Data Management Support
First steps in implementing research data services

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“between 1500-2500 MB of imaging data”

“several million points of data in each data set”

“plasmonic nanostructure simulations ...”

“electric and magnetic field profiles”
Plan & Design

Discover & Reuse

Interpret & Analyze

Collect & Capture

Describe & Preserve

Distribute & Share

Research Data Lifecycle

NSF
General Requirements

- Types of data produced
- Standards for data and metadata
- Policies for access and sharing
- Policies for re-use and re-distribution
- Plans for archiving and preservation
Trends

- Misuse of Terminology
- Sharing in Departments
- Range of Detail
- Are they following the DMP?
Interview Questions

• Description of data
• 5 questions about storage and access
• 4 questions about sharing
• 1 question about preservation
• 1 question about the library’s role
Snapshot: Chemistry
Common themes: Storage

- Storage a key issue
- Lack of formalized departmental policies
Common themes: Sharing

• Embargo period
• Proprietary outlook
• Some data not possible to share
• Use of disciplinary repositories
What role can the library play?

Best Practices
Storage
DMPs
Statistics
Sharing
Link Data
LIS Students
Metadata
No Role
### Think about managing your data

<table>
<thead>
<tr>
<th>What are your goals?</th>
<th>Issues to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>➤ Facilitate ongoing research?</td>
<td>➤ Organizing data</td>
</tr>
<tr>
<td>➤ Funding or journal requirements?</td>
<td>➤ Storing and preserving data</td>
</tr>
<tr>
<td>➤ Dissemination with others?</td>
<td>➤ Sharing and re-using data</td>
</tr>
</tbody>
</table>
Issue: Organizing data for self and others

Metadata
- Description of data
- Makes easier to find, reuse, and share
- Ensures everyone speaking the same language

Standards
- General: Dublin Core
- Discipline specific: FGDC, AVMS, ABCD

NSF Requirement: Data and metadata standards
Issue: Sharing and access

Discussion: Sharing

- What are the benefits of sharing your data?
- What concerns do you have about sharing your data?

NSF Requirement: Policies for sharing and access
Registration & Attendance

- **Graduate Students**: 20 Registered, 5 Attended
- **Faculty**: 10 Registered, 8 Attended
- **Staff**: 5 Registered, 3 Attended
Survey Results

Why did you attend?
- Best Practices: 6
- NSF Plans: 5
- Overview: 5
- Resources: 4

What was the most helpful part?
- Resources: 6
- Larger DM issues: 2
- Organize: 2
- Everything thinking: 2

What would you still like more information about?
- Storage: 5
- Specific problems: 2
- What others are doing: 2
- All covered: 1

What other research data services do you need?
- Storage: 3
- Statistician: 1
- Personal Control: 1
Next Steps

- Discover & Reuse
- Plan & Design
- Collect & Capture
- Describe & Preserve
- Interpret & Analyze
- Distribute & Share

Research Data Lifecycle
New Partner: Center for Statistics & Visualization

Joe Ryan, Research Visualization Engineer

Tamara Greasby, Research Statistician

http://dataviz.du.edu
New Partner: Center for Visualization & Statistics

Tools on the Web

There are a number of free and fee-based visualization tools on the web. What you'll find on this page is just a sampling of what's out there!

Explore more tools here and here.

Comments (0)

Online Tools

Gapminder
Explore global data and macro-trends through interactive, time-based maps and graphs. Covers major aspects of global development such as Environment, Health, Energy, Gender, Economy, Demography and Governance. Data is downloadable, and user can also access lesson plans, videos, and more.

Plotly
This tool allows you to create and customize scatter, line, bar, area, error bar, heatmap, box, and histogram visualizations using your own data. You can then export and share your creations.

Infogr.am


Questions?

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