



MANAGING PRIMARY RESEARCH DATA AND RECORDS FOR RESEARCH IN HE INSTITUTIONS

EXECUTIVE SUMMARY

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This JISC funded project was undertaken by the School of Informatics, Northumbria University, from May to October 2003. It studied the management of research records, comprising records of the process and its management, the outcomes or products as well as the primary and analysed research data, in one higher education institution (HEI). A particular emphasis was on electronic records. The aims were to:

- explore the practical implementation of the generic guidelines for managing the records of the research function from JISC's revised lifecycle study
- discuss and document the issues arising from this exploration and any solutions/strategies for addressing those issues
- share the results widely within the HEI research community and beyond

Though the project data are not a representative sample of research conducted in the UK, Northumbria University has the characteristics of any UK university and the findings should be scalable and broadly applicable to the HE sector.

The project involved the different stakeholders in the research community, i.e. researchers, research directors, IT/systems staff, and administrators, some of whom were part of an Advisory Panel. It comprised a nested case study. The School of Informatics provided a case study exploring the practical issues of implementing the JISC guidelines and the project itself formed a small case study. Data comprised transcripts of Advisory Panel meetings and stakeholder interviews plus the project team's reflections on their management of records generated from this project.

The results highlighted the complexity of the research function and the difficulty of mapping the activities in any simplistic way. Project data were analysed and presented in the form of four maps.

Map 1 presents the emergent issues and the views of each stakeholder group on each issue. The 11 issues were (in alphabetical order): confidentiality; digital records; joining up; primary research data; resources; retention management; re-use/re-purposing; roles/responsibilities; security; sharing/use; systems (both processes/procedures and IT systems). These issues were ranked by the stakeholders in terms of importance from their viewpoint. Confidentiality and security were the most important issues with digital records and re-use/re-purposing low on the list.

Map 2 shows the issues and the solutions suggested by the subjects. Four solutions were suggested: guidelines/standards/policy; training; systems; resources.

Map 3 shows the retention plans for this project's records mapped against JISC's retention schedule for the research function. The practicalities of using JISC's schedule comprise minor amendments to improve its clarity and the need to develop 'real world' procedures. E-mail records and the primary research data were particularly challenging for retention.

Map 4 shows current records management practice related to the continuum model.

Whilst the solutions could be addressed in isolation, if the management of research records, including retention, is to become embedded in the activities of an HEI then an implementation framework is required. A suggested framework comprises:

- Principles underlying the overall goal, i.e. the integrity, continuity, resilience, reliability and long term usability of the data; the confidentiality of the subject; rights of access; optimal use of the resource

- Secondary principles covering the context and practice of implementation, i.e. simplicity; transparency; inclusivity; subsidiarity; flexibility; cost-effectiveness.
- Risk management, ownership and championing, integration with other institutional strategies.

Whilst the continuum model was not utilised in great detail, it was helpful to use the four dimensions to discuss and agree the team's approach to managing the project's records. At that level, the concepts were understandable to both the records professional and non-records professional alike.

A major concern of the subjects, particularly the researchers, was the confidentiality and security of research data.

Another set of concerns addressed issues of retention management, sharing / use, joining up and resources, related to the full range of stakeholders across an HEI who need to use the records for multiple purposes. A virtual records centre would assist in this retention / sharing / joining up task. This would be a living resource, available 24/7 and from all geographical locations. Such a facility would release dependency on paper and fully exploit the potential of the digital environment. If it also contained research outputs, it would become an important learning resource. The facility would need to accommodate all stakeholder requirements.

Concerns about roles and responsibilities for managing records and related institutional processes, procedures and systems could be addressed by guidelines, standards and policy and training, which would also help with concerns about confidentiality.

Concerns about digital records covered topics of incompatibility, integrity, continuity, resilience and preservation. These concerns could be addressed by the roll out of appropriate and adequate technology and guidelines and training to enable people to make better use of this technology for records management tasks. This would increase people's trust in systems and decrease their dependency on paper. One factor in decreasing dependency on paper would be the use of e-signatures.

Concern about 'systems' covered the need for integrated systems to support the efficient use of data for multiple purposes and the customisation for multiple requirements of institution-wide systems such as finance systems.

An important topic under the issue of re-use / re-purposing is the future re-use of primary research data for further research activity by internal and external researchers, related to problems of maintaining the confidentiality of this data, logistics of re-use and storage. 'Semi-analysed / analysed' data, which is anonymised, is a practical and adequate surrogate for the 'raw' primary data for most research purposes. This research data could be stored in a virtual archive, a slim subset of the virtual records centre discussed above.

In summary, the project resulted in a number of practical lessons:

- records management guidelines and training, placed within an institutional framework of records management strategies and policies, are needed for all stakeholders and would be welcomed
- digital preservation can and needs to be tackled. The first task is to determine what research data needs to be archived for long term storage and re-purposing. One conclusion from this project is that 'semi-analysed / analysed' data, which is anonymised, is a practical and adequate surrogate for the 'raw' primary data for many research purposes. This reduces the size and nature of the digital preservation task as

it may not require new and expensive systems and what needs to be preserved is largely in common, well-known formats from widely used office and analysis software. However, even with this reduced task, the difficulties of long-term preservation of digital records, particularly those in proprietary formats, cannot be underestimated.

- the virtual records centre / archive is 'doable' and if it were to contain research outputs and management data would be a highly valuable learning tool for all stakeholders
- at the case study site, the undertaking of this research project has increased awareness of the need for good records management practice and digital preservation strategies for research amongst the stakeholders staff involved in the project.