The ARL Guide to the NSF Data Sharing Policy: A Case Study

E-SCIENCE RESEARCH WORKSHOP
NATIONAL TAIWAN UNIVERSITY LIBRARY
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The outline for this talk

- Brief introductions to Association of Research Libraries (ARL) and National Science Foundation (NSF)
- The NSF data management plan (DMP) requirement
- Website: ARL Guide to the NSF Data Sharing Policy
- Developing a community resource
What we mean by “case study”

- Case study – typically a qualitative method of research

- I use the term in this talk informally – to convey narrative of experience

- As a case study, this experience also raises a key question:

  - What could we have done differently to create an even richer resource? This is a question for the audience as well.
The players in this case study

- Association of Research Libraries
- Penn State Libraries – Scholarly Communications and Office of Digital Scholarly Publishing
- National Science Foundation – the data management plan requirement (DMP)
A little context

WHAT IS ARL?

WHAT IS NSF?
ARL: Association for Research Libraries

http://www.arl.org
What does ARL do?

- Provides leadership in public & information policy
- Fosters exchange of ideas & expertise
- Facilitates emergence of new roles for research libraries
- Shapes a future environment by leveraging interests with those of allied organizations

From “Mission Statement and Guiding Principles,”
http://www.arl.org/arl/governance/mission.shtml
ARL’s Guiding Principles

- Community
- Intellectual freedom and scholarly communication
- Collaboration
- Diversity
- Operational effectiveness

*From “Mission Statement and Guiding Principles,”*

126 member libraries make up ARL

http://www.arl.org/arl/membership/members.shtml
Think of ARL as an “umbrella organization”

Photo by sheilaz413, at Flickr:
http://www.flickr.com/photos/96434059@N00/211739536/sizes/z/
What is the NSF?

THE NATIONAL SCIENCE FOUNDATION
Essentially a U.S. government funding agency.

http://www.nsf.org/
Also, NSF cares about data. A lot!

The data management plan (DMP) requirement

- Types of data, samples, physical collections, software, etc.
- Standards used for the data and metadata format and content
- Policies for access and sharing
- Policies and provisions for re-use, re-distribution, production of derivatives
- Plans for archiving the data and for preservation of access to them
DMPs capture much of the research lifecycle

E-Science Lifecycle of Research

http://www.iassistdata.org/blog/conceptualizing-digital-life-cycle#comment-54
Time Line for NSF Requirement

- Press release in May 2010 from NSF announcing the requirement
- By January 18, 2011, all proposals to NSF need a data management plan
- At many research libraries, in 2010 the fall was busier than usual!
GUIDE TO THE NSF DATA SHARING POLICY
The players in this case study

- Association of Research Libraries
- Penn State Libraries – Scholarly Communications and Office of Digital Scholarly Publishing
- National Science Foundation – the data management plan requirement (DMP)
Overview

In Spring 2010, the National Science Foundation (NSF) announced that it would alter its data sharing policy to require data management plans (DMPs) in future grant proposals to the agency. The Association for Research Libraries has developed this guide primarily for librarians, to help them make sense of the new NSF requirement. It provides the context for, and an explanation of, the policy change and its ramifications for the grant-writing process. It investigates the role of libraries in data management planning, offering guidance in helping researchers meet the NSF requirement. In addition, the guide provides a resources page, where examples of responses from ARL libraries may be found, as well as guides for data management planning created by various NSF directorates and approaches to the topic created by international data archive and curation centers.

Current NSF Guide to Grant Applications (effective January 18, 2011)

http://www.arl.org/rtl/eresearch/escien/nsf/leadershiproles.shtml
Contents of the Guide

- What / Why
- Who
- How
- Where
  - Resources page
  - Google Group

More on This Topic

- Unpacking the NSF Requirement
- A New Leadership Role for Libraries
- Helping Researchers Create a Plan
- Resources for Data Management Planning
- About the Authors
- Join ARL's Group on Data Sharing Support
Immediate implications for librarians & libraries

- A new role for liaison librarians (subject specialists)

- Research data consultation as a new service

- Collaboration – reinforced as a way of building capacity in data/digital curation.

- Collection/publication of research data

- Next-generation librarianship (LIS education)
Developing a community resource

ARL DATA SHARING SUPPORT GROUP, A GOOGLE GROUP MAILING LIST, BEGAN IN DECEMBER 2010
Primary rationale for the list: to inform ARL website updates

URL: http://groups.google.com/group/arl-data-sharing-support-group

A broad array of questions and topics are addressed via this Google Group mailing list.
Composition of the list membership – **where:**

- Mainly U.S. but also members from the U.K.
- Mostly from college and research libraries but also some from **scholarly publishing sector**, nonprofit data organizations (ICPSR), government-supported councils (JISC) and libraries (Library of Congress)
Emerging community of practice - 2

Composition of list membership – **who:**

- Many subject specialists in the sciences but also IT/systems administrator types, institutional repository coordinators, data scientists, data/digital curators, metadata librarians, a few library administrators

- List members also learn who else is contributing to implementation of a data curation program or service
Emerging community of practice - 3

• Sharing of information through topics/questions addressed on the list – for example:
  
  ○ Surveying research data needs – how to get started?
  
  ○ Advice on data repositories
  
  ○ Guidance on video storage, licensing metadata, cross-institutional collaborations.
  
  ○ Announcements of conferences, forums, workshops.
Emerging community of practice - 4

- Common concerns about helping researchers with the NSF data management plan requirement
  - The need for dedicated funding
  - The challenging psychology of sharing
  - How to position librarians more as research consultants
Lessons learned from working on the ARL Guide -1

- It’s better to have more than a month to build a resource like this

- Had there been time, it would have been useful to conduct a survey first about what libraries are doing in response to the NSF requirement.
  - (Some libraries have distributed surveys since last fall.)
Lessons learned from working on the ARL Guide -2

- Could have mentioned relevance of managing humanities data

- Could have given more attention to skill sets and advantageous characteristics for data/digital curators

- Others?
By way of conclusion . . .

HOW COULD WE HAVE DONE THINGS DIFFERENTLY, TO CREATE A RICHER RESOURCE? WHAT DO YOU THINK?

A question for the audience...