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Keywords

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Full-Length Paper**Grassroots Professional Development via the New England Research Data Management Roundtables**

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Abstract

Objectives: To meet the changing needs of our campuses, librarians responsible for research data services are often tasked with starting new endeavors with new populations without much support. This paper reports on a collaborative effort to build a community of practice of librarians tasked with addressing the research data needs of their campuses, describes how this effort was evaluated, and presents future opportunities.

Methods: In March 2015, three librarians found themselves in a situation of serendipitous professional development: one was seeking to provide a new method of mentorship, and two more were working on an event, hoping to broadcast it to a wider community. From these two disparate goals, the Research Data Management (RDM) Roundtables were created. The RDM Roundtables planning committee developed a low-cost professional development day divided into two parts: a morning session that detailed an idea or solution relevant to our practice, and an afternoon roundtable discussion on practical aspects of research data services. Evaluations from these events were coded in NVivo and we report on the common themes.

Results: Participants returned 61 evaluations from four events. Five themes emerged from the evaluations: learning, sharing, format, networking, and empathy.

Conclusion: The events provide a valuable professional development experience for attendees, and the authors hope that by providing a description of the events' development, others will establish their own local communities of practice.

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Keywords: Professional development, research data management, roundtable

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Introduction

Librarians' duties continue to transform to meet the needs of our faculty, students, and campus. One such transformation is the emergence of eScience and research data services — two topics not extensively covered in traditional library school curricula, but well aligned with the skills of librarians (e.g. Gold 2007; Martin 2016). Based on this combination of emerging need and optimal skill fit, eScience and research data services are being added to librarians' lists of responsibilities. In response to the growing need for an eScience skillset, coupled with a curiosity to see how other organizations are responding to data management demands, librarians in the New England region developed the Research Data Management (RDM) Roundtables to help improve the skills and network of this growing professional group.

This paper reports on the RDM Roundtables, a collaborative effort to build an education-focused Community of Practice (CoP) of librarians responsible for addressing the research data management needs of their campuses. RDM Roundtables are open and collegial, and they facilitate the development of a local network of data librarians. Their informal nature also affords a degree of honesty not normally encountered in the more formal confines of our day-to-day involvement, professional meetings, and conferences: a benefit articulated by RDM Roundtable participants.

Additionally, we explain the rationale for developing the RDM Roundtables, detail how they evolved, describe their evaluation, and present future opportunities for further developing this nascent community of practice. The professional development model demonstrated in this article will provide an approach for data management librarians in other geographic areas to cultivate their own regional communities of practice.

Literature Review

A 2006 article concluded that “the e-Science revolution will put libraries and repositories centre stage in the development of the next generation research infrastructure” (Hey and Hey 2006, p. 526). Eleven years later, academic libraries are increasingly involved in research data management and eScience services, including policy development and infrastructure building (Tenopir, Birch and Allard 2012; Tenopir et al. 2015; Tenopir et al. 2016). Libraries continue to add research data services to their suite of offerings, including: data management planning consultation; repository and archiving services; storage solutions; best practice and resource recommendations; and data management training and/or data literacy instruction (Flores et al. 2015; Si et al. 2015; Yoon and Schultz 2016; Cox, Kennan, Lyon and Pinfield 2017).

While some institutions are hiring dedicated and experienced staff to support these new services, many are reassigning staff to new roles, or adding responsibilities to existing roles (Tenopir, Birch and Allard 2012; Tenopir et al. 2015). For example, a survey of RDM Services in 2013 from 53 organizations saw that of 230 positions, RDM was added to 63% (146) of those positions, with new positions (22%, 49 positions) and substantial redesign (15%, 34 positions) accounting for the remainder (Fearon et al. 2013, p. 69). A 2014 survey that garnered 128 usable responses found that only 6.7% of libraries had a librarian dedicated to research data services; 61.1% reported that the responsibility fell to the subject/liaison librarians, 17.8% had other arrangements, and 14.4% had no one responsible for research data services (Tenopir et al. 2015, p. 7).

Furthermore, several authors have identified gaps in the skills required to provide data management and eScience support. Professional development is one way for librarians to

bridge this skills gap and build confidence in these emerging areas (Swan and Brown 2008; Auckland 2012; Bresnahan and Johnson 2013; Pinfield, Cox and Smith 2014; Cox, Kennan, Lyon and Pinfield 2017). In their chapter on education in *Aligning National Approaches to Digital Preservation*, Davidson, Corral, Coulbourne, and Rauber (2012) observe that “if education and professional development training in the library and information science sector do not evolve to cover data management and curation, there is a risk that librarians and other information specialists will not be able to contribute appropriately to the management of research data” (p. 276).

In response to these documented observations and trends, opportunities for continuing education and professional development in research data management have increased over the past several years. These include workshops sponsored by the Digital Curation Centre (<http://www.dcc.ac.uk/events/workshops>), training activities sponsored by DataONE (<https://www.dataone.org/training-activities>), and most recently the Association of College and Research Libraries (ACRL) *Building your Research Data Management Toolkit: Integrating RDM into Your Liaison Work* Roadshow (Riley 2015; <http://www.ala.org/acrl/rdmroadshow>). Free self-guided online tutorials are also available, including MANTRA Research Data Management Training (<http://datalib.edina.ac.uk/mantra>) for researchers and information professionals and Essentials 4 Data Support (<http://datasupport.researchdata.nl/en>) through 4tU.Centre for Research Data (Verbakel & Grootveld 2016). In addition, several projects have developed continuing education curricula designed for information professionals, most notably the JISC-funded project RDMRose (Cox, Verbaan and Sen 2012; <http://rdmrose.group.shef.ac.uk>) and New England Collaborative Data Management Curriculum (NECDMC) project funded by the National Library of Medicine (Kafel 2014; <http://library.umassmed.edu/necdmc>).

Other opportunities to improve data management skills and knowledge take the form of professional Communities of Practice. Communities of Practice (CoP) are defined as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger, McDermott and Snyder 2002, p. 4). Communities of Practice are social learning systems compelled by three elements: their domain, a shared common interest or activity; their community, a sense of belonging; and their practice, both explicit and tacit knowledge (Snyder and Wenger 2010, p. 110). They are self-selecting groups whose purpose is the development and exchange of knowledge and skills (Wenger and Snyder 2000).

For example, several research data interest groups or initiatives have formed in library professional associations such as Association of College and Research Libraries (ACRL), Association of Research Libraries (ARL), and Medical Library Association (MLA), or data professional associations such as Research Data Alliance, and Research Data Access and Preservation (RDAP) sponsored by the Association for Information Science and Technology (ASIS&T). The recently launched IMLS-funded project DataQ (<http://researchdataq.org>) provides a platform for the community to ask questions and receive answers. More informally, the Datacure mailing list provides “a safe space for data professionals to talk frankly about their ideas, projects, successes, and struggles with their work” (Datacure n.d.). It is within this arena of support for communities of practice that the RDM Roundtables have emerged as a unique professional development opportunity.

The RDM Roundtable Events

The origin of the RDM Roundtables came serendipitously from three people: Carolyn Mills from

the University of Connecticut, Thea Atwood from the University of Massachusetts, Amherst, and Tom Hohenstein from Boston University. In the summer of 2015, Mills was looking for a way to provide a new source of professional development, and Atwood and Hohenstein were developing an event and trying to broaden community involvement. Mills, Atwood, and Hohenstein connected with Donna Kafel, formerly the eScience Coordinator at the University of Massachusetts Medical Center, and Sally Wyman, a data librarian from Boston College, to coordinate, develop, and promote the first event. The group worked to generate a list of ideas for topics, establish ground rules for discussion and conduct, outline the structure for the RDM Roundtables, construct desired outcomes, determine logistics for how to accomplish the event, and laid the groundwork for future events.

RDM Roundtables were developed as a low-cost professional development day. All of the RDM Roundtables were paired with a morning activity of general interest to our audience, and addressed some idea or solution relevant to our practice. The roundtable discussions convened in the afternoon and consisted of facilitated conversations on a topic related to practical aspects of research data services. As of November 2016, there have been four RDM Roundtable events. Table 1 briefly details the events thus far.

While each event focused on different topics of interest, all followed a similar planning process with similar goals. A vital component of the planning process has been to keep the events low cost, accessible, and relevant to the community. With the support and generosity of our hosting institutions, all RDM Roundtable events have been free to attend, with an occasional fee for parking. To help keep costs down, lunch is not provided as part of the day, although an extended break between the morning and afternoon sessions is built in for participants to explore local dining options.

All planning meetings occurred remotely. For meetings, the committee used a conference call bridge; used Google Docs to take minutes, draft documents, and for registration; and created a LibGuide to host more information on each event. In addition, a set of established roles and responsibilities facilitated the execution of each event. Specifically, each member of the planning committee assumed one of the following roles:

- **Publicity:** Creates and sends event save-the-date, event flyer, and email reminders.
- **Registration:** Updates registration form, compiles names and contact information of attendees, coordinates carpooling.
- **Logistics:** Ensures photocopies of materials are provided, event details are available, evaluations are completed, and timing of the event is solidified.
- **Objectives and final discussion questions:** Ensures that committee has finalized learning objectives and roundtable questions.
- **Evaluations:** Updates evaluation form, encourages participants to complete forms.
- **Host for the event (or “institutional liaison”):** While often not a member of the planning committee, someone from the planning committee is responsible for communicating with the institutional liaison and with invited speakers.
- **Event moderator:** Master of ceremony and official timekeeper for roundtables, irons out details for the day of the event, including timing.

Table 1: Date, location, topic information, event announcements, and synopsis postings related to events held as of this writing.

Date	Location		Topic	Event announcement	Event write-up
2015 August 18	am	Massachusetts Green High Performance Computing Center	Solutions beyond campus walls; Tour of MGHPCC	Two Research Data Events for New England Librarians on August 18th	Notes from the first New England RDM Roundtable Discussion
	pm	Roundtable 1 University of Massachusetts Amherst	Organizational structures, collaborators, and support for RDM		
2015 November 20	am	University of Massachusetts Medical School	Tools for data support	Registration now open for Data Tools Forum and NE RDM Roundtable Event	Notes from the November New England RDM Roundtable Discussion
	pm	Roundtable 2 University of Massachusetts Medical School	Engaging faculty and students		
2016 June 08	am	Boston College	Open Science Framework demonstration	Two Upcoming eScience Events: Open Science Framework & RDM Roundtables	Notes from the June New England RDM Roundtable Discussion
	pm	Roundtable 3 Boston College	RDM instruction and leading workshops		
2016 November 15	am	University of New Hampshire	Data visualization; Tour of UNH's Data Visualization Research Lab	Upcoming eScience Events: UNH VisLab & RDM Roundtables	Notes from the November 2016 New England RDM Roundtable Discussion
	pm	Roundtable 4 University of New Hampshire	Event planning and outreach		

Before the Event

Each planning process began with a conference call to discuss the next event, occurring approximately three months before the next target event date. At this stage, the planning committee worked to balance the main theme or topic of the event with what locations and dates were available. The planning committee largely used the suggestions from previous RDM Roundtable evaluations to help determine the next topics of discussion for the day. Limiting factors in topic selection included feasibility and logistics — sessions that require more in-depth training (e.g., deep understanding of R) are not necessarily appropriate for a one-day event. The selected topic, in turn, played a large role in determining location. For example, in previous evaluations, participants had voiced a desire to see tools that researchers may use in their work. In response, the Planning Committee decided to host a demonstration of the Open

Science Framework. In working with our speaker from the Charlottesville, Virginia-based Center for Open Science, we found that we would only be able to host our event, and keep to the three-month planning window, if it were located in the Boston area. Based on these criteria, former Planning Committee member Sally Wyman at Boston College agreed to host the event. Another topic requested by participants was data visualization. In this instance, the Planning Committee pursued a tour of the University of New Hampshire's Data Visualization Research Lab (<http://ccom.unh.edu/vislab>) — selected for its state-of-the-art visualization facilities — and invited two speakers to discuss methods of collaborating with data visualization services on our campuses.

After selection of the location and topic, the institutional liaison was free to choose a date that works within their academic calendar — typically between two to three months from the initial call. The individual in the institutional liaison role is also responsible for selecting the event space, which must be accessible, of an appropriate size, and have the appropriate technologies available. Generally, a successful event space would accommodate at least 35 people, provide tables that can seat groups of six or more, and offer a projector. These requirements were often not difficult to meet, allowing the planning committee some flexibility in finding a location suitable for the goals of the event.

Following finalization of the topic, date, morning event, and location, the afternoon session would begin to coalesce. The planning committee identified two subtopics that addressed the main theme selected for the event, then selected five to six questions per subtopic to help guide the discussion, with a focus on the challenges, successes, or areas of improvement in our practice. By selecting open-ended questions, the hope was that discussion would be an open exchange of ideas and experiences. Questions used for each RDM Roundtable event as of this writing are detailed in Appendix A. Along with the discussion questions, the planning committee developed a series of learning objectives for the day, enumerated in Appendix B. Both Appendix A and Appendix B are available as Supplemental Content at <https://doi.org/10.7191/jeslib.2017.1111> under “Additional Files”. Participants received the objectives at the event, which helped to set proper expectations, and aligns with best practice for educational endeavors. The team also developed evaluations to capture feedback about the event, which provided a method to develop meaningful future events that reflect the needs of the community.

The planning committee completed much of its work asynchronously using Google Docs, where each planning member completed tasks based on their assigned duties. As the date of the event neared, the planning committee member responsible for registration sent confirmation emails with details about parking and transportation. Additionally, registrants indicated if they were interested in carpooling, and interested parties received an email to facilitate those efforts. In the week prior to the event, the planning committee confirmed all details and speakers. The planning committee member in charge of logistics printed out all materials, including the questions for the day and the event outcomes, and the planning committee member in charge of publicity sent out a final reminder email to participants.

During the Event

The day of the RDM Roundtables varied based on the morning event. The morning event was often an opportunity to welcome participants to the area, and highlight special features of the campus or site. The Planning Committee worked to ensure the morning progressed smoothly and in a timely fashion, but were generally there as participants — each event was an opportunity to engage with new ideas and network with peers, colleagues, and partners.

After the morning event and lunch, the planning committee began the RDM Roundtables by detailing what to expect. The ground rules of the event were covered, timetables laid out (and strictly adhered to with the assistance of the event timekeeper), and expectations explained. By beginning each session with a reminder of the ground rules, we hoped to establish a shared understanding of expectations, and bring mindfulness and inclusiveness to the fore. The ground rules were:

Expect to both give and get information - contribute in both ways.

Allow all to talk; do not dominate the conversation.

Bring materials that you are willing to share, related to the topics.

Ask permission to use materials provided at the event by others.

Keep sensitive information divulged at the event confidential.

The total number of participants at a RDM Roundtable was limited to no more than 30 (plus the planning committee) to keep the gathering relatively intimate and manageable. Five to six participants sat at a table, and a planning team moderator joined each group to help guide the conversation through the pre-selected questions, keep conversations on topic, and ensure that the ground rules were followed.

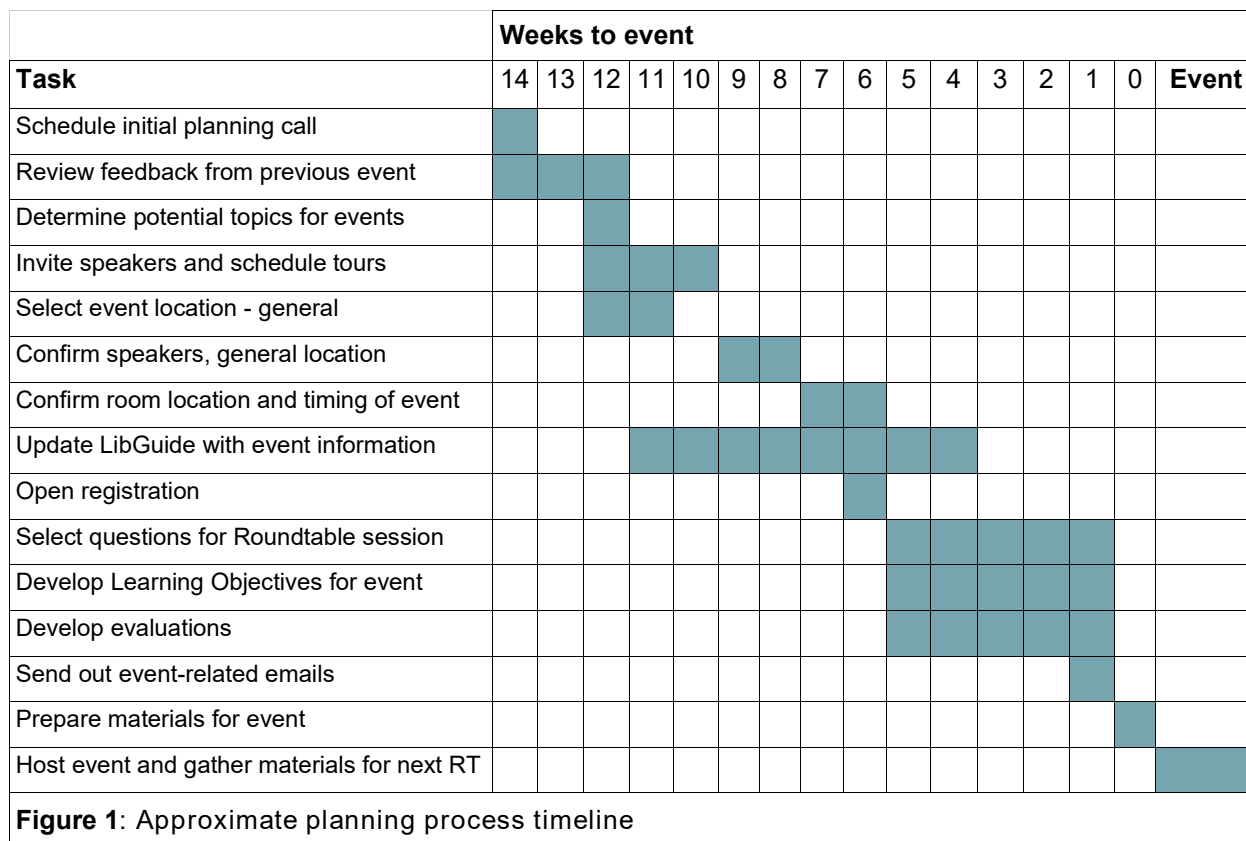
The main theme of the gathering was divided into two subtopics. For each of the subtopics, groups had 30-45 minutes to work through the set of questions prepared by the planning committee. Each table tackled the same set of questions and a volunteer scribe took notes on the discussion. Each table had one moderator to help facilitate the conversation amongst their peers. The moderators ensured that all participants had an opportunity to speak, and generally helped move the conversation along. At the end of a subtopic, the tables reported out to the larger group, briefly noting the major points of their discussions before rotating groups and moving on to the next subtopic.

To wrap up the event, the RDM Roundtable planning committee collected the notes from each table, encouraged participants to fill out evaluation forms, thanked the participants for lively and inspiring discussion, and ended the day.

After the Event

Using the notes collected from the RDM Roundtables, a planning team member composed an anonymized synopsis of the event, and posted the report to the eScience Community Blog. Sharing synopses facilitated reporting out to the community, and provided information to those unable to attend events.

After the event, the planning committee scheduled a post-mortem call in which the planning team debriefed about what went well and areas for improvement, and reviewed the participant evaluations. The call was also an opportunity to schedule the next meeting. After a few weeks, the planning committee initiated the next call, and the process repeated for the new event. Figure 1 demonstrates how the planning process unfolded, from start to finish.



Evaluations

The planning committee developed evaluation forms as part of the planning process. Evaluations captured information about each Roundtable, its effectiveness, issues or challenges about the day, and suggestions for future topics and locations. In general, the RDM Roundtables were well received by attendees. The greatest benefit came from the open-ended evaluation questions. These questions provided insight into the challenges librarians responsible for data services face, and participants articulated reasons why they found the events successful.

From the four RDM Roundtable events, 113 attendees returned 61 surveys. In order to provide a meaningful commentary on the completed evaluations, author Patricia Condon coded the responses in NVivo qualitative data analysis software. The purpose of the coding exercise was to summarize and cluster the responses into consumable themes on which we could report. NVivo provides a platform that facilitated the coding process and improved the ability to systematically manage and organize textual data. Condon assigned codes (words or phrases that capture an interpretation of the content) to the responses on the evaluations. Because the evaluations consisted of open-ended questions, multiple codes may have been applied to one participant’s written response, resulting in more codes than respondents. She then aggregated and refined the codes into general categories to identify broad themes and patterns that emerged from the feedback on the evaluations. The other authors reviewed the final coding categories for consistency and neutrality. To maintain anonymity of responses, no feedback is quoted verbatim. Instead, all feedback is presented under a general umbrella.

From the event evaluations, five themes emerged that related to why the RDM Roundtables are of use to participants. These themes, ranked from most cited to least cited, were: learning, sharing, networking, format, and empathy.

Learning

Twenty-three respondents cited learning as a benefit of participating. Feedback was categorized as “learning” when the participant commented on absorbing new content or ideas. This might also be considered a situation where one participant was teaching another participant about a technique, idea, or method of implementing a service or describing experiences or services at another institution.

Sharing

Twenty-two respondents cited sharing as a benefit of participating in the RDM Roundtables. Feedback was categorized in the “sharing” category when it seemed a participant was focused more on the two-way discussion — that is, participants were sharing their experiences as a way to exchange information with others, not necessarily *teaching* others about a new technique or idea. This theme is similar to Learning, but Learning connotes more of a one-way exchange of information.

Three subcategories emerged from the sharing theme: sharing examples (11) included comments about exchanging materials for others to use; sharing ideas or experiences (8) for comments that use the verb *to share* or that indicate an exchange of information; and sharing different perspectives (3).

Sharing reinforces one of the key reasons we first established the RDM Roundtables: Librarians engaged in data services are often on their own, with little structured institutional support, and may only be able to devote part of their time to data work. Sharing is a critical component to one’s growth in the field, and helps one to better articulate their successes and challenges.

Networking

Networking is an important draw for all community events. Twelve respondents reported that networking, or meeting, interacting, and connecting with colleagues, was one of the most useful components of the RDM Roundtables.

Previous research articulates the benefits of developing networks, both as a necessity for success and as a method to further deepen and develop careers (Ansmann et al. 2014). This need may be especially true in academia, where learning and development are not necessarily linear, and no single mentor could guide all aspects of the increasingly complex careers of academics (de Janasz and Sullivan, 2004). Networking helps to broaden participants’ pool of colleagues, their ability to learn and grow, and is an important facet of professional development.

Format

Roundtable-goers reported that the informal format provided an effective and comfortable environment for discussion, with 11 commenting positively about the organization and atmosphere of the events. In particular, participants liked the use of questions to guide the

discussions, rotating tables so that the second discussion was with new people, and that the small group size kept the event intimate and informal. As the format was a foundational feature when first developing the RDM Roundtables, it is encouraging to know that the community saw this as an important component.

Empathy

Seven RDM Roundtable participants reported that engaging with colleagues facing similar challenges was beneficial. These comments also included relating to another person's feelings or experiences. The empathy theme suggests a sense of fellowship and community.

Furthermore, there is the added benefit that participants rarely needed to provide context: many of those who have attended the RDM Roundtables have experience in wrangling data services issues at their individual organizations, so there is no need to first explain or defend why this is an important facet of our work as librarians.

We also collected information on what aspects of the RDM Roundtables were least useful. Most comments were related to the logistics of the event, including criticism related to the questions covered ("too many questions" [4 participants]; "focus of questions" [3]), and event timing ("report-out too short" [2], "not enough time" [1]). These critiques, while few in number, provided useful insight for refining the delivery of the Roundtables.

Most importantly, the reported usefulness of the events reflected the founding goals of the RDM Roundtables: Attendees viewed the RDM Roundtables as a meaningful method for learning and collaborating with their colleagues across New England, and the ability to network with individuals outside of their organization made the events attractive. The planning committee considered this as a demonstration that these professional development opportunities are an important element in the growth of our community, and the reported usefulness provides the rationale to continue to offer and develop the RDM Roundtables.

Lessons Learned

The planning process afforded the planning committee opportunities to grow and learn, and in reflecting on successful and unsuccessful aspects of previously held events, the group was better prepared to develop and provide events in the future. An established component of the planning process was a period of reflection on the previous event. As the planning process for a new event began within weeks of the previous event, the characteristics of the previous event were still readily available in the minds of the planning committee, which allowed for quick adaptations and adjustments.

The planning committee found that a one-day event was a successful model for professional development. This model allowed participants to dedicate the entire day to the event, and may have justified travel to a new location. Participants also had a full day to network, and the option to seek out a local dining option may have helped bolster the feeling of community by providing an additional opportunity to share experiences (Purnell and Jenkins 2013). The timekeeper for the event was also a valuable component to ensure the day proceeded on schedule.

The planning committee discovered that events are more successful if concepts throughout the day are similar or related. A morning event that was too dissimilar from an afternoon event makes for a challenging or disjointed transition, which itself can yield less organic

conversation. Events were also more successful if the directions and expectations were clearly stated.

The planning committee also realized that the timing of each event was a challenge to balance. In each Roundtable, the planning committee slightly modified how the event would proceed, and how much time is devoted to each section. Likewise, in the evaluations for each Roundtable, participants commented that there is either not enough time or too much time devoted to particular components of the day. The planning committee will continue to refine the timing of the event.

Opportunities

The RDM Roundtables provide an opportunity to develop a small, regional CoP around issues of data management, and there are many avenues for expanding and diversifying the program. The shape of the morning events has changed at each iteration, as have the afternoon roundtable discussions. For example, the June 2016 RDM Roundtable event was a free-form teaching and learning event, where participants shared teaching materials and strategies. The combination of different morning events and changing the format of the afternoon roundtable discussions is one way to both grow the program and continuously update the content discussed, allowing for dynamic response to community needs.

A similar project, Science Boot Camp for Librarians, was originally intended to be a gathering of STEM librarians for the five University of Massachusetts campuses when it was launched in 2009. It has since expanded to a larger program that includes all of New England, and has spawned similar gatherings in other disciplines (most notably the Social Sciences), in other regions of the country, and internationally (for example, Science Boot Camp West and True North Science Boot Camp) (Kafel 2012; Kafel, Ishii, Mullins and Raboin 2014; Schmidt 2015). Providing a framework for other regions to hold similar roundtable discussions for data management librarians is a path that we would welcome as a way to promote the skills and best practices for librarians involved in this area. New England is a dense region, which may be more suitable for these types of events, but even in this region, there are opportunities to expand the reach of the program to locations beyond the central New England area for future RDM Roundtables.

There are also possibilities for expanding the RDM Roundtable CoP to a more individual level. One opportunity is to develop a mentoring program, where more experienced data management practitioners meet on an individual level with newer or less experienced librarians. The CoP, and the associated community of interest, could be well-served by taking the larger, but still relatively intimately sized, regional group and breaking it up even further into more personal collaborations and mentoring.

Conclusion

The exchange of information and ideas among librarians working in data management is the founding goal of the RDM Roundtables. While the roundtables have been successful at providing low cost professional development that facilitates and encourages sharing, minimal funding does limit our training options to services and speakers that are willing to volunteer their time and energy. With this limitation acknowledged, it is our opinion that the RDM Roundtables make a valuable contribution to the New England network of librarians providing data services at their institutions, and they offer a unique and useful professional development opportunity.

In general, attendees viewed the RDM Roundtables positively. The 61 evaluations returned from the four RDM Roundtable events were analyzed and five themes emerged: learning, sharing, networking, format, and empathy. The gathering allows attendees to compare notes on various topics; learn about each other's work, and swap stories, problems, and solutions; and discover new information to bring back to their own institutions. With little peer support at the institutional level, developing a network of people doing similar work strengthens our own individual practices and begins the community-building process of New England data librarians. Thus, each event is created with career development and advancement in mind: through professional development and sharing experiences, we hope to create a diverse, rich, and interconnected group of librarians, who will all benefit from a supportive, creative, and vibrant group of fellow professionals. The themes that emerged from the evaluations suggest that the RDM Roundtables have been successful, and have provided a foundation for a regional community of practice.

The RDM Roundtables events provide a welcoming environment in which to learn about other organizations, and gather new ideas to implement at our home institutions. The librarians at each event bring to the table their own stories, and we find many commonalities between our experiences, from those at small, private, liberal arts colleges to those at the large, multi-campus, public universities. We also have opportunities to diverge, and explore methods of adapting and adopting services to meet the needs of our campus communities. While librarians have other avenues of development, an informal setting that allows for a frank discussion of both the benefits and frustrations of our work as data librarians is not necessarily reflected in other professional development opportunities, like webinars or articles. The flexible, discussion-focused structure of the Roundtables offers a different way of learning as compared to a more rigorous or structured curricula offered in the classroom, and the dynamic planning process means events can quickly respond to changes in our field.

We have shared a description of our efforts with the hope that other librarians responsible for research data services will be encouraged to build regional communities of practice. The entire premise of the RDM Roundtables is to provide a "grassroots-style" networking and learning opportunity for professionals within data management. Such small groups seem to be lacking in other regions, and the RDM Roundtables expand the data management training and collaboration niche within the profession. Through these multiple iterations of collaborating, learning, and sharing with our peers, we deepen our own ties to our fellow librarians with research data responsibilities, broaden our services, and better our campuses.

Supplemental Content

Appendices A and B

An online supplement to this article can be found at <https://doi.org/10.7191/jeslib.2017.1111> under "Additional Files".

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References

Ansmann, Lena, Tabor E. Flickinger, Serena Barello, Marleen Kunnemann, Sarah Mantwill, Sally Quilligan, Claudia Zanini, and Karolien Aelbrecht. 2014. "Career development for early career academics: Benefits of networking and the role of professional societies." *Patient Education and Counseling* 97(1): 132-134. <http://dx.doi.org/10.1016/j.pec.2014.06.013>

Auckland, Mary. 2012. "Re-skilling for research: An investigation into the role and skills of subject and liaison librarians required to effectively support the evolving information needs of researchers." *RLUK Report*. <http://www.rluk.ac.uk/wp-content/uploads/2014/02/RLUK-Re-skilling.pdf>

Bresnahan, Megan and Andrew Johnson. 2013. "Assessing scholarly communication and research data training needs." *University Libraries Faculty & Staff Contributions*. Paper 7. http://scholar.colorado.edu/libr_facpapers/7

(in press) Cox, Andrew. M., Mary Anne Kennan, Liz Lyon and Stephen Pinfield. 2017. "Developments in research data management in academic libraries: Towards an understanding of research data service maturity." *Journal of the Association for Information Science and Technology*. Last modified November 15. <http://eprints.whiterose.ac.uk/101389>

Cox, Andrew, Eddy Verbaan and Barbara Sen. 2012. "Upskilling liaison librarians for research data management." *Ariadne* 70. <http://www.ariadne.ac.uk/issue70/cox-et-al>

DataCure. (n.d.) *Data Curation: Thoughts and Efforts*. <https://datacurepublic.wordpress.com>

Davidson, Joy, Sheila Corral, George Coulbourne, and Andreas Rauber. 2012. "Education alignment." In *Aligning national approaches to digital preservation* edited by Nancy McGovern and Katherine Skinner, 269-308. Atlanta, GA: Educopia Institute Publications. <https://educopia.org/publications/anadp>

de Janasz, Suzanne C., and Sherry E. Sullivan. 2004. "Multiple mentoring in academe: Developing the professional network." *Journal of Vocational Behavior* 64(2): 263-283. <http://dx.doi.org/10.1016/j.jvb.2002.07.001>

Fearon, David Jr., Betsy Gunia, Sherry Lake, Barbara E. Pralle and Andrew L. Sallans. 2013. *SPEC Kit 334: Research Data Management Services (July 2013)*. Washington, DC: Association of Research Libraries. <http://publications.arl.org/Research-Data-Management-Services-SPEC-Kit-334>

Flores, Jodi Reeves, Jason J. Brodeur, Morgan G. Daniels, Natsuko Nicholls and Ece Turnator. 2015. "Libraries and the research data management landscape." *The Process of Discovery: The CLIR Postdoctoral Fellowship Program and the Future of the Academy* 167: 82-102. <https://www.clir.org/pubs/reports/pub167/RDM.pdf>

Gold, Anna. 2007. "Cyberinfrastructure, Data, and Libraries, Part 2: Libraries and the Data Challenge: Roles and Actions for Libraries." *D-Lib Magazine* 13(9/10). <http://dx.doi.org/doi:10.1045/september2007-gold-pt2>

Henderson, Margaret E. and Teresa L. Knott. 2015. "Starting a Research Data Management Program Based in a University Library." *Medical Reference Services Quarterly* 34(1): 47-59. <http://dx.doi.org/10.1080/02763869.2015.986783>

Hey, Tony and Jessie Hey. 2006. "eScience and its implications for the library community." *Library Hi Tech* 24(4): 515-528. <http://dx.doi.org/10.1108/07378830610715383>

Kafel, Donna. 2012. "Activities of Regional Consortia in Planning E-Science Continuing Education Programs for Librarians in New England." In *ACS Symposium Series: Special Issues in Data Management*, 1110, edited by Norah Xiao and Leah Rae McEwen. 69-96. Washington, DC: American Chemical Society. <http://pubs.acs.org/doi/abs/10.1021/bk-2012-1110.ch005>

Kafel, Donna, Andrew T. Creamer, and Elaine R. Martin. 2014. "Building the New England Collaborative Data Management Curriculum." *Journal of eScience Librarianship* 3(1): e1066. <http://dx.doi.org/10.7191/jeslib.2014.1066>

Kafel, Donna, Naka Ishii, Tina Mullins and Regina Raboin. 2014. "Five Years of Boot Camp: Lessons Learned." Session Presentation: *Association of College and Research Libraries, New England Chapter, Annual Meeting*, College of the Holy Cross, Worcester, MA. https://prezi.com/tbmg-a8_2it3/five-years-of-boot-camp-lessons-learned

Martin, Elaine. 2016. "The Role of Librarians in Data Science: A Call to Action." *Journal of eScience Librarianship* 4(2): e1092. <http://dx.doi.org/10.7191/jeslib.2015.1092>

Pinfield, Stephen, Andrew M. Cox and Jen Smith. 2014. "Research Data Management and Libraries: Relationships, Activities, Drivers and Influences." *PLoS ONE* 9(12): e114734. <http://dx.doi.org/10.1371/journal.pone.0114734>

Purnell, David, and Jenkins, Jacob J. 2013. "Breaking Bread, Creating Community: Food's Ability to Increase Communal Ties and Relationships." *Florida Communication Journal* 41(1): 73-84.

Riley, Ann Campion. 2015. "Data management and curation: Professional development for librarians needed." *College & Research Libraries News* 76(9): 504-506. <https://doi.org/10.5860/crln.76.9.9385>

Schmidt, Maxine G. 2015. "Boot Camp World Tour." Poster Presentation: *University of Massachusetts and New England Area Librarian e-Science Symposium*, University of Massachusetts Medical School, Worcester, MA. http://escholarship.umassmed.edu/escience_symposium/2015/posters/3

Si, Li, Wenming Xing, Xiaozhe Zhuang, Xiaoqin Hua and Limei Zhou. 2015. "Investigation and analysis of research data services in university libraries." *The Electronic Library* 33(3): 417-449. <http://dx.doi.org/10.1108/EL-07-2013-0130>

Snyder, William M. and Etienne Wenger. 2010. "Our world as a learning system: A communities-of-practice approach." In *Social learning systems and communities of practice*, edited by Chris Blackmore, 107-124. London: Springer London. http://dx.doi.org/10.1007/978-1-84996-133-2_7

Swan, Alma and Sheridan Brown. 2008. "Skills, Role & Career Structure of Data Scientists & Curators: Assessment of Current Practice & Future Needs." *Report to the JISC*. <http://www.jisc.ac.uk/publications/documents/dataskillscareersfinalreport.aspx>

Tenopir, Carol, Ben Birch and Suzie Allard. 2012. "Academic Libraries and Research Data Services: Current Practices and Plans for the Future." *An Association of College and Research Libraries White Paper*. http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/whitepapers/Tenopir_Birch_Allard.pdf

Tenopir, Carol, Dane Hughes, Suzie Allard, Mike Frame, Ben Birch, Lynn Baird, Robert Sandusky, Madison Langseth, and Andrew Lundeen. 2015. "Research Data Services in Academic Libraries: Data Intensive Roles for the Future?." *Journal of eScience Librarianship* 4(2): e1085. <http://dx.doi.org/10.7191/jeslib.2015.1085>

Tenopir, Carol, Sanna Talja, Wolfram Horstmann, Elina Late, Dane Hughes, Danielle Pollock, Birgit Schmidt, Lynn Baird, Robert J. Sandusky and Suzie Allard. 2016. "Research Data Services in European Academic Research Libraries." *Ligue des Bibliothèques Européennes de Recherche (LIBER) – Association of European Research Libraries*. <http://libereurope.eu/blog/2016/10/13/research-data-services-europes-academic-research-libraries>

Verbakel, Ellen and Marjan Grootveld. 2016. "Essentials 4 Data Support: Five years experience with data management training." *IFLA Journal* 41(4): 278-283. <http://dx.doi.org/10.1177/0340035216674027>

Wenger, Etienne, Richard McDermott and William M. Snyder. 2002. *Cultivating Communities of Practice: A Guide to Managing Knowledge*. Harvard Business Press. <https://hbr.org/product/cultivating-communities-of-practice-a-guide-to-managing-knowledge/an/3308-HBK-ENG>

Wenger, Etienne C. and William M. Snyder. 2000. "Communities of practice: The organizational frontier." *Harvard Business Review* 78(1): 139-146. <https://hbr.org/2000/01/communities-of-practice-the-organizational-frontier>

(preprint) Yoon, Ayoung and Teresa Schultz. 2016. "Research Data Management Services in Academic Libraries in the US: A Content Analysis of Libraries' Websites." *College & Research Libraries* crl16-948. Last modified November 15. <http://crl.acrl.org/index.php/crl/article/view/16620/18066>