

Research Data Support

at the MSU Libraries and University Archives

Research Coffee Break – April 4, 2013

Hailey Mooney

Data Services and Reference Librarian

Lisa Schmidt

Electronic Records Archivist

Overview

- Policy Context
 - Data Management Plans
- Scholarly Communication Context
 - Data Sharing Impacts
- Research Data Lifecycle
- Research Data Management Guidance
 - Advising, Training, Resources
- Library Data Services

Policy Context

- University Research Council Best Practices (2001)
Research Data: Management, Control, and Access
 - To assure that research data are appropriately recorded, archived for a reasonable period of time, and available for review under the appropriate circumstances.
- National Science Foundation mandate (January 2011)
 - Data management plan requirement



Other Federal Policies



Policy Context

- White House policy memo (February 22, 2013)
“Increasing Access to the Results of Federally Funded Scientific Research”
 - Federal agencies with more than \$100M in R&D expenditures must develop plans to make the published results of federally funded research freely available to the public within one year of publication.
 - Requires researchers to better account for and manage the digital data resulting from federally funded scientific research.

Data Management Plans

- **Policies for re-use**, re-distribution, and creation of derivatives
- **Plans for archiving data**, samples, and other research outcomes, maintaining access
- **Types of data**, samples, physical collections, software generated



Data Management Plans

- **Standards for data** and metadata format and content
- **Access and sharing policies**, with stipulations for privacy, confidentiality, security, intellectual property, or other rights or requirements
- NSF will not evaluate any proposal missing a DMP
- Costs to implement DMP may be included in proposal's budget



Scholarly Communication Context

- Data sharing and open data
 - Data sets as publications
 - Data journals
 - Citations for data (e.g., used in secondary analysis)
 - Data as supplementary materials to traditional articles
 - Data repositories and archives

Data Sharing Impacts

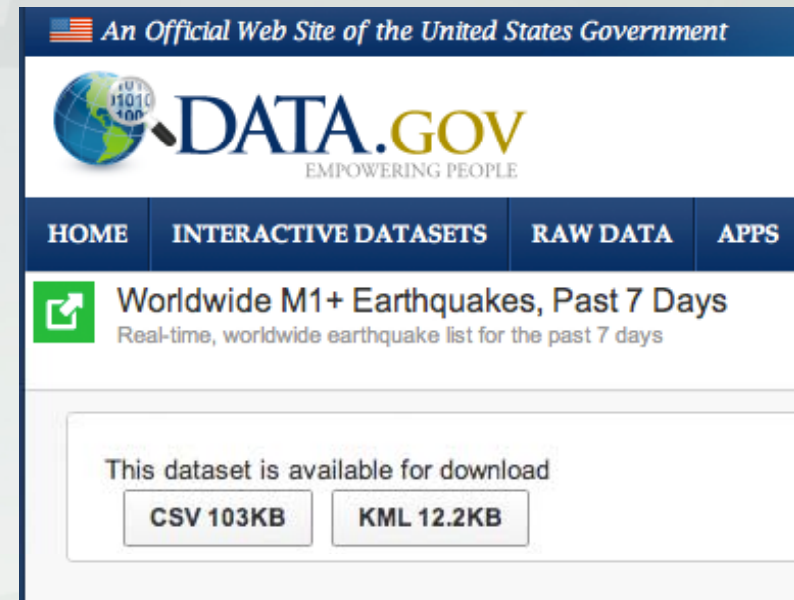
- Reinforces open scientific inquiry
- Encourages diversity of analysis and opinion
- Promotes new research, testing of new or alternative hypotheses and methods of analysis
- Supports studies on data collection methods and measurement

Cc http://www.flickr.com/photos/pinchof_10/




Data Sharing Impacts


- Facilitates education of new researchers
- Enables exploration of topics not envisioned by initial investigators
- Permits creation of new datasets by combining data from multiple sources



An Official Web Site of the United States Government

 **DATA.GOV**
EMPOWERING PEOPLE

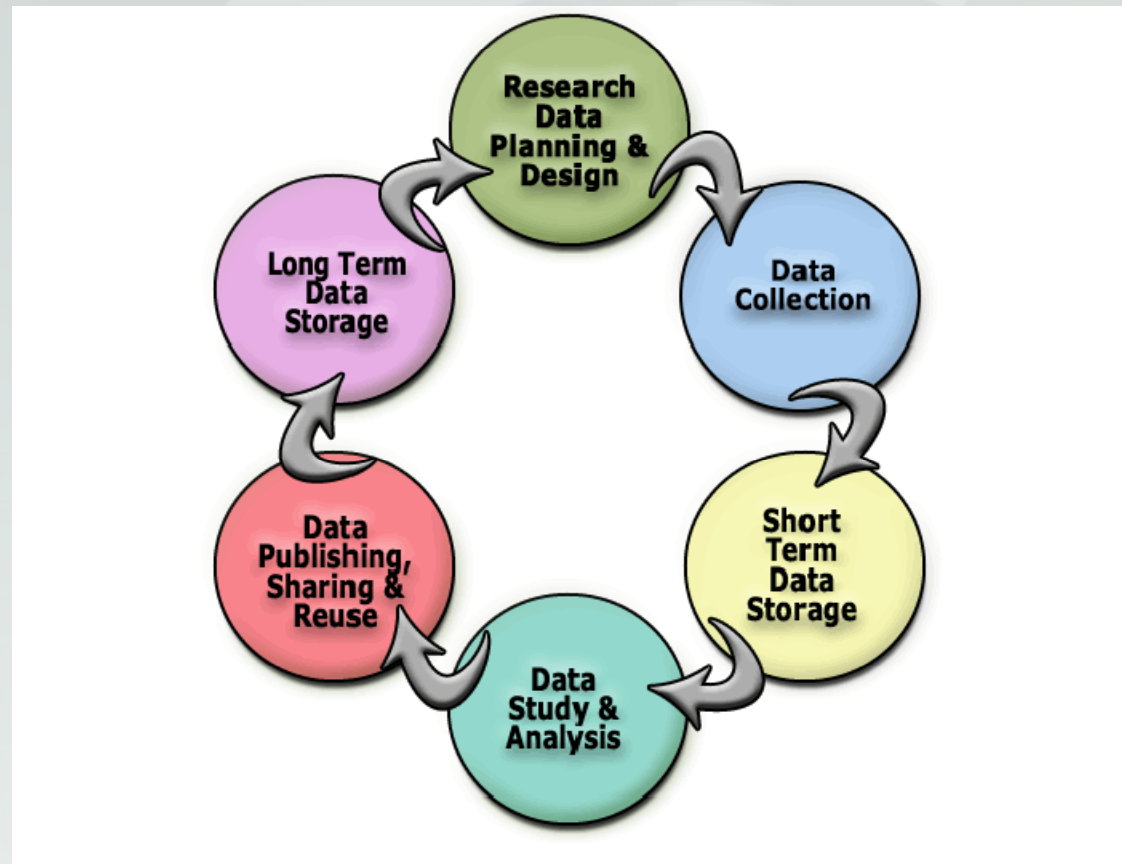
HOME INTERACTIVE DATASETS RAW DATA APPS

 **Worldwide M1+ Earthquakes, Past 7 Days**
Real-time, worldwide earthquake list for the past 7 days

This dataset is available for download

CSV 103KB KML 12.2KB

Research Data Lifecycle



Research Data Management Guidance

- Face-to-face Advising
 - Writing Data Management Plans
 - Planning for Digital Projects
 - Managing Digital Information
- Group Training
 - New Faculty Orientation
 - Faculty Seminars
 - Classroom Instruction

The screenshot shows the MSU Libraries website page for Research Data Management Guidance. The page includes a navigation menu with links for General Info, Resources, Research Help, How To, Computers, and Contact. The main content area is titled "Research Data Management Guidance" and provides an overview of the service, its purpose, and best practices. It also lists the team members and advisors.

Research Data Management Guidance

The Research Data Management Guidance service is a joint effort between the MSU Libraries and University Archives to respond to the emerging concern surrounding research data management. Effective research data management is an active and ongoing process during the entire research lifecycle, from project conception to long after it is finished.

Our purpose is:

1. To provide guidance to faculty in the development and execution of research data management plans.
2. To connect faculty to distributed research data support services throughout the university.
3. To educate students, faculty, and staff about the importance of data management.

Best practices for research data management can

- help you secure grant funding
- enhance the ability to share data internally during a project
- bring traditional library and archival expertise for the organization and care of digital information to your own personal research projects
- create a data output that can become part of the scholarly record, earning recognition and citations
- help you make efficient and effective use of research funding

Contact:
 researchdata@mail.lib.msu.edu

Team Members

Aaron Collis - Digital Curation Librarian
 Randi Junak - Systems Librarian
 Lucia Stark - Metadata Librarian
 Haleigh Rooden - Data Services and Reference Librarian
 Lisa Schmidt - Electronic Records Archivist

Team Advisors

Cynthia Ghering - Director of Archives
 Shawn Nicholson - Assistant Director for Digital Information

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lib.msu.edu/about/rdmg

Research Data Management Guidance

- Provide guidance to faculty in the development and execution of research data management plans.
- To connect faculty to distributed research data support services throughout the university.
- To educate students, faculty, and staff about the importance of data management.

Advising

- One-on-one or team consultations
 - Tailor data management best practices to your particular project/funding proposal
 - Provide you with information you need to write a data management plan for grant proposals.
 - Covers funding requirements and best practices
 - Organizing data
 - Storing and preserving data
 - Documenting data
 - Sharing data

Training

- Best Practices Workshops
 - New Faculty Orientation
 - Faculty Seminars in Research & Technology
 - May 7, 2013
 - By request
 - Classroom, research team, etc.

Resources

- DMP Tool
 - Template to create NSF data management plans
- Online Guide: Lifecycle Data Management Planning
- Referrals: Research Data Services Catalog
 - Unified presence for the distributed network of research data resources across campus. Detailed info on services across the lifecycle of the research process.

Library Data Services

- Identification and Access for statistical information and numeric data sets for secondary analysis, primarily in the social sciences
 - Reference
 - Instructional support
 - Collections
 - Access
 - Acquisitions (purchase recommendations)
 - Organization

Questions?

- Research Data Management Guidance
 - <http://lib.msu.edu/rdmg>
- Library Data Services
 - <http://dataservices.lib.msu.edu>
- Contact: researchdata@mail.lib.msu.edu

References

- University Research Council Best Practices
Research Data: Management, Control, and Access
http://rio.msu.edu/research_data.htm
- National Science Foundation Mandate
http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_2.jsp#dmp
- White House Policy
Memo http://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf