Seeking Sustainability and Inclusivity with Transparent Practices for Research Data Management

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When thinking about how to encourage research data management education and activity, one option is to do that work in public. By demonstrating and modeling good practices, providing stepping stones and clear pathways from beginner to more advanced, and welcoming experimentation, questions, and contributions, communities can encourage public participation and a culture of growth and shared ownership for participants and future members.

As a member of the DataONE Community Engagement and Outreach Working Group, one of the projects that I shepherded was a revision of data education curriculum. The Working Group decided to update and convert older educational modules on research data management from static PowerPoint slides to slides in R Markdown, posted in GitHub, that are now open and customizable by the broader research data management community.1 Some of that work was completed with the intent of sustainability and currency of resources over time, with the reasoning that anyone with a GitHub account could contribute or update at any point. However, by placing this work in an open, shared repository, we also provided a window into what it looks like to do ongoing maintenance to these materials in a public place. Who is contributing or maintaining or adding issues to the repository? That previously invisible work is now transparent; anyone can see which member created or worked on the lesson, whether a pull request has...
been submitted, or whether an issue has been closed.

While discussions about transparency and visibility are certainly not limited to the archival field, my thinking was at least partially informed by ongoing conversations about making the work of archivists more visible in descriptive practice. By making the identities of authors and maintainers clear, we demonstrate that people are making decisions to include this information. Providing this context can also connect people to the selection process: why was this added? When? What else is relevant? Adding the human context can also help us to understand and reflect on bias, neutrality, and gaps in our work and the work of others.

**Making Research Data Management a Social Activity**

By modeling transparent behavior for community engagement and outreach, this approach also suggests a way to encourage and engage with overlapping communities. Encouraging an open and welcoming approach to learning research data management tools, systems, and techniques is an avenue for connecting more deeply with researchers and others who both use and benefit from well-described, well-managed, accessible research data.

Encouraging social research data use and training may increase long-term engagement. The Data/Software/Library Carpentries[^2] are one solid example of a grassroots, community-driven approach to creating ownership and buy-in around particular training topics and techniques. But change does not necessarily need to come from a grassroots model. Building a shared vision of research and of research data management as community goals, rather than individual mandates, allows for the continued and sustained growth of a shared ecosystem of support. Finding ways to further align the professional incentives and systems for members of the broader research data management community can further help in this regard. But the need for a radical shift towards more inclusive, expansive collaboration still exists.

[^2]: Data/Software/Library Carpentries
As a researcher and an archivist by training, with a technological background and a strong interest in community building, I can see many parallels and intersections between the work of the scientific research community and the archives, preservation, and library/information science communities. Building capacity by drawing stakeholders together to share tools and work towards common goals is useful and important for moving research data management practices closer to sustainability and long-term preservation. Unsurprisingly, there is a continued need for cross-pollination and interdisciplinary communities and cohorts to be fostered and facilitated by professionals with diverse backgrounds, skills, and interests. Sustaining, maintaining, and growing resources within and for communities is dependent on meeting the needs of current and future members. As membership ebbs and flows according to the needs of individuals and cohorts, maintaining a shared vision and mission is important to the sustainability of both community and resources.

Archivists and librarians are positioned to lead this charge. They are familiar with organizational models and with ensuring the preservation of resources over time, and are equipped to bring those and many other professional skills to the research data management table. Archivists, librarians, and other information allies can provide leadership by developing inclusive approaches, seeking and building collaborative partnerships, and insisting on research data management as a common good. Further, by investing in approaches to train and educate the research data management community in transparent, open, and welcoming ways, archivists and allies can frame the act of making good practices as an easy choice that contributes to a common, sustainable good.
Endnotes


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