# Providing library support throughout the research cycle

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Presentation link: publish.lllinois.edu/davidluftig/UD

# Overview

The research lifecycle and the ways academic libraries are assisting with research services

Innovative ways academic libraries are supporting faculty and student research

Implementing and extending services within the University of Dayton Libraries that support researchers

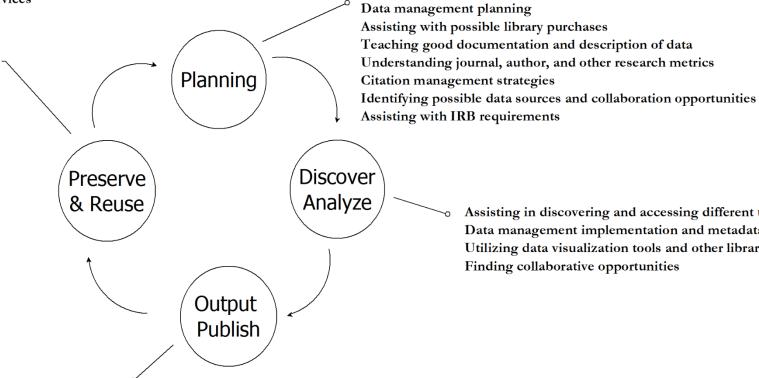
# Core functions provided by library research services

- Assistance with the grant proposal process (most notably assistance with data management plans)
- Utilizing data-related services and tools
- Understanding the publication process

Assistance with managing and organizing research data.

#### The Research Lifecycle and Services Typically Provided By University Research Services

Assuring accessibility of work through documentation and appropriate file formats Utilizing data repositories that provide long-term preservation services Utilizing persistent identifiers for researchers and data Staging materials in institutional and disciplinary repositories Assisting with preserving analog materials

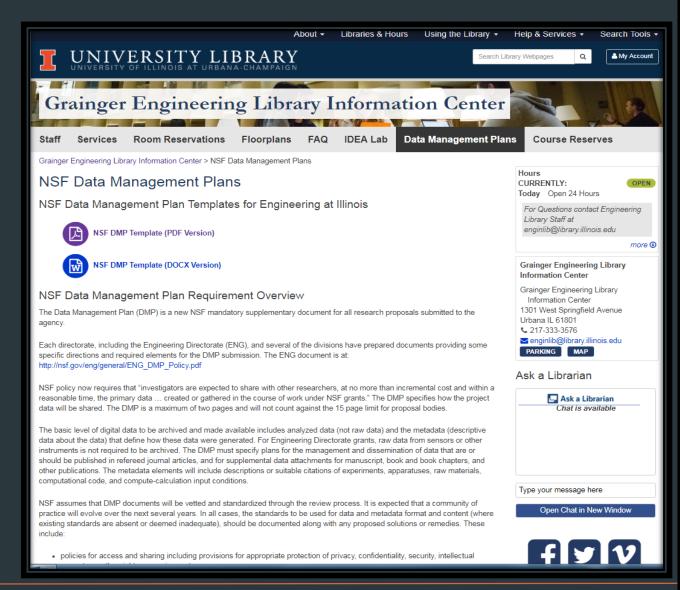


Assisting in discovering and accessing different types of data Data management implementation and metadata creation Utilizing data visualization tools and other library resourcess Finding collaborative opportunities

Identifying grants and research opportunities

Provide assistance with disseminating work Exploring journal impact and publishing options Understanding open source opportunities Working with publishers to provide access to research data Managing scholarly identities by utilizing ORCID IDs and other persistent profiling tools

## University of Illinois DMP template



#### NSF Engineering Directorate Data Management Plan Template

The DMPs for the Engineering Directorate have four required components or elements. We have put together a template document below with suggested text to assist you in constructing the DMP for your NSF proposal. The template document includes example text and instructional comments for each of the four required elements. Our instructional comments are enclosed in brackets [...].

#### Data Management Plan (DMP) for NSF Proposal [proposal title].

This DMP articulates the data sharing and data reuse techniques and technologies that will be used during the course of this NSF project.

#### **Expected Data**

The DMP guidelines state that analyzed data and associated metadata that are or should be published in refereed journal articles, for supplemental data attachments for manuscript, for book and book chapters, and other publications will be archived and made available. The expected data to be generated during the course of this project include: [include all that apply for your proposal]:

No data will be produced.
Textual Materials — Format(s):
Databases — Format(s):
Databases — Format(s):
Spreadsheets — Format(s):
Software — Programming Language(s), operating systems, etc:
Curriculum Materials — Format(s):
Digital Images — Format(s):
Audio Format(s) — Video Format(s):
Physical Collections:
Models

In addition, this project will generate raw instrumentation data from [put in instruments, sensors, etc.]. This data falls under the category of "preliminary analyses" and NSF Data Management Plan guidelines indicate that this is not be included at the basic level of digital data to be archived.

The expected types of data to be retained will include: [Specify which of the above data will be retained under the DMP.]

[State here if the proposal involves proprietary or restricted data due to commercialization efforts, membership agreements, licensed materials, and human-subject data].

[Include a statement on the roles and responsibilities of the PIs in the management and retention of research data.]

#### Period of Data Retention

The data generated for this project will be retained for a period of three years after the conclusion of the award. [The minimum data retention of research data must be at least three years after conclusion of the award or three years after public release, whichever is later. Public

https://www.library.illinois.edu/enx/nsf-data-management-plans/

### NSF engineering directorate data management plan template

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Textual Materials – Format(s):

Databases – Format(s):

Datasets – Format(s):

Spreadsheets – Format(s):

Software – Programming Language(s), operating systems, etc:

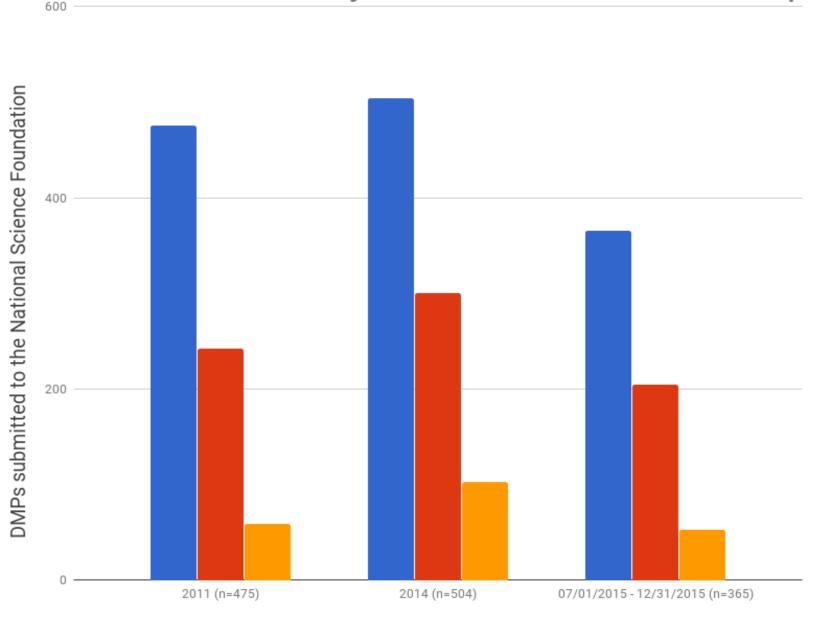
Curriculum Materials – Format(s):

Digital Images – Format(s):

Audio Format(s) – Video Format(s):

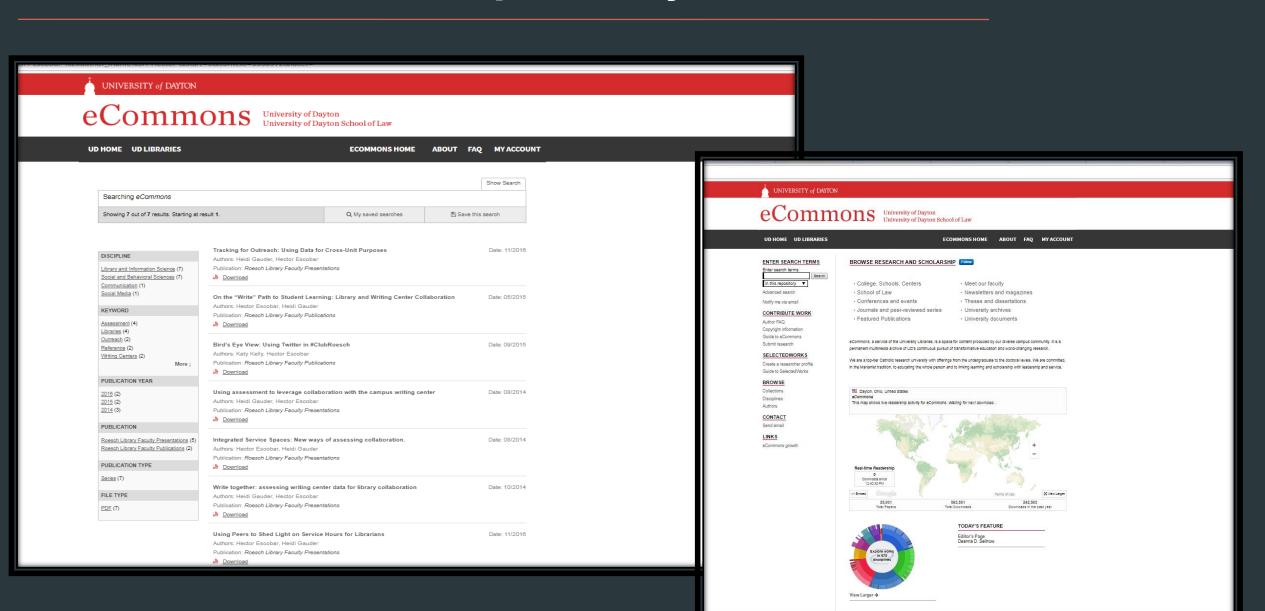
Physical Collections:

## University of Illinois NSF DMP Template Use

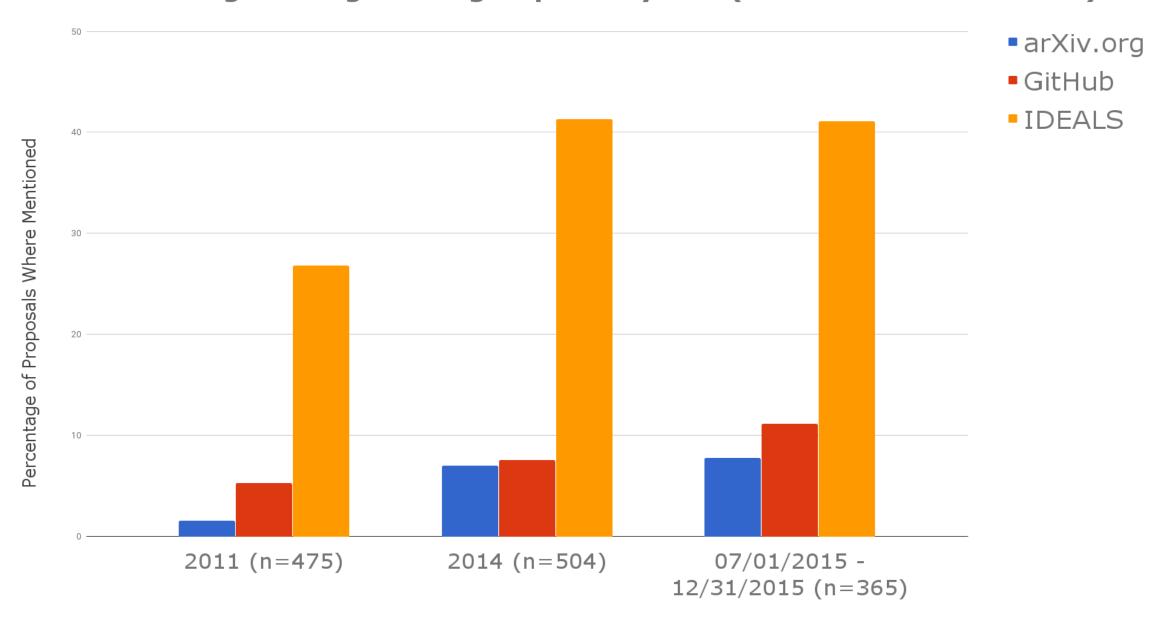


- All submitted NSF DMPs
- All submitted College of Engineering NSF DMPs
- College of Engineering DMPs that use the University of Illinois template

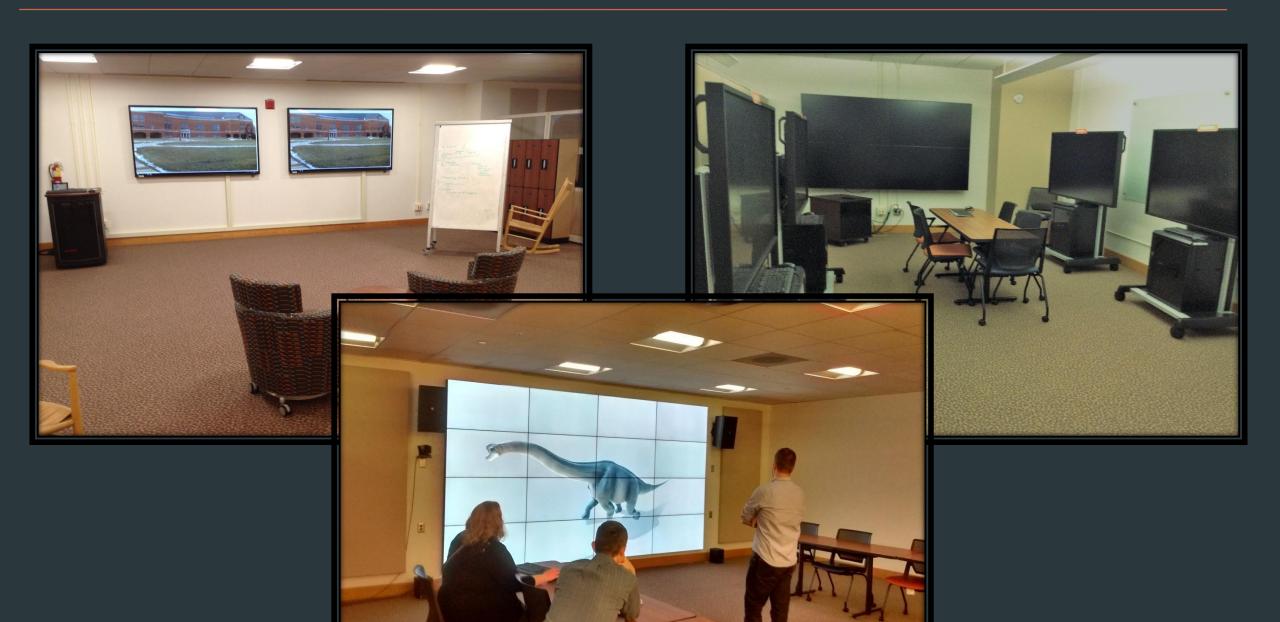
# The institutional repository



### **UIUC College of Engineering Repository Use (As Listed on NSF DMPs)**



### University of Illinois Grainger Engineering Library researcher collaboration spaces



### Supporting scholarship throughout the research life cycle at UD

Libraries have long been a partner in the research process, serving both students and faculty. We will maximize our partnership with faculty to educate students in information literacy and other competencies necessary for the acquisition and creation of knowledge. We will also extend the Libraries' role in the faculty research process with special attention to data management, research metrics, and the visibility of UD scholarship.

- 1. Improve discovery and delivery of library resources.
- 2. Develop a structure for supporting the research cycle for that includes assistance with data management planning and implementation.
- 3. Take a leadership role in the Academic Senate plan for information literacy.
- 4. Collect, disseminate, and preserve UD-generated scholarship.
- 5. Support the visibility and use of tools for research metrics.
- 6. Educate the campus community on author rights, fair use, and open-access publishing.

# The Scholarship of Teaching and Learning (SOTL)

SOTL is a self-reflexive scholarly inquiry into teaching by viewing it as a form of research and scholarship.

SOTL builds on a reflective teaching method, a peer review of teaching, educational research, and scholarly inquiries so as to refine and enhance the teaching and learning experience.

# As a Research Librarian, I will...

Help grow and develop researcher and collaboration spaces within the Roesch Library and the Scholar's Commons

Help promote and develop the eCommons through outreach, training, and usability studies

Assist with data management, data literacy, and research skills

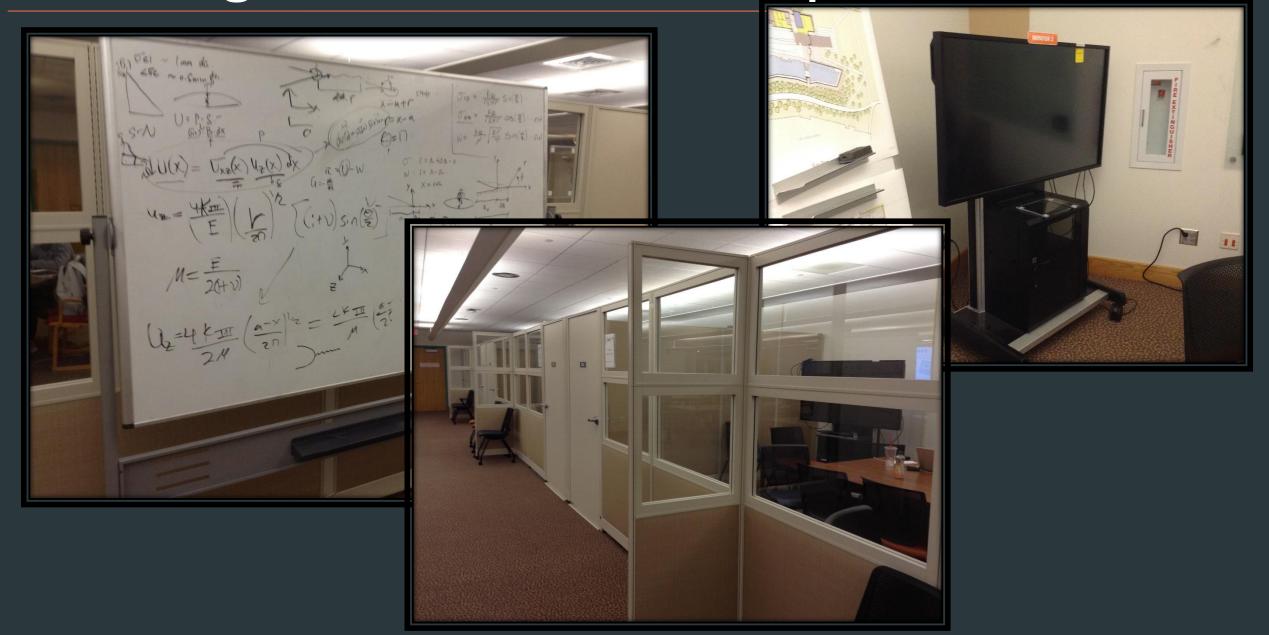
Build online informative content that will help researchers with their data management strategies as well as other research functions

Take a scholarly and methodical approach to outreach and research service pedagogy

Utilize social media and Web 2.0 tools to make the research librarian more accessible

Work to develop relationships on campus so as to find ways to assist researchers of all levels

**Enhancing collaborative research spaces** 



# My goal:

I want to be an advocate for our campus researchers so as to assist them in making the world a better place through rigorous and conscientious research.

I will do this by providing pro-active and reflexive outreach and assisting researchers from across disciplines and research skills at all points in the research lifecycle.

# References

Keil, D.E. (2014) Research data needs from academic libraries: The Perspective of a Faculty Researcher. *Journal of Library Administration*, 54(3). https://doi.org/10.1080/01930826.2014.915168

McKinney, K. (2004). The scholarship of teaching and learning: Past lessons, current challenges, and future visions. *To Improve the Academy 22*(1). https://doi.org/10.1002/j.2334-4822.2004.tb00399.x

Peters, C. & Riley Dryden, A. (2011). Assessing the academic library's role in campus-wide research data management: A first step at the University of Houston. Science & Technology Libraries, 30(4). https://doi.org/10.1080/0194262X.2011.626340