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Crossing That Bridge We Have Come to: Teaching Students How to Manage Qualitative Data. A Conversation with Professor Julie McLeod and Susan Childs about DATUM for Health and DATUM: Research Data Management at Northumbria University (UK)

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Whenever I think of Newcastle upon Tyne, I think of bridges. Located in the North East of England, the city of Newcastle and the town of Gateshead lie alongside the banks of the River Tyne. From their quays one is presented with stunning views of seven bridges, collectively representing a mosaic of three centuries, a modern and historical harmonization. A few of the bridges are quite acrobatic—one has agile pistons to flip it upside down and another is able to swing 90° to allow ships to pass. These arteries pump endless streams of people, automobiles, trains and Metro cars throughout the historic Tyne and Wear region. Newcastle was once well known for its industrial past, but today the city is well known for its universities. Northumbria University and Newcastle University have played major roles in developing the region as a major center in the areas of research and higher education, culture, arts and architecture, medicine and health care, and science and technology to name a few. These educational institutions are also bridges because they are the conduits for importing and exporting ideas and innovations, connecting the region’s inhabitants with students and scholars from across the globe. It was these physical and metaphorical bridges that had brought me back this year to the city of Newcastle and on to the campus of Northumbria University on a quest for knowledge. I had come to learn how librarians and libraries can be bridges for students and researchers to connect with resources to support the management and sharing of their research data.

My journey to Northumbria University had begun here at home in Massachusetts when my colleagues and I were working on gathering materials to support a research data management (RDM) course. Our library, the Lamar Soutter Library of the University of Massachusetts Medical School, National Network of Libraries of Medicine New England Region (NN/LM NER) and Simmons College Graduate School of Library and Information Science had partnered last fall to offer a spring semester course, Scientific Data Management, to teach Information students and working professionals about managing research data. My library’s director, Dr. Elaine Martin, my colleague Donna Kafel, and I had planned the course around the UMMS/WPI teaching cases. These cases confront course participants with a wide range of authentic and varied RDM challenges found throughout the research and data lifecycles.

We needed to gather materials and activities to support the course participants’ analyses of our teaching cases. Among the teaching cases there is one qualitative study: Improving End-of-Life-Care for African Americans. I had gone searching online
for a suitable guidance for managing qualitative data, and serendipitously I came upon a publicly available set of training materials produced by a team of researchers led by Professor Julie McLeod at Northumbria University called Datum for Health. A JISC-funded project, Datum for Health was originally developed in 2011 as a research data management training program for postgraduate students in the Health Studies and Health-related disciplines, but it has since become a series of training workshops available to any interested postgraduate student during his or her induction period.

Julie McLeod and her colleagues Susan Childs and Elizabeth Lomas have also published a must-read chapter on research data management in Alison Jane Pickard’s second edition of Research Methods in Information published by Facet. Collectively, their Datum: Research Data Management training materials and their chapter that integrates learning best practices for research data management as a part of learning research methods have had a significant and measurably positive impact on the development of our curriculum, and they were the resources we chose to support our course participants’ successful analyses of their assigned qualitative research teaching case.

On a recent visit to Newcastle I stopped by Northumbria University, whose logo fittingly recalls the arc of the Gateshead Millennium Bridge, and sat down with Julie and Susan to learn as much as I could about their experiences developing the DATUM: Research Data Management programs, to get their advice on teaching research data management, and to get their advice for librarians interested in teaching research data management. Below are the major takeaways that Julie and Susan shared with me in our conversation that will be very useful for any librarian interested in getting involved with teaching RDM at his or her institution.

**What is unique about managing qualitative research data?**

- Unstructured qualitative research data can be as difficult, or even more difficult to handle, as quantitative datasets, which already have well-developed and established management systems in place.

- For institutions lacking an electronic documents and records management system, there are no obvious places to manage and store qualitative data.

- Qualitative data need a contextual background to be understood. The data must have associated documents or records to accompany these data, and there are risks that must be managed so that the data and their accompanying documents are not split up.
• Understanding the role of appraisal is important. Julie and Susan found that their course participants discovered it was very useful to understand what data and documents they needed to keep and protect their own selves, and that they needed to be aware of the ethical, consent, and potential rights-related issues associated with their qualitative research. They emphasized managing during the project and the importance of knowing how to dispose of the data they did not need appropriately, safely, and securely at the end.

**How do you get postgraduate students to understand the importance of RDM?**

• Julie and Susan emphasized to their course participants that managing the data while they are doing the research is a benefit in itself. If they are required to manage or retain certain documents by funding bodies, and these have been managed well during the project, then it is relatively easy to produce any required documentation and their data if requested to do so; everything that would have been required of them to have done will have already been done.

• RDM is an integral part of the research process. This was a driving factor for them to publish their chapter on research data management in *Research Methods in Information*. It is just as important as learning how to design consent forms or learning how to collect and analyze data; RDM is knowledge and skills they will be able to use over the course of their careers if they go on to do research: knowing how to manage research data well is knowing how to conduct good research.

• Just filling out a funding body's data management plan is not enough; the data management plan is a living document during the entire research process. Not only can it serve them as a guide for managing and curating their data, it can also be amended or added to as the researcher encounters unforeseen issues.

**What are some data management issues to highlight for researchers in Health-related disciplines?**

• Health-related research is associated with many ethical issues; for example, the ethical approval process, informed consent and protecting confidentiality raise many data management issues. Julie and Susan caution that these may not be unique to just these disciplines, but are prominent and of high concern to them. They teach their students that the ethical process requires data management to be assured that a researcher has met mandated standards, obtained ethical approvals, and that he or she has maintained the records of these approvals properly.
Instructors teaching research data management will find that by using case studies they can achieve more discipline-specific tailoring for homogenous groups. Julie and Susan shared a very helpful way of thinking about how to confront the oft-asked question in RDM teaching circles: does RDM instruction need to be discipline-specific? They estimate that 20% of teaching RDM can be tailored to emphasize a select few RDM issues for an audience from a specific discipline, but the other 80% is generic--it is what constitutes good RDM practice and it applies to all disciplines.

Julie and Susan cautioned that there are some qualitative researchers that feel it is not appropriate for them to share their data, such as researchers conducting Participatory and Community-Based Research—not for confidentiality purposes but because of their epistemology: their world view about the methodology and the context in which the research was conducted. In Participatory Research the community members formulate the research question, participate in the collection of data, and the analysis and presentation. Thus these researchers feel that without these communities' participation, any reanalysis of their data would be invalid, and if these data were to be made available, then there would be a real danger that they would be misinterpreted by someone else not involved in the project.

What advice do you have for librarians that want to get involved with teaching research data management?

In order to teach research data management well a librarian will need to have a good understanding of research methods and what constitutes good practice. Susan embeds RDM as a formative exercise in her research methods courses and her lectures for LIS students.

For more information on Julie, Susan and colleagues’ research on managing research data or to locate and purchase a copy of Research Methods in Information please visit the following links:


DATUM: Research Data Management at Northumbria University