Understanding Institutional Research Data Management (RDM) Services

A learning guide to accompany OCLC Research [publications](#) and [the 2 October 2018 Works in Progress Webinar: Understanding Institutional Research Data Management (RDM) Services](#)

Background: The evolving scholarly record

The scholarly record is evolving to incorporate a variety of materials beyond traditional journal articles and monographs. Today, a wide range of research outputs, produced during the process of research as well as after formal publication of results, are being collected and stewarded as part of the permanent documentation of scholarship, **including research data, pre-prints, computer code, and more.**

However, as the scholarly record evolves, access to these materials often occurs through channels other than library collections—as they reside elsewhere on the network. **It is likely that the majority of what is today considered part of the scholarly record lies outside the custody of academic libraries.**

Figure 1. "The content of the scholarly record" by OCLC Research, from The Evolving Scholarly Record (doi:10.25333/C3763V), CC BY 4.0

For many academic libraries, the traditional, print-centric strategy of providing access to the scholarly record via materials in their collections has shifted to brokering access to the scholarly record via connections with a plethora of non-library repositories and information services. Academic libraries are shifting from the traditional "owned" collection – materials are purchased and physically housed in the library – to the *facilitated collection*, where libraries coordinate access to a mix of local and external resources. **The notion of a facilitated collection is particularly important in the context of a scholarly record that is growing ever more dispersed over the network, in the hands of a variety of non-library custodians.**

RDM service categories

For universities (and by extension, academic libraries), research data is probably the most visible and immediately impactful aspect of the evolving scholarly record. This has led to efforts to build or acquire capacity to support emerging RDM needs. ***The Realities of Research Data Management* is an OCLC Research project looking at the context, influences and choices research universities face in building or acquiring RDM capacity.** In the first report, *[A Tour of the Research Data Management (RDM) Service Space](#)*, OCLC Research offers a three-part model for visualizing the scope of institutional RDM services.

- **Education services** are aimed at educating researchers and other stakeholders about importance and responsibility of responsible data management, long-term curation, data management planning, and policy requirements. Examples include LibGuides, online resources, and workshops.

- **Expertise services** provide decision support and customized solutions for researchers working through specific RDM problems. Examples include helplines, direct consultation with librarians, and support for metadata creation, data preparation, and mediated deposit.

- **Curation services** supply technical infrastructure and related service to support RDM throughout the research lifecycle—including support for active data management and long-term data stewardship. Examples include persistent storage, assignment of persistent identifiers, metadata creation and management, and long-term preservation. Policies are important for implementing these services.
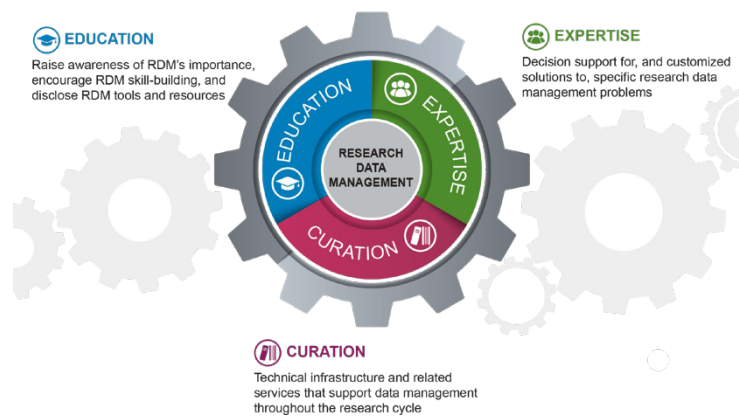

Figure 2. "RDM Service Categories" by OCLC Research, from The Realities of Research Data Management. Part One: A Tour of the Research Data Management (RDM) Service Space (https://doi.org/10.25333/C3PG8J), CC BY 4.0

This RDM service categories framework represents a view of the *potential* extent of RDM services. RDM is not a monolithic set of services duplicated across universities—it is a customized solution shaped by internal and external factors influencing local decision making. **Choosing which RDM services are important in the local institutional context is a top priority when considering RDM service provision.**
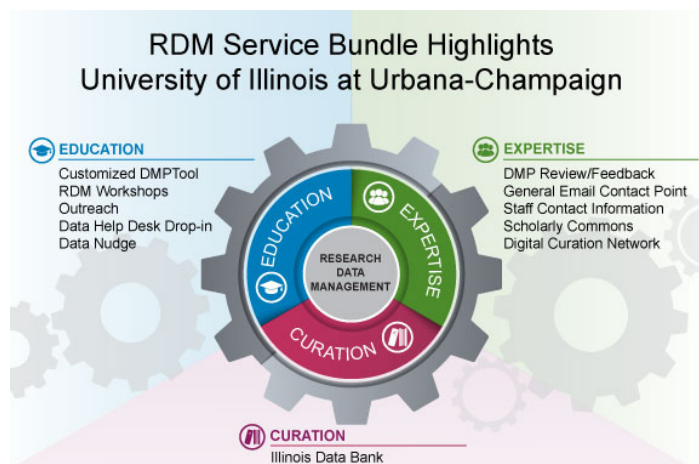
Consider practices at other institutions

Figure 3. A sample institutional service bundle, from The Realities of Research Data Management Part Two: Scoping the University RDM Service Bundle (https://doi.org/10.25333/C3PG8J), CC BY 4.0

When considering the development of new services, it is useful to survey the landscape, identify exemplars, and learn more about the range of offerings. The second report, *Scoping the University RDM Service Bundle*, offers detailed case studies of four research universities in four national contexts:

- University of Edinburgh (UK),
- University of Illinois at Urbana-Champaign (US),
- Monash University (Australia), and
- Wageningen University & Research (the Netherlands).

These examples demonstrate how different research universities have chosen to scope their local *RDM service bundle,* the range of local RDM services offered by a university to its researchers.

When considering the range of decisions made and services offered, it can be useful to particularly consider the following:

One size does NOT fit all

- RDM is not a monolithic set of services duplicated across universities. Instead, it is a customized solution shaped by a range of internal and external factors.
- Scoping an RDM service bundle sufficient to meet institutional needs does not necessarily mean implementing the full range of services within the RDM service space.
- Even institutions that scope their RDM service bundles to include services in each of the three components of the RDM service space can differ in the extent or emphasis placed on a particular component.
- Ongoing fluidity and uncertainty in the RDM service space remains a challenge in scoping RDM service bundles.

Thinking locally. . .

- RDM is an institutional issue. The academic library is an important campus player in RDM, but not the only one. Cross-unit responsibility for the RDM service bundle is common.
- Many research institutions choose to offer RDM Curation services in parallel with, rather than subsumed in, the institutional repository.
- Research Information Management (RIM) systems can be an important component of the RDM service bundle.

Thinking externally. . .

- An RDM service bundle includes not just what is built and deployed locally, but the full range of services, available locally and externally, that the institution manages or has access to.
- Local RDM curatorial services don't need to be positioned as a preferred or first choice solution for local researchers.
- No RDM service bundle is an island—all are connected, to a greater or lesser degree, to the broader, external RDM service ecosystem.

Discussion questions

1. **Does your institution offer an RDM service bundle - OR - Is an RDM service bundle being planned/in development?**
   a. **YES:** How are the services distributed across the Education-Expertise-Curation (E-E-C) spectrum?
   b. **NO:** Is this a strategic decision? Resourcing issue? Uncertainty? Other?
2. **What are the core/essential services your institution needs to offer to have an RDM service bundle?**
   a. What local factors are key in shaping your view of core services?
3. **What organizations & units (inside and outside of your organization) are providing these services?**
   a. Are researchers using services outside those provided by your institution?
   b. Do you have all of the information you need to answer these questions?

Recommended readings

Bryant, Rebecca, Brian Lavoie and Constance Malpas. 2017. *A Tour of the Research Data Management (RDM) Service Space*. The Realities of Research Data Management, Part 1. Dublin, OH: OCLC Research. https://doi.org/10.25333/C3PG8J.

Bryant, Rebecca, Brian Lavoie and Constance Malpas. 2017. *Scoping the University RDM Service Bundle*. The Realities of Research Data Management, Part 2. Dublin, OH: OCLC Research. https://doi.org/10.25333/C3Z039.