Research Know-How for Research Support Services: Preparing Information Specialists for Emerging Roles

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ABSTRACT

The panel will discuss the importance of understanding the research environment for providing effective information and technology support to researchers, and the implications for curricula in professional education. Our specific context is growing involvement of academic libraries and information services in managing research data, but the issues raised have wider implications for educating and developing other information specialists (e.g., in research institutes, government agencies, public libraries). Studies in the past five years have identified technical and discipline-related skills and knowledge gaps as potential constraints on developing library research data services. Our recent research in Australia, New Zealand, the UK, and Ireland confirmed the need for data curation and technology skills, but also found practitioners engaging in other forms of research support, and expressing needs for a multilayered introduction to the research environment, extending beyond the research skills typically gained in masters programs, including subjects such as academic culture and practice, and research policy and evaluation. The panelists represent a mix of academic and practitioner viewpoints from different countries. They will each offer their views on what is missing and should be added to graduate curricula, and how programs can make space, asking the audience to respond with their own suggestions, counter-arguments, and alternative visions, using an interactive style from the start.

Keywords

Academic libraries, curriculum development, data management, information services, professional education, research support.

INTRODUCTION

Political, economic, and technological developments in the past decade have renewed interest globally in the role of libraries and librarians in supporting research (Auckland, 2012; Bourg, Coleman, & Erway, 2009; MacColl & Jubb, 2011; Webb, Gannon-Leary & Bent, 2007). The most frequently discussed area is the curation and management of data from e-research (Garritano & Carlson, 2009; Henty, 2008; Hey & Hey, 2006; Lewis, 2010; Lyon, 2012; Salo, 2010a; Soehner, Steeves & Ward, 2010; Tenopir, Birch & Allard, 2012; Tenopir, Sandusky, Allard & Birch, 2013), but libraries are also raising their profile with involvement in areas such as institutional repositories (Cassella & Morando, 2012; Horwood, Sullivan, Young & Garner, 2004; Kennan & Kingsley, 2009; Salo, 2008), scholarly publishing (Adema & Schmidt, 2010; Crow et al., 2012; Hahn, 2008), and bibliometrics (Ball & Tunger, 2006; Drummond & Wartho, 2009; Hendrix, 2010).

A recurring theme of such discussions is the need to re-skill or up-skill the information workforce to provide higher-end research support (Auckland, 2012; Henty, 2008; Lewis, 2010; Lyon, 2012; Tenopir et al, 2012). Funding from the Institute of Museum and Library Services has supported new modules, courses, specializations, and programs in the US to prepare practitioners for digital curation and data management (Harris-Pierce & Liu, 2012; Keralis, 2012), but developments in the UK and other countries have been slower (Cox, Verbaan & Sen, 2012; Pryor & Donnelly, 2009). Most reports of funded curriculum initiatives have concentrated on the technical aspects of data management, but some have also highlighted the need for practitioners to understand the research process and policy context (Cox et al., 2012). Others have called for more discussion among educators and practitioners to determine future curriculum content and presentation (Harris-Pierce & Liu, 2012; Lewis, 2010) Our own recent study of developments in library support for research in Australia, New Zealand, the UK and Ireland (Corrall, Kennan & Afzal, 2013) confirmed the need for technical knowledge and ICT skills development, but also pointed up significant needs in the areas of research processes, research methods, research workflows, and policy contexts (national and institutional agenda).

PROBLEM STATEMENT AND RESEARCH QUESTIONS

Academic libraries are responding to political, economic, and technological challenges in the research environment with service innovations in areas such as bibliometric support for research evaluation, and planning for the curation and management of digital research data. A survey of library practitioners in Australia, New Zealand, the UK, and Ireland found competency needs for delivering the desired services were broader and deeper than formerly acknowledged, including subjects that are not typically the focus of current curriculum initiatives, such as academic culture and practice, digital scholarship, education and research policy, intellectual property and licensing, and research assessment and evaluation, to provide a fuller understanding of the context for service development. Discussion representing the viewpoints of both academic educators and professional practitioners is needed to debate future directions for library and information science curricula to meet the needs identified. Insight gained from such a discussion can be used to inform the planning and design of both preparatory professional education programs and continuing professional development courses, and/or to suggest lines of inquiry for further investigation.

The central question is:

- What do library and information professionals need to know about research to provide effective support in the e-research environment, e.g., methodologies, policies, processes, workflows?

Related subsidiary questions include:

- What additional subjects must be included in graduate library and information science program curricula, e.g., as required or elective courses?

- What subjects or courses will be dropped to make space for the subjects identified?

- Should all library and information students undertake an empirical research project as preparation for research support roles?

- How can practitioners in the field get the research know-how required for effective support services?

KEY ISSUES FOR DISCUSSION

There is growing acknowledgment that students and practitioners in the library and information domain need education and training in technical aspects of digital data curation to enable research libraries to support institutional expectations in the area of research data management. Around one-third of ALA-accredited MLIS programs have offered a course on data curation within the last three years, of which almost half offered a concentration or specialization in the subject (Harris-Pierce & Liu, 2012). There has been less discussion about the background knowledge and understanding of the research arena needed to complement the technical skill sets already defined.

The first task here is to identify aspects of the research environment that should be part of the core knowledge base for information specialists in research support roles. The next issue is the breadth and depth of treatment required for the topics identified, to determine how many courses might be needed. A key question is whether graduates aiming for research support roles should carry out a small-scale project to gain fuller understanding of the process of research.

Another issue is whether the subject matter deemed essential for practitioners specializing in research support should be part of the core curriculum, or only offered as a specialist track or program. A final important matter for debate is how to enable practitioners already in the field to update their knowledge and skills in a way that fits the demands of their jobs and personal/financial circumstances.

The panel will work interactively to engage the audience throughout the session. The chair will put each specified question in turn first to the panel members (rotating the order in which they speak) and then to the audience, inviting participants to provide their own perspectives on the questions and responses, or offer counter-arguments and alternative proposals.

PANELISTS

The panel members will provide complementary and contrasting expert views on the questions for debate, drawing on their varied backgrounds and experiences.

Sheila Corrall

Sheila Corrall is Professor and Chair of the Library and Information Science Program at the University of Pittsburgh School of Information Sciences, where she teaches courses on research methods and academic libraries. She was formerly Head of the University of Sheffield iSchool, and served as director of library and information services at three universities in the UK. Her research interests focus on the evolving roles and competencies of library and information professionals, and their education, training, and development needs. Recent work includes a review of the roles and responsibilities of libraries and librarians in the research data arena (Corrall, 2012), an analysis of evolving academic library specialties (Cox & Corrall, in press), and a survey of research support services in academic libraries in Australia, New Zealand, the UK, and Ireland (Corrall et al., 2013). She serves on the editorial boards of *Education for Information, Information Research, International Journal of Digital Curation,* and *New Review of Academic Librarianship.* She also serves on the advisory panel of the JISC-funded RDMRose project, which is developing learning materials about research data management for liaison librarians in university libraries, both for the continuing professional development of practitioners and for embedding into graduate curricula. Corrall will introduce the panel, and chair the discussion, in addition to responding to the questions from the viewpoints of research, education, and practice in the US and the UK.

Mary Anne Kennan

Mary Anne Kennan is a Senior Lecturer in the School of Information Studies at Charles Sturt University, Australia, where she teaches courses on the digital environment, research data management and research methods. Her research interests build on her 2008 PhD, which focused on scholarly communication, institutional repositories, and open access, moving into the broader areas of e-research and research data management, including the practices of sharing and collaboration. Recent work includes the survey with Corrall of research support services in academic libraries in Australia, New Zealand, the UK, and Ireland (Corrall et al., 2013). Other recent projects have investigated the management and sharing of volunteer-collected data (Kennan, Williamson & Johanson, 2012) and the role of institutional mandates in promoting open access (Kennan, 2011). Her previous experience includes 25 years working in libraries and the information world, including serving as Director of the Frank Lowy Library at the Australian Graduate School of Management in Sydney. She has also taught at the University of New South Wales and the University of Technology Sydney. She is joint editor of *Australian Academic and Research Libraries* and serves on the editorial board of the *International Journal of Actor-Network Theory and Technological Innovation*. Kennan will respond to the questions from the viewpoints of research, education, and practice in Australia, drawing on her experience of online distance education for librarians.

Dorothea Salo

Dorothea Salo is a Faculty Associate in the School of Library & Information Studies at the University of Wisconsin-Madison, where she teaches courses on digital curation; digital trends, tools, and debates; libraries and publishing; organization of information; and research-data management for graduate students. She also works with libraries and librarians as an independent consultant, specializing in scholarly communication and data curation. Salo formerly worked as digital repository librarian and research services librarian at the University of Wisconsin, and as digital repository services librarian at George Mason University. Relevant publications include a review of the roles and responsibilities of libraries and librarians in institutional repository development (Salo, 2008), an examination intellectual property ownership in the e-research environment (Salo 2010b), and an analysis of the challenges facing libraries in adapting their technical infrastructures for research data management (Salo, 2010a). Salo will respond to the questions from the viewpoints of practice, training, teaching, and consultancy, drawing on her experience of working with researchers and students from different disciplinary backgrounds, in the US.

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