NSF Data Management and Public Access Initiatives

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NSF Data Management and Public Access Initiatives

e-Science Symposium
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Outline

• Policy:
  – NSF Data Management Plan
  – NSF/BIO’s guidance for DMP and post-award reporting

• NSF/BIO’s Strategy:
  – Award Management
  – Assessment
  – Joint Visioning with CISE/ACCI
  – Investment
    • Planning and Community Engagement
    • Implementation

• Policy:
  – NSF Public Access Plan
NSF Data Sharing Policy

“Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing. “
NSF Data Management Plan

- 2 supplemental pages
- FastLane requirement/Return Without Review
- Original data, metadata, and software/code
- Details on how data will be managed and disseminated, past performance
- Sufficient for replication
NSF/BIO DMP Guidance

• Sub-disciplines have their own standards
• Accepted norms for timely distribution vary
• Follow best practices in proposed sub-discipline
• Address how standards, best practices, and timeliness will be met

NSF/BIO DMP Guidance

1. Describe data collected and metadata formats and standards
2. Describe data storage and preservation resources and facilities (incl. post award)
3. Describe data/metadata dissemination methods (incl. post award)
4. Describe data sharing and public access policies for (incl. privacy, confidentiality, security, IP, etc.)
5. Describe roles and responsibilities re: data management (incl. contingency and post award)
NSF/BIO Post-Award Reporting Guidance

- Annually: data management/sharing progress
  - Identifiers, accession numbers, citations, etc.
- Final report: implementation of the DMP
  - data produced
  - data retained post-award
  - dissemination and verification of sharing
  - format in which data and metadata are available
  - location of data for long-term public access
- Future proposals > “Results of prior NSF support”
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Award Management

- Solicitation/award letter language and conditions
- ABI Sustaining track
- Cooperative agreements
Assessment

- Internal analysis of BIO DMPs (Cragin, Cak)
  - assessed DMPs for 5 Guidance items
- PD surveys
- Sample DMPs for program requirements (LTER)

Preserving BIO-Funded Research Data:
Leveraging Research Data Management and the Public Access Policy
Joint Visioning

- BIO AC & CISE ACCI: April 23rd
- Discuss major BIO data infrastructure investments
- Identify priorities, gaps, opportunities
Sample Investments

• **GoLife**: integrated data and information resources for comparative biology

• **Sustainability Training**: Ecological Society of America peer-based course for sustainable biological infrastructure (1340550)

• **GBIF, IPBES**: U.S. participation in the Global Biodiversity Information Facility and the Intergovernmental Platform for Biodiversity and Ecosystem Services (1451069, 1415669)
Public Access Workshops

• Addressing changing practices around the publication of biological data (1449499)
• Reducing barriers for the management, integration, and public sharing of large and complex data among biologists (1450894)
• Guidelines on preparing animal behavior data for sharing, publication, and access (1451110)
• Management and preservation of audio and video data (1451374)
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NSF Public Access Plan

Today’s Data, Tomorrow’s Discoveries
Increasing Access to the Results of Research Funded by the National Science Foundation

National Science Foundation

March 18, 2015

Requirements/Constraints

• Provide public access to results of NSF awards
• Minimize burden on PIs, NSF
• Embed public access into existing workflows
• Leverage existing systems
  – e.g., e-Jacket; research.gov, external services
• Extend to multiple products of NSF-funded research
• Minimize cost
NSF Public Access Plan

• As of Jan 2016, requires publications from awards to be made publicly available within one year
• (Waivers to embargo possible)
• DMP requirements, allowance for costs, data citation stay same
• Calls for community engagement in use of identifiers, metadata, standards
NSF Public Access Plan

• Leverages current programs, policies, and systems (incl. DoE Pages)
• Establishes oversight Working Group
• Establishes a website for Plan, feedback, and FAQs
• Calls for regular updates to NSB and OSTP/OMB
• Allows for expansion for other products of NSF-funded research
1. NSF Credentials
2. NSF Award ID
3. DOI (publisher)
4. Copy of paper (PDF/A)
Questions?

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