

Proposed e-Science Theme, April 2007-April 2008

"e-Science in the Arts and Humanities"

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Goals of this Theme

This Theme proposal has several aims and objectives.

Firstly, we hope to present an programme of activities and events at the eSI that will provide a comprehensive, case study based, overview of the ways in which arts and humanities (A+H) researchers are engaging with e-science technologies and the emerging UK-wide e-Infrastructure in order to enhance the research that they are doing.

Secondly, we hope to use these activities and events as the basis for a series of high-profile workgroups, and an international expert seminar, that will allow invited participants to engage in considered debates around the fundamental research questions presented by the challenge of engagement in the e-Infrastructure by A+H researchers. By examining the ways in which this work is embedded in research practice and research needs, we will be able to address some fundamental questions: what are the new challenges for research in the A+H, and how is this new research agenda to be defined? How can it be innovative and push barriers, yet be sensitive to those less engaged, and expand beyond the "early adopter" communities? What is the international context, and how does this activity have resonance beyond the UK research community? What are the strategic considerations for researchers, students and funders as this agenda is taken forward, and how are the emerging communities of practice now actively engaging with the e-infrastructure to be supported in the future?

Fundamental to the development of this Theme will be the opportunity to develop and support an ongoing debate and dialogue between A+H researchers and researchers from scientific disciplines, as well as with the computational science community, including both computer and computational scientists and software engineers and technical experts. Through this collaboration, we hope to achieve our third goal, which is to identify points of commonality between the A+H and the scientific communities who are using the e-Infrastructure, and to develop a forum for the development of dialogue, partnerships and collaborations between the communities - whilst also examining the key differences and points of divergence between the communities.

It is important to stress that the A+H and scientific communities have much to learn from each other: we wish to encourage participants in this Theme to consider not just what e-science can do for the Arts and Humanities, but what the Arts and Humanities can do for e-Science. We wish to demonstrate that that multiple areas of commonality exist, including use of highly dispersed content (including large scale images, moving images, sound) joined up through the grid and appropriate tools; the semantic grid and ontologies; deep data and text mining (inc. image and sound) using different methods, including deep log analysis for connecting; folksonomies; and annotation; collation, visualisation, and simulation.

Another important component of the Theme is the development of a training and outreach programme in several key aspects of e-Science, which is specifically aimed at A+H researchers. Materials developed for these training sessions will be based

around A+H exemplar materials and case studies, and will be developed by AHESCC in close collaboration with eSI staff. We hope that these will form the basis of the development of a 'core curriculum' of training materials for e-Science in the A+H which can be re-used by eSI and partner institutions in the future. This will be an important community building and outreach activity which will bring many members of the A+H community in contact with the eSI, and be an important legacy of the Theme.

Context and background

The Arts and Humanities have only recently begun to fully engage with the e-Infrastructure for advanced research, but the past two years have seen a number of crucial developments. In 2005, the AHRC and the e-Science Core programme announced funding for a series of workshops and demonstrators, and the AHRC also commissioned an extensive scoping survey of the use and uptake of e-Science by the Arts and Humanities, which was undertaken by the AHDS. In 2006, the AHRC, JISC and EPSRC announced a large call (1.8 million) for arts and humanities e-Science research grants and PhD studentships (the awards will be announced in April 2007). JISC have also funded the Arts and Humanities e-Science support centre (AHESCC), based at King's College London and directed by Sheila Anderson (AHDS) and Lorna Hughes (AHRC ICT Methods Network), to promote and support the use of e-Science in the Arts and Humanities.

AHESCC believe that a Theme on e-science in the Arts and Humanities eSI that will run from April 2007-April 2008 is extremely timely. It will enable A+H researchers who have been funded to work on e-Science to showcase some of this important new activity to the broader research community, but, more importantly, it will enable AHESCC to reflect on the ongoing activity, to think seriously and critically about the impact this work is having on the A+H research agenda, and to investigate new ways that the A+H can engage with the scientific community. This opportunity for reflection, analysis and engagement will afford us a unique opportunity to examine the emerging e-infrastructure and its potential impact on A+H research. As such, this e-science Theme will add considerable value to the A+H e-science projects that have been funded so far. Conclusions and deliverables from this Theme will also assist funders, including the AHRC, in the future development of an arts and humanities e-Science research agenda.

Deliverables

Deliverables from this Theme will include a series of reports, publications (including journal articles) and consultation papers that outline the emerging research agenda and the strategic issues. There is a strong possibility that some of the activities outlined may also lead to the development of a volume in the Ashgate publication series "Digital Research in the Arts and Humanities" (managed by the AHRC ICT Methods Network). The training materials developed under this Theme can be maintained and re-purposed by the eSI.

We also hope that the development of this series of high-profile events at the eSI around the topics described above will also help to build the profile of e-Science in the arts and humanities, and encourage greater involvement of the arts and humanities disciplines in the emerging e-Infrastructure, and also promote a greater understanding of the emerging interdisciplinary research opportunities.

Theme leaders

The Theme will be led by the co-directors and staff of AHESSC: Sheila Anderson, Lorna Hughes, Tobias Blanke and Stuart Dunn.

Structure of the Theme

We propose to run a series of multi-format events (lectures, workshops and training activities) that will present several examples of the advanced grid-based research that is being carried out by (for example) historians, linguists, performers, classicists, art historians and archaeologists. Through these case studies, we will demonstrate ways in which the enabling e-Infrastructure - tools, technologies, computing power etc. – is supporting advanced research that would have been otherwise impossible. This series of events will illustrate the "added value" to A+H research that can be achieved through the development and deployment of the networked infrastructure, and the emergence of a culture through which resources – be they processing power, data, expertise, or person power – can be shared in a secure environment. This environment allows new forms of collaboration to emerge, and new and advanced methodologies to be explored. However, as A+H researchers are working in new and unanticipated ways, an emerging research agenda is developing which is yet to be fully articulated. We hope that these events will contribute to building the evidence base for this research agenda.

Another important aspect of these events is that we hope to ensure the fullest participation from the scientific community in this Theme, and we will involve members of the eSI, the AHRC e-Science Steering Committee, and other key stakeholders in building links to the scientific community.

Programme of events

All events would be organized by AHESSC, in close collaboration with NESC/eSI. All events would take place at the e-Science Institute in Edinburgh. All speakers have indicated their willingness to participate.

April, 2007

1. Inaugural Lecture: Sheila Anderson, Co-Director AHESSC, "e-Science in the Arts and Humanities: Scoping the Community, Identifying the Research Agenda"

May-June 2007

2. A series of lectures showcasing the Arts and Humanities E-Science Workshop and Demonstrator projects, funded by the AHRC and the e-Science core programme:

Professor PF Ainsworth University of Sheffield
Virtual Vellum: Online Viewing Environment for the Grid and Live Audiences

Dr CV Crowther University of Oxford
A Virtual Workspace for the Study of Ancient Documents

Dr SJ Norman University of Newcastle
Motion Capture Data Services for Multiple User Categories

Professor Alan Bowman University of Oxford
User Requirements Gathering for the Humanities

eSI Theme application

4 workgroups on topics related to arts and Humanities e-Science, in partnership with research project PIs. These will be focussed on specific technologies and/or strategic issues, based around intensive discussions with practitioners. These will lead to the development of a series of consultation documents with recommendations for future development of the tools and topics described:

- a. Spatial and temporal exploration and representation
- b. Tools for knowledge mining and organization
- c. Tools for interpretation: automated tagging: highlighting, and annotation of digital resources
- c. Tools for collaborative research

7. April 2008

Closing Lecture: Lorna Hughes, co-Director AHESCC:

"The future of e-science in the Arts and Humanities: the emerging strategic agenda".

8. Proposed budget

Theme leader buy-out	£0
TL travel to Edinburgh	£5,000
TL travel while at Edinburgh	£5,000
Budget for lectures (speakers costs, 13@500, 3 international at 1000)	£9,500
Budget for training sessions (6 @ 4000)	£18,000
Budget for Workgroups (4 @ 3000)	£12,000
Budget for International Expert Seminar	£5,000
Production of posters/advertising/publications (including copy-editing)	£5,000
Total	£59,500