinating project to illustrate the kinds of interactions between scientists and musicians being facilitated at the Centre, an ongoing experiment to distinguish the ways in which performers distinguish between the sound that a violin makes, the ways in which a particular instrument resonates, through a audio-haptic feedback loop. The ways in which performers had been able to differentiate between instruments had thwarted the expectations of the scientists. Technology may then leave cracks which art can lever open through a perturbation of the epistemic frameworks. Art and science collaborations thus have the potential to subvert expectations and therefore effect change. Developing this notion of the subversive further, Cross characterized innovation as multiple levels of subversion. These kinds of innovative processes have emergent properties in the long term, often far beyond the three- to five-year funding frameworks of the research councils.

Dawn Giles, of Arts Council East, outlined efforts to assess the 'value' of an Arts Council programme that places artists within industry via the development of a knowledge base, a repository of best practice case

studies, that arts organizations could draw upon. She emphasized the value of generative relationships, and pointed to the difficulties of 'measuring' the long-term value of these relationships.

The difficulties of using qualitative methods of evaluation in policy was emphasized by Madeleine Clegg, from the Department of Culture, Media and Sport. Explaining that she saw the role of the DCMS as acting as 'translator' to the treasury in spending reviews, her role was in part to articulate the benefits of the cultural sector in terms of monetary value and models of market failure. In dealing with the Treasury it was a tactical necessity to frame things instrumentally, to translate them into their frames of reference. However, she argued, of equal importance are the ways in which culture enriches peoples' lives, and ascertaining for which groups this might be the case for. This is though very difficult to evaluate and to translate into economic terms of, for example, 'market failure'. In the case of innovation, the Department of Trade and Industry see this as synonymous with Research and Development, for which they have methods or measuring and quantifying. One way to look beyond current evaluative frameworks might be an expansion of what is inferred by 'innovation' beyond this narrow association with Research and Development. The challenge though is still how this might be measured and articulated.

Peter Tyler, from the Department of Land Economy, summarized the results of his recent research into why certain towns and cities develop as centres of innovation. One of the main conclusions of the report was that one of the drivers of innovation was the cultural infrastructure, not the Research and Development infrastructure. The importance then, of a thriving artistic and academic community, of creativity to innovative process, was something that was borne out in various ways by all the panellists. However, as Peter Tyler noted, many evaluative frameworks are outcome focused, and do not look at collaboration, the ways in which people work with each other.

Conclusion

David Robey had the difficult task of summarizing the many points that had arisen from the panels and discussions over the course of the two-day conference. Turning his attention first to the capacity to implement ICT in HE institutions, he noted that only four or five universities in the UK actually provide specialist ICT training and support for the arts and humanities. There was then a need for the evidence of value of the inter- and intradisciplinary exchange of ideas and methods, for the long-term sustainability of projects, databases and the like, for the tools and methodologies that are employed, for training and staff development and second stage support networks such as the AHRC ICT Methods Network.

Arguing that evidence of value is to be found in the transfer of knowledge from the academic to the wider community, Robey stressed the need for 'consumer' research to be carried out by the producers of resources. There was a necessity to ascertain what the 'right path' might be, to differentiate between the immediate and long term impacts of research projects and to distinguish between direct value and that which is mediated.

With respect to evidence of 'new kinds of knowledge' he noted the need for output and dissemination, and also drew upon Knell's characterization of hard and soft personalization. Soft personalization might encompass the use of ICT to support and interact with colleagues in the form, for example, of online journals. ICT might in this way facilitate collaboration, networking, community building and interaction between different parties. Digital resources that could be characterized as aggregative and integrative, virtual collections and the like, needed to reach a critical mass of users before they became widely used. Yet these resources might be valuable for other reasons, for example for preservation. Furthermore, there was a need to address multivalency, and to allow for the unforeseen consequences of engagements with people and objects.

And finally, there was the problem of acknowledging value for funders. In an institutional context the Research Assessment Exercise (RAE), for example, was often incongruent with the kinds of activities facilitated by interactions in and around ICT. The challenge was to both ascertain where value might lie for

all parties, and to balance the needs and imperatives of stakeholders and end-users in a way that actively encouraged the uptake and continued use of digital resources. Robey concluded poignantly by drawing attention to the lack of connection between the development of digital tools and the use of these same tools to engage with a wider audience beyond academia. By facilitating knowledge transmission through ICT the value of artistic and academic endeavour might be demonstrated to a broader public. However, in the arts and humanities the opportunities offered by digital technologies had yet to be capitalized upon.