

AHRC ICT Methods Network Expert Seminar on Visual Arts

FROM PIGMENTS TO PIXELS

Hosted by Mike Pringle (AHDS Visual Arts) Chelsea College of Art and Design, London, 27 April 2006.

Rapporteur's Report

Chris Bailey, Dean of Arts and Society, Leeds Metropolitan University

In her introduction to the Expert Seminar, Lorna Hughes identified the purpose of the series as to describe and examine the impact of ICT on research in the field. This seminar revealed that the impact goes way beyond the introduction of some new tools and methods. Rather, ICTs are radically changing the production of visual culture, its presentation and representation, and its analysis and evaluation. The shape of the 'field' is changing more rapidly than ever before. Furthermore, since 'research' in the creative disciplines is frequently equated with advanced practice it was possible to conclude that failure to invest in ICT to support research into and through the visual arts would be to fall far behind in the generation of new areas of knowledge and understanding.

The structure of the seminar afforded two different perspectives on this complex landscape. The first addressed the range of ICT-based methods for distributing and accessing visual information, and examined a range of questions of accountability, governance and control. This session assumed both that 'art' is a subset of the visual data that visual arts researchers might be interested in, and also that researchers other than visual arts researchers are increasingly interested in visual images. In the second session a model of practice-based research was introduced, throwing up the questions that arise when ICTs are used in the creative process in the visual arts. Attending the meeting were experts in a wide range of visual arts disciplines including designers and artists, historians of art and design, archaeologists, curators, archivists, librarians and information managers and visual arts technology consultants. Although far from being an inclusive representation of all the research communities that now make regular use of visual image data, the meeting exhibited the very wide range of research questions that are currently being posed, and addressed, using visual arts research methods. The discussion during the day returned regularly to the key questions. What are these, how are they connected, and how might research methods being used in one discipline be most effectively transferred to, and developed in, another?

In his talk, Tom Morgan, Head of Rights and Reproductions at the National Portrait Gallery, spoke about the use of image metadata, relating to definitions of purpose and end-user communities. His focus on the picture library industry, where the business of using words to find pictures is well established and highly developed, explored the expectations of users and the increasing need to accept that the authority of institutions, and the assumptions underlying the paradigms used to structure data, will be challenged. He showed that the earlier 'book illustration' paradigm of person-to-person enquiry is being superseded. The discipline image providers have in mind is no longer art history, in which a demand is fulfilled through the supply of an image, but the attachment of multiple meanings to an image by its users, and then sharing these with others. The millions of hits on major museum web sites are being used in ways that echo the strategy of Wikipedia, a structured multi-author work now often considered as reliable as conventional encyclopedias, or the less structured 'cloud tagging' found on web sites like FlickrR. The act of 'tagging' is a form of active listening, which creates meaning for emerging communities of image users.

For Stuart Jeffrey, User Services Manager at ADS/AHDS Archaeology, the central problem is the sheer scale of the resources available and the resulting complexity of datasets. Users 'need to know what they need to know' before they can begin to make effective use of the resource. When resources such as those in Archaeology include multiple file varieties such as text, still images, spreadsheets and audio-visual, available as databases, 3D, VR and Geographic Information System (GIS) files they cannot usually be passively consumed. Instead the user must define queries in order to derive full benefit from them. Where previously archaeological data from prehistoric sites might have concentrated on physical characteristics, now user-defined properties are included, such as how that site appears at different times of the day. Standardizing approaches to the creation of VR data, as is being attempted with the London Charter, is an important research project in itself. Supporting visual arts research using such resources may mean creating additional software to access the files, providing sample subsets for familiarization and experimentation, perhaps on the Internet, and offering extensive guides signposting users to the right data. The scale and complexity of resources means that the bar is continually being raised for data providers. When confronted by a new database the user community is now expecting to 'click and find' rather than 'type and hope'. Unless these issues

are considered there is a danger that very useful resources will remain untapped because the likely user community is not aware of what they are and what they are capable of doing.

Where Jeffreys and Morgan pointed to the potential conflict when 'authoritative' databases admit user-defined data, Kirk Martinez, from the University of Southampton, raised explicitly the question of the 'hidden web' - the ontological limitations - or paucity of characteristics - in the standard visual image database. In SCULPTEUR, an EU funded project, the demonstrator combines traditional metadata based searching with 2D and 3D content based searching, and also includes a graphical ontology browser so that users unfamiliar with the Victoria and Albert Museum collection can visualize, understand and explore an 'information space'. In another project, eCHASE, the user enters a single, on-line site that provides a contextualized access point for the multimedia cultural content currently distributed across the museums, galleries, photo libraries and audiovisual archives of Europe. Adding adaptive search fields and agents that will do the searching could further simplify the task for the researcher.

Drawing threads together, Mike Pringle, from AHDS Visual Arts, asked 'How do you look when you don't know what you are looking for?' Quite often, researchers are expected to use language-based search techniques, even when the data sought is visual. He observed that approaches for sharing or finding via visual approaches can seem sporadic, inefficient and often unsatisfactory. Summarizing the current state of the art, he categorized the most common approaches to organizing data for effective visual browsing as visual metaphors - the use of images to represent abstract information; image content - or content-based image retrieval; and data visualization - using abstract, diagrammatic forms to express complex data. There is also scope for the use of technologies from unrelated research fields, especially those concerned with visualization in medicine and navigation, to generate new approaches to problems in the visual arts.

The discussion which concluded the session questioned whether there is consensus on which approaches would meet the needs of the majority of visual arts researchers, how reliable wiki-based and folksonomic development of resources would prove to be, and how sustainable very large and very complex databases would be in the light of the economic considerations brought to bear by research councils. The visual arts, in common with much of the humanities, tends to diversity of research practice, making it harder to determine when the 'tipping point' might come when most, if not all, researchers in the visual arts might regard some resources and tools as standard.

The second session broadened the scope of the debate to include the use of ICTs to conduct practice in the visual arts. Jonathan Woodham, from the University of Brighton, distinguished between practice-led and practice-related research in the visual arts. He argued that there was a fault line to be mapped onto this distinction between the approach to innovative practice in the policies of the Arts Council of England and the Arts and Humanities Research Council. The former could be said to be concerned with the artist, the latter with outcomes, and more contentiously, the former with open-ended risky research, the latter with what is assessable. He recognized that the Open University had led for decades on the production of 'democratic' teaching materials and, through initiatives such as the HEFCE funded Centres for Excellence in Teaching and Learning. In the CETL-Design, research is being supported through the creation of archival resources bringing together data from many sources and accessible remotely. He concluded that, as yet, the link between the provision of digital resources in art and design and improvement in research quality had yet to be proved.

Roger Wilson, Head of the Chelsea College of Art and Design, argued that ICTs are becoming part of the research armoury at just the point at which art and design are welcomed into the fold as a vibrant and growing economic sector, eliding the old distinction between the academy and commerce. It is arguable that ICTs are hastening the process, and that it may not be in the interests of creative practitioners to adopt wholeheartedly processes of reproduction and distribution that could devalue their independence and integrity.

Charlie Gere, from Lancaster University, argued that it is too simplistic simply to regard digital image technologies as new ways of representing the work. Pigment and pixel are not somewhere on the same spectrum - they are quite different in kind. Illustrating his argument with a number of moments of technological change, he showed that the idea of what ICTs could do has shifted constantly as our metaphors for digital technology has shifted. The power of digital technologies to make our world, to be 'performative rather than constative', must be understood and taken into account. It is possible therefore to recast the role of ICTs in the visual arts as the means by which 'new media artists' cause us to rethink our world - ICT as practice as research.

The concluding discussion focused on the different requirements of practitioners in the visual arts, some parts of which have taken relatively little interest in ICTs, and whether it would be appropriate to regard this as a question of obstacles to adoption. While other disciplines have proved relatively amenable to adoption, scaling up projects to mainstream services covering a wider range of disciplines has sometimes proved problematic. Research tools have not developed in the visual arts to the extent they have in other disciplines, nor was it completely evident that, when research datasets in the visual arts were deposited, they were readily re-used by other researchers. Ensuring that

ICTs become sufficiently widely shared to pass the tipping-point requires the building of communities of researchers with common interests in both subject and method. 'What's in the toolbox' depends on what the job is and who is doing it.

A recent town meeting on the theme of practice-led research had reached the consensus that research through practice and research into practice had different requirements and would take different stances on ICTs. For instance art practice has sometimes purposely employed outmoded technology to make its point, just as any means of reproduction is available to be exploited for its aesthetic effects or cultural significance. In the visual arts there is considerable heterogeneity of motives for the adoption of ICTs in the visual arts, and an equally broad range of indicators for success. We need a 'thick description', to use Geertz' phrase, in order to fully understand the interactions between users, researchers and funders. The most important indicator of sustainability, apart from the legacy of readily accessible and widely used resources, will be the continued vitality of research in the visual arts disciplines themselves.