
Rising to the research data management challenge

Andrew Cox
Senior Lecturer and Director of Learning and Teaching

Eddy Verbaan
Research Associate

Barbara Sen
*Senior Lecturer
Information School
University of Sheffield
a.m.cox@sheffield.ac.uk*

INTRODUCTION

A survey (Cox and Pinfield 2013) to which about half of UK higher education institutions responded in late 2012 suggested that, after a slow start compared to other countries (Corrall, Kennan and Afzal 2013), UK academic libraries are planning to get serious with research data management (RDM) in the next few years. According to the survey the top five future priorities were:

- 1 Policy
- 2 Advisory services
- 3 Early career researcher awareness;
PhD training
- 5 Data repository

It is still early days for what appears to be a very major undertaking, but it is an exciting opportunity to redefine library support to research.

The top priorities identified in the survey are just some of the range of activities that might be relevant for libraries to engage in (Corrall 2012; Cox, Verbaan and Sen 2012). At a strategic and policy level, there is the task of constructing an institutional policy. At the time of writing this article (December 2013) only about eighteen institutions had a policy in place. Teaching appropriate data-related literacies to principal investigators, early career researchers, PhD students and perhaps even taught students, is itself a major task. Advi-

sory services on RDM could target raising awareness of sources of data for reuse, guidance on data citation practices and copyright and licensing of data. Many institutions have undertaken surveys to discover what current data practices are in place and to explore attitudes to data sharing. Ultimately, building repositories, or at least catalogues, for research data will be a key area of activity for many institutions.

Some have suggested that we might see such activities as part of a wider shift in the nature of the library's role away from being about buying in content for internal communities and towards managing their institutions' own outputs, and making them visible to the wider world. If this process is happening, it does imply fundamental shifts in academic library identity.

RDM potentially touches many different library teams, including those responsible for research support, open access and repository management; it also includes liaison librarians, IT and also metadata specialists. Certainly supporting RDM will be about collaborations with other services, most obviously the central research administration team, because they support grant applications including data management planning and are heavily involved in research quality and training. Computer services, as responsible for data storage, security and aspects of training, are likely to be another stakeholder. Records managers have many of the relevant skills to contribute to RDM. Above all, of course, RDM will involve working closely with researchers, with their very different disciplinary communities and their very particular needs.

THE CHALLENGE

RDM is a challenging subject, partly because of the need to build up the relevant collaborations. Librarians will need to develop a real empathy with researchers, understand their passion about their data and develop an appreciation of the research process, but most LIS professionals do not necessarily have a personal knowledge of research; another difficulty is simply the lack of knowledge of the extent of the issues, since they relate to the work of every researcher in an institution, but disciplinary and sub-disciplinary differences make generalisations about data practices very hard. Equally, in many institutions an RDM infrastructure needs to be created from scratch, resourcing is unclear and we know there are many other pressing priorities and a wider squeeze on budgets.

Librarians have a lot of the relevant knowledge and skills to play a vital role, for example in metadata creation. But we may have to do some serious thinking to work out how these existing competences specifically apply to RDM. We know the relevance of our skills, but whether researchers see the library as the place to come to for support is unclear. Demand for a service is partly something we need to create ourselves. Because RDM is complicated and resourcing is unclear, librarians will have to work in creative ways to solve problems and be willing to take risks (Garritano and Carlson 2009). In the first instance, though, it's still really about many library staff taking their first steps into unfamiliar territory.

FINDING OUT ABOUT RDM

As part of getting up to speed, librarians will be making best use of professional networks to share good practice, but they will also be looking for learning materials to build up their own knowledge. Fortunately, key resources are beginning to emerge about how to do RDM. The Digital Curation Centre website is packed with useful information and tools, for example <http://www.dcc.ac.uk/>. Their *How to develop research data management services – a guide for HEIs* (Jones, S., Pryor, G. and White, A. March 2013) will be key reading for information professionals interested in the subject. Facet has recently published *Delivering research data management services* (Jones, Pryor and White 2013), which will complement the work edited by Pryor (2012), itself an invaluable reference point for those first getting into the topic.

One other valuable source of information we should like to bring to the attention of readers of Focus is RDMRose. This is a learning resource arising from a JISC-funded project that ran for a year (from July 2012 until June 2013), involving the White Rose Consortium of the libraries of Leeds, Sheffield and York and the Sheffield Information School. The partners collaborated to develop and use learning resources about RDM, tailored for information professionals. The main output of the project is an open educational resource of learning materials, guide notes, PowerPoints, activity sheets, reading lists and other resources such as audio recordings of interviews with researchers. It has been designed both for use in teaching and for self-directed CPD. Material can be used / reused in libraries' own training programmes. As the material will also be used on the Sheffield iSchool's courses it will be kept up to date. All the material can be accessed from <http://www.sheffield.ac.uk/is/research/projects/rdm-rose>.

REFERENCES

Corrall, S. 2012. Roles and responsibilities: libraries, librarians and data. In *Managing research data*. Ed. Pryor, G. London: Facet, pp. 105–33

Corrall, S., Kennan, M.A. and Afzal, W. 2013. Bibliometrics and research data management: Emerging trends in library research support services, *Library trends*, 61 (3), pp. 636–74

Cox, A. M., Verbaan E. and Sen B. 2012. Upskilling liaison librarians for research data management. *Ariadne* 70. Available at: <http://www.ariadne.ac.uk/issue70/cox-et-al> [accessed 10 November 2013]

Cox, A. M. and Pinfield, S. 2013. Research data management and libraries: current activities and future priorities, *Journal of library and information science* OnlineFirst doi:10.1177/0961000613492542

Garritano, J.R. and Carlson, J.R. 2009. A subject librarian's guide to collaborating on e-science projects, *Issues in science and technology librarianship*, Spring 2009, no. 57. Available at <http://www.istl.org/09-spring/refereed2.html> [accessed 10 November 2013]

Pryor, G. 2012. *Managing research data*. London: Facet

Jones, S., Pryor, G. and White, A. March 2013. *How to develop research data management services – a guide for HEIs*. DCC How-to Guides. Edinburgh: Digital Curation Centre. March 2013. Available at: <http://www.dcc.ac.uk/resources/how-guides> [accessed 10 November 2013]

Graham Pryor, Sarah Jones and Angus Whyte, eds. 2013. Delivering research data management services. *Fundamentals of good practice*. London: Facet