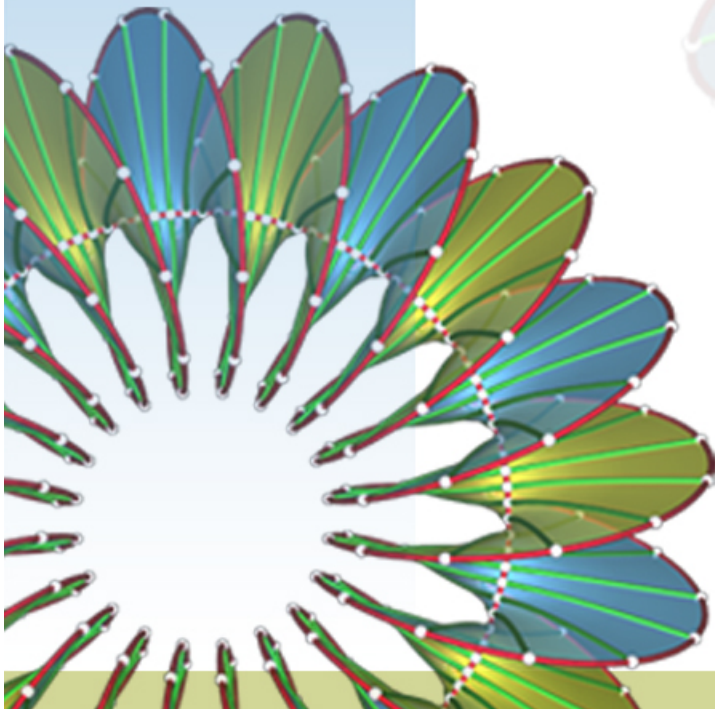




NSF Policies on Software and Data Sharing and their Implementation

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NSF Policy on Dissemination and Sharing of Research Results (1/2)

NSF Award & Administration Guide (AAG), 2013 & 2014, Chapter VI.D.4

http://www.nsf.gov/pubs/policydocs/pappguide/nsf13001/aag_6.jsp#VID4

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- Investigators are expected to promptly **prepare and submit for publication**, with authorship that accurately reflects the contributions of those involved, **all significant findings** from work conducted under NSF grants.
- 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.
- Investigators and grantees are encouraged to **share software** and inventions created under the grant or otherwise make them or their products widely available and usable.



NSF Policy on Dissemination and Sharing of Research Results (2/2)

- NSF normally allows grantees to retain principal legal rights to intellectual property developed under NSF grants to provide incentives for development and dissemination of inventions, software and publications that can enhance their usefulness, accessibility and upkeep. Such incentives do not, however, reduce the responsibility that investigators and organizations have as members of the scientific and engineering community, to **make results, data and collections available to other researchers.**
- NSF program management will implement these policies for dissemination and sharing of research results, in ways appropriate to field and circumstances, **through the proposal review process; through award negotiations and conditions; and through appropriate support and incentives** for data cleanup, documentation, dissemination, storage and the like.



Documentation in Proposal: “Data Management Plan” (1/2)

NSF Grant & Proposal Guide (GPG), 2013 & 2014, Chapter II.C.2.j

http://www.nsf.gov/pubs/policydocs/pappguide/nsf13001/gpg_2.jsp#dmp

http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg_2.jsp#dmp

- **Plans for data management and sharing of the products of research.** Proposals must include a supplementary document of no more than two pages labeled “Data Management Plan”. This supplement should **describe how the proposal will conform to NSF policy on the dissemination and sharing of research results** (see AAG Chapter VI.D.4), and may include:
 - a. the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in ... the project
 - b. the standards to be used for data and metadata format and content ...
 - c. policies for access and sharing ...
 - d. policies and provisions for re-use, re-distribution, and the production of derivatives
 - e. plans for archiving data, samples, and other research products, and for preservation of access to them



Documentation in Proposal: “Data Management Plan” (2/2)

- Data management requirements and plans specific to the Directorate, Office, Division, Program, or other NSF unit, relevant to a proposal are available at:
<http://www.nsf.gov/bfa/dias/policy/dmp.jsp>
- If guidance specific to the program is not available, then the requirements established in this section apply.
- For AST, see (linked from above URL):
<http://www.nsf.gov/bfa/dias/policy/dmpdocs/ast.pdf>
- Gives AST-specific examples for the five sub-bullets on the previous slide, in brief:
 - a. What products will the project produce?
 - b. What standards will be used for the products?
 - c. What policies will be used for accessing and sharing them?
 - d. What are the policies for reusing and redistributing the products, and for producing derivatives?
 - e. What are the plans for archiving the products, and for preserving access to them?



Final Thoughts

- Specific solicitations may have more specific guidance
- Recent “Increasing Access to the Results of Federally Funded Scientific Research” memo from OSTP
 - “... the direct results of federally funded scientific research are made available to and useful for the public, industry, and the scientific community ... include peer-reviewed publications and digital data”
- And recent “Open Data Policy” Guidance from OMB
 - <http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf>
 - “... requires agencies to collect or create information in a way that supports downstream information processing and dissemination activities ... includes using machine-readable and open formats, data standards, and common core and extensible metadata for all new information creation and collection efforts ... use of open licenses ...”
 - Open data is defined as consistent with principles: public, accessible, described, reusable, complete, timely, and manage post-release
- Affect on NSF policies to come