23 Things: Libraries for Research Data

An overview of practical, free, online resources and tools that you can begin using today to incorporate research data management into your practice of librarianship.

Learning Resources

Librarians are learning how to apply the principles of library science to solve problems and to provide new services related to research data.

1. A **"top ten" list of recommendations** for libraries to get started with research data management from LIBER,
http://bit.ly/RDAthing1

2. Relevant concepts are presented and mapped in the **e-Science Thesaurus**,
http://bit.ly/RDAthing2

3. Understanding the life of research data with the **DCC Curation Lifecycle Model**,
http://bit.ly/RDAthing3

4. **MANTRA** online training modules for librarians,
http://bit.ly/RDAthing4

5. Read the most current literature in the **Digital Curation Bibliography**,
http://bit.ly/RDAthing5

6. Dozens of examples of resource guides created by librarians for patrons to learn more about data on the **SpringShare LibGuide Community Site**,
http://bit.ly/RDAthing6

Learning Resources
Data Reference and Outreach
Data Management Plans
Data Literacy
Citing Data
Data Licensing and Privacy
Digital Preservation
Data Repositories
and a Community of Practice

..to help librarians engage in research data management!

Data Reference & Outreach

Librarians are answering questions about data from patrons and conducting outreach to assess the data needs of their researchers and students.

7. Begin a conversation with a researcher about data by **Conducting a Data Interview**,
http://bit.ly/RDAthing7

8. Learn more about a researcher's needs by reading or creating your own **Data Curation Profile**,
http://bit.ly/RDAthing8

9. Develop engagement materials to help your librarians such as the **DataOne Librarian Outreach Kit**,
http://bit.ly/RDAthing9

---

10. Questions about data answered by experts on the **DataQ** forum,
http://bit.ly/RDAthing10

Data Management Plans

Librarians are becoming familiar with funder requirements and consulting with researchers to help them write and implement effective data management plans.

11. One example is the **DMPTool** that lists funder requirements in the United States and builds a plan by asking the researcher to answer a series of questions. Other countries such as the U.K. and Canada have similar tools,
http://bit.ly/RDAthing11

Data Literacy

Librarians are including data in their information literacy instruction, to recognize when patrons have a need for data and have the ability to locate, evaluate, and use data.

12. The **Data Information Literacy** project and book developed a curriculum to help librarians and other teachers incorporate data into information literacy outreach and instruction,
http://bit.ly/RDAthing12

Metadata

Librarians are helping to organize, classify, and describe research data and developing standards for metadata to help make data more easily discovered, understood, and preserved.

13. Determine what metadata format is appropriate and standard to recommend or apply by using the **Metadata Standards Directory**, http://bit.ly/RDAthing13

Citing Data

Librarians are helping to promote the scholarship of data by encouraging and enabling data citation, assigning identifiers to datasets, creating links between documents and data, and helping users properly attribute credit to data producers.

14. **DataCite** has resources to help researchers make their datasets citable to help users give attribution and to begin measuring impact by issuing Digital Object Identifiers (DOIs) for datasets, http://bit.ly/RDAthing14

Data Licensing and Privacy

Librarians are helping researchers share their data using appropriate licenses and while protecting confidential information about subjects or other sensitive data.

15. **How to License Research Data** from the Digital Curation Centre can help librarians work with researchers to choose a license for the data they share, http://bit.ly/RDAthing15

16. JISC manages the **DATA-PROTECTION email list** with discussions on issues related to sensitive data, http://bit.ly/RDAthing16

Digital Preservation

Librarians are working with the archival community to develop and implement infrastructure and practices to ensure that data collections are accessible and usable in five, twenty, fifty, or a hundred years or longer.

17. Understand vocabularies and standards for digital archives using the Open Archival Information System (**OAIS**) reference model and trustworthy digital repository certifications such as **ISO 16363** and the **Data Seal of Approval**

18. Find tools that are available to help with digital preservation using **COPTR**, http://bit.ly/RDAthing18

Data Repositories

Many libraries are providing institutional repositories to enable their users to publish and archive datasets or helping researchers identify other, appropriate repositories for specific funders, disciplines, or other domains.

19. Find an appropriate repository by searching the **re3data.org** registry of research data repositories, http://bit.ly/RDAthing19

20. Publish and share data now using free, online data repositories such as **figshare**, **Zenodo**, **Open Science Framework**, or **DataVerse**

Community of Practice

Librarians are connecting with each other and a larger community of researchers, technologists, funders, publishers, and others to develop solutions and share best practices for research data management.

21. An example of a national approach to research data management community-building at a federal level is the **Australian National Data Service**, http://bit.ly/RDAthing21

22. Some annual conferences that address research data and involve librarians include the International Digital Curation Conference (**IDCC**), Research Data Access & Preservation Summit (**RDAP**), International Association for Social Science and Information Services & Technology (**IASSIST**), and Research Data Alliance (**RDA**)

23. **Join the Research Data Alliance!**
   Belong to an international community who builds social and technical bridges to enable data sharing. It's free to join by visiting the website, then subscribe to the **Libraries for Research Data Interest Group**, http://bit.ly/RDAthing23

Contact Information

Michael Witt

Co-chair of the RDA Libraries for Research Data Interest Group

Associate Professor of Library Science

Purdue University, USA

E-mail: **mwitt@purdue.edu**