In recent years, academic research libraries have been actively surveying faculty in order to understand their research data management needs in light of new requirements and expectations around data management planning from the federal funding agencies [1, 2, 3]. Evidence based on cross-disciplinary surveys of faculty suggests that needs vary by department [4, 5, 6, 7]. Additionally, a survey of researchers in the humanities, natural sciences and social sciences at the University of Kansas found that influences on practices and needs vary according to the discipline and also according to the research methodology (for example, qualitative or quantitative) of the individual [5]. While many of these surveys start by defining data as a wide net covering many file types (for instance, [4]), not all researchers see the materials they work with as “data,” and, more importantly, not all agree with the notion that those materials even should be considered data [8].

To better understand disciplinary differences in the data management needs of local researchers, we set out to create a survey that would be sensitive to the language researchers used to describe their own work practices. As data management services benefit a wide spectrum of digital scholarly activity, it is important to engage researchers who describe the products of their scholarly or creative work as something other than “data.” To engage these researchers, we first introduced data management as a broad term covering a range of activities that include managing, documenting, sharing and preserving data or research materials. The survey instrument was then designed to allow researchers to self-select whether they collect, create or use “data” or “research materials,” and the rest of the questions were presented based on that choice. Our results from four colleges at the University of Minnesota Twin Cities show that a significant portion of survey respondents chose not to describe their work as “data,” suggesting that an intentionally flexible approach to the language of research can broaden the reach of this kind of needs assessment.

Survey Design Strategy

The Twin Cities campus at the University of Minnesota has over 3,000 faculty in 11 colleges and centers, representing a diverse range of disciplines. The first version of the survey was developed for one of the most heterogeneous of the
colleges, the College of Liberal Arts (CLA). The survey was designed to reach researchers in departments ranging from art and music to economics and psychology and was done in consultation with the associate dean for research and with library staff in the humanities.

The CLA survey successfully reached a broad range of researchers (30% response rate, with 29 of 32 departments represented). After the CLA survey was complete, CLA and University Libraries staff modified the instrument to run in other major colleges on campus: the Academic Health Center (AHC), which includes the Medical School and other academic health colleges; the College of Science and Engineering (CSE); the College of Food, Agriculture and Natural Resource Sciences (CFANS); and the College of Biological Sciences (CBS). Disciplinary input was key. For each college, we consulted with library subject liaisons, college support offices and associate deans for research, garnering feedback about language that would resonate best with their faculty.

Each college was given a different, customized version of the roughly 30-question survey based on this feedback [9]. Similar questions were used where possible, as we also wanted to compare results across colleges. The surveys were run in the four colleges between September 2013 through February 2015 and yielded a total of 726 responses (CLA n=172; AHC n=329 from 6 colleges, response rate unknown due to listserv distribution method; CSE n=79 from 12 departments, 18% response rate; CFANS n=146 from 14 departments, response rate unknown due to listserv distribution method). A survey for CBS is planned for fall 2015.

**Results**

The breakdown by college demonstrated that many researchers, even in colleges that are traditionally thought of as data-heavy, chose not to identify data as the primary output of their work:
- CLA: 54% data vs. 46% research materials
- CSE: 68% data vs. 32% research materials
- CFANS: 91% data vs. 9% research materials
- In the Academic Health Center (AHC), researchers were asked whether they identified as a “researcher” (65%) or “clinician” (35%); based on feedback, all answered questions about data rather than research materials.

When asked to indicate their desire for support around various facets of the research data lifecycle (Figure 1), faculty...
who worked with “data” wanted more support in preserving
data/research materials in the long term (after the research
project is completed/published), followed by assistance with
preparing their data/research materials for sharing (navigating
privacy, copyright issues). Far fewer faculty indicated a
need for support with storing data in the short term overall.

Researchers who said “research materials” were their
primary product of research indicated different areas where
they wanted more support, with respondents from CSE and
CLA wanting less support overall compared to their “data”
colleagues. Respondents who worked with “research
materials” in CFANS reported wanting more support than
these respondents from other colleges. Overall, preserving data
in the long term is a consistently high need across colleges
and types of data/materials. The general responses to this
question reflected a lack of access to resources (time, people
and funds) to support better data management practices.

Conclusions

This method of surveying faculty was very useful for
understanding differences in user needs across and within
academic colleges on our campus and has impacted our
service development, outreach techniques and education. It
has been successful in reaching researchers that may not
be comfortable describing their scholarly and academic
work as “data” – those who may see the term as a dirty
word rather than the basis of their research. We invite
others to test our survey tool at their campus. The
comparison of each survey question by college is available
at http://hdl.handle.net/11299/174051.

Resources Mentioned in the Article


