Working collaboratively with PhD and Early Career Researchers: agents for change

**Project key aims and activity**

- Working to build good research data management practices across all disciplines throughout the data lifecycle, focusing on cultural change and embedding activity
- Implementation of a formal Research Data Management Policy with associated one-stop-shop guidance and desk-side support for Data Management Planning
- Developing formal and informal support for research data management
- Evolve technical improvements to institutional systems to enhance management, storage and accessibility

**Case studies: Imaging exemplar**

Supporting PhD and Early Career Researchers to investigate 2D and 3D imaging requirements across disciplines

“...The Datapool 3D and 2D Raster case studies represent a chance to find out how specific kinds of data are created, used and managed across a large institution such as the University of Southampton. The Datapool project recognises that effective data management policy stems not only from ensuring the efficient use of facilities but also from developing deep understandings of how we work and the role which data plays in our research. This aspect of the project aims to survey facilities and resources dedicated to working of these 3D and 2D raster data and to find out how these resources are used. Through making contact and interviewing individuals and groups we are developing better understandings of how different communities work and collaborate and manage their use of digital media.” Gareth Beale, PhD Researcher and Hembo Pagi, Research Assistant and Technician

**Multidisciplinary**

Working with events through the existing network of University Strategic Research Groups which focus on multidisciplinary approaches to tackling leading edge societal issues, including the Southampton Multidisciplinary Research Forum for Early Career Researchers

For example, new beta institutional Twitter Harvesting Eprints service, workshop hosted by DataPool and the Web Science DTC, reported on Digital Economy USRG blog

**Training model**

Developing training for PhD students with a Service/PhD student co-delivery model for Faculties and an organic model of exploring issues with the Web Science Doctoral Training Centre through their seminar series and spin-out activities

**Training Materials**

Case study based training guide

“We looked at five researchers’ work from medicine, materials engineering, aerodynamics, chemistry and archaeology, and produced case studies showing the similarities and differences between the data types they produce. A guide for first year postgraduate students was created containing the case studies and an introduction to research data management. The concepts in the guide has been presented as training lectures, ensuring students start considering the problems associated with research data management early in their careers. The feedback from students suggest that being made to think about these issues is necessary and useful, and engaging them at this stage helps cultivate good practices.” Mark Scott, PhD Researcher

**Embedding and working with other data management developments to aid support for all disciplines: exemplar**

“The Heterogeneous Data Centre (HDC) project (JISC funded, Materials Data Centre) is delivering a system to encourage sharing of data sets between materials engineering and medical communities. It was built for managing materials engineering data ranging from small files (kilobytes) to very large (gigabytes, for example, microfocus computer tomography data), using a file system for file storage and a monitoring service to update a metadata database when data sets change. An interface for managing additional data set features has been written in Microsoft SharePoint. The system supports data sets, data set metadata, relationships and collections of data sets, security (to grant others access to a data set), plugins at the data set level, search, data set recommendations, and compatibility with Eprints - the main data catalogue being developed through the DataPool project. The generic approach we have adopted is enabling us to use it in a wider range of application areas such as Medicine.” Mark Scott, PhD Researcher

**Future**

Embed digital data experts in disciplines as nodes for multidisciplinary knowledge transfer

Agents for change - Informing and piloting new developments, developing new case studies

**Technical development**

A group of PhD researchers from Music, Physics, Medicine, Geography and Archaeology engaged with user testing for data deposit and management. First test was the SharePoint development with a mixture of structured feedback through a template and informal iteration and mapping to their research questions. Lots of discussion and lunch!

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References: Scott, M., Boardman, R., Reed, P., & Cox, S. (2012) Introducing Research Data: Faculty of Engineering and the Environment, University of Southampton (http://eprints.soton.ac.uk/338816/)

http://www.portusproject.org

http://digitaleconomy.soton.ac.uk

http://www.southampton.ac.uk/library/research/researchdata

http:// datapool.soton.ac.uk/

http://www.birminghamresearchexcellence.org

Fig. 1: Technical development - a group of PhD researches from various disciplines...

Fig. 5 & 6: Case studies: Imaging exemplar – Supporting PhD and Early Career Researchers to investigate 2D and 3D imaging requirements across disciplines...