To address the continued need for libraries to be engaged in developing research data management services (RDMS), the Council on Library and Information Resources (CLIR) and the Digital Library Federation (DLF) have established the DLF E-Research Network. Launched in 2014, the E-Research Network was designed to help members of academic and research libraries develop strategies for implementing e-research and research data management support services through peer-driven, shared learning experiences and through collaborative efforts across institutions. The goal of the network experience is to encourage a self-reliant, mutually supportive community.

As E-Research Network members, institutional teams are given formal and informal opportunities for networking, resource sharing and collaboration, supported by CLIR/DLF’s organizational resources, as well as access to structured curricula, webinars and personalized consultations. Through in-person meetings and shared learning activities and experiences, the DLF is building an active and growing community of practice.

Network members come from colleges and universities of varying size. To date, 13 institutions from across the United States and Canada have participated in the E-Research Network:

- California Institute of Technology
- Colgate University
- Montana State University
- Northwestern University
- Temple University
- University of Arizona
- University of Florida
- University of Illinois Urbana-Champaign
University of Manitoba
University of Nevada Las Vegas
University of Richmond
University of Rochester
University of Toronto

The California Institute of Technology (Caltech) team has a unique perspective on what it means to be a part of the E-Research network. The Caltech Library joined the 2015 E-Research Network cohort with the aim of assessing and enhancing the rich array of research services provided to their campus community (both E- and otherwise). The Caltech team is made up of Donna Wrublevski, chemistry librarian and information specialist as well as CLIR/DLF postdoctoral fellow; Gail Clement, head of research services and librarian for earth and planetary science; and astronomer George Djorgovski, director of the Center for Data Discovery, who serves as faculty advisor.

Caltech is an atypical university because the extensive and world-renowned research footprint combines with a small and intensely challenging academic program (2000 students; 300 faculty) to deliver impactful research outputs from across the entire campus population. Many investigations take place in global “Big Science” facilities such as the Seismological Laboratory, the preeminent source for southern California earthquake information; the International Observatory Network operating telescope arrays around the world; and NASA’s Jet Propulsion Laboratory, home of the Mars Science Laboratory. Other research operations on campus represent smaller science – the long tail oft discussed in the research data community. Investigations at Caltech are typically interdisciplinary and collaborative, usually extending beyond campus and geographic borders. The roles and responsibilities of the various researchers working on a given investigation therefore presents a complex and fascinating puzzle – one Caltech needs to unpack and understand in order to serve their diverse population of users effectively.

The Caltech library’s focus on user needs relies on a robust liaison program in which many of their librarians hold sci-tech degrees, have professional experience as working scientists or engineers and/or actively serve on committees and boards that advise scientific societies and publishers. The embedded science librarian model at Caltech means that each information professional offers a vertically integrated suite of services and resources for a particular disciplinary division. These services cover the gamut from collection development to open access publishing, from enhancing scholarly reputation to providing good old fashioned bibliographic reference management and online literature searches. Research data management and sharing is one important component of that vertically integrated suite. In Caltech’s view, research data support is a point on a continuum of exemplary research services they provide and demands integration into a larger context of programmatic objectives: authorship services, research effectiveness, knowledge management and born-digital research tools and infrastructure.

Engaging with the DLF E-Research Network (and the library research data movement generally) ensures that visioning, planning and implementations in support of research data are informed by the best thinking in the profession. The E-Research Network meetings and webinars have already provided Caltech opportunities to consider questions that other research libraries are asking and answering:

- What role can the library play in research data support for their campus?
- What resources and expertise do they have that complement what other campus entities already have capacity for (or are already doing)?
- What forms of needs assessment for research data support actually work in practice?
- What local infrastructure is most effective for storing research data that does not go to a disciplinary data center/subject repository (the long tail)?
- And others!

Additionally, Caltech has questions and concerns about particular aspects of research data support that cannot be addressed in isolation. Caltech is looking to the larger research data community (DLF E-Research, RDAP Summit, Research Data Alliance) to gain insight and identify solutions to the following questions:

- What mechanisms are in place to address uncertainties in research data management and sharing, such as ownership vs. contributorship, intellectual property rights, and other ethical and legal issues?
What rights statements should our diverse campus stakeholders, as data producers, providers, aggregators and publishers, attach to their outputs to enhance reuse?

Who is expected to pay the considerable costs for research data management and publication within the American scientific enterprise? Government, universities, individual principal investigators?

And others!

The resources and people encountered in the 2015 DLF E-Research cohort have already proven to be a valued source of knowledge and experience as Caltech explores the possibilities for library engagement with research data management.

At this year’s RDAP Summit, members of the 2015 E-Research Network cohort gathered in person and virtually to discuss the current state of RDMS at their institutions and to share expectations as network members. Those that attended the cohort’s kick-off meeting in person stayed on in Minneapolis to attend the Summit. This first meeting was intentionally scheduled in conjunction with RDAP, given the breadth and depth of the conference program and its relevance to the mission and goals of the network. Having network members meet early on in the cohort and then attend the conference together provided a sense of community and a shared experience as members listened and learned throughout two days of programming.

Two weeks after attending RDAP, E-Research Network members gathered virtually for a conference debriefing. During this session members identified and discussed certain conference themes that stood out as most relevant to the group. Included in the debriefing session were the following RDMS themes:

- Outreach – defining the service and message
- Teaching – What does data literacy look like? How can we build a curriculum?
- Assessment – What does RDM success look like? What types of things/files are part of the data spectrum?
- Ingest – How do we recruit and store data?
- Partnerships – Where are the efficiencies in the current RDM profession that people can share to avoid reinventing the wheel?

The debriefing session proved to be beneficial given the varied levels of existing RDMS across the member institutions. Those that are more advanced share their experiences and resources while also encouraging and advising those institutions less advanced. Institutions in the early stages of building RDMS look to the rest of the group for leadership. The community building taking place as a result of the E-Research Network is a result of many of the themes taken away from the RDAP Summit. The Summit provided network members with a wealth of learning opportunities while also giving this budding community of practice the opportunity to collectively address and explore ways in which they can work collaboratively in solving RDMS issues.

This was the first time CLIR/DFL has been represented at the RDAP Summit; by both the network’s cohort meeting and the subsequent poster session. The Summit was an ideal venue for interacting with the RDAP community and for sharing the work of the DLF E-Research Network.

DLF offers new cohorts of the E-Research Network on an annual basis. For information on how your institution can participate in future course offerings, please contact us at info<at>diglib.org.