Development of a Proposed NIH Data Management and Sharing Policy

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Background

- Feb. 2013: White House Office of Science and Technology Policy (OSTP) released memorandum entitled "Increasing Access to the Results of Federally Funded Scientific Research"
 - Development of agency Plans
 - Applies to peer-reviewed publications and digital scientific data

EXECUTIVE OFFICE OF THE PRESIDENT OFFICE OF SCIENCE AND TECHNOLOGY POLICY WASHINGTON, D.C. 20502

February 22, 2013

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: John P. Holdren

SUBJECT: Increasing Access to the Results of Federally Funded Scientific Research

1. Policy Principles

The Administration is committed to ensuring that, to the greatest extent and with the fewest constraints possible and consistent with law and the objectives set out below, the direct results of federally funded scientific research are made available to and useful for the public, industry, and the scientific community. Such results include peer-reviewed publications and digital data.

Scientific research supported by the Federal Government catalyzes innovative breakthroughs that drive our economy. The results of that research become the grist for new insights and are assets for progress in areas such as health, energy, the environment, agriculture, and national security.

Access to digital data sets resulting from federally funded research allows companies to focus resources and efforts on understanding and exploiting discoveries. For example, open weather

Objectives of the Holdren Memo

Digital Data

- Maximize free access while
 - Protecting privacy and confidentiality, national security
 - Recognizing intellectual property rights
 - Balancing costs & benefits of long-term preservation
- Require data management plans (DMPs)
- Allow inclusion of costs in applications for funding
- Ensure appropriate evaluation of DMPs
- Monitor compliance by investigators
- Encourage deposit of data in public repositories, where possible
- Cooperate with the private sector
- Develop approaches for data citation & attribution
- Support training, education and workforce development
- Assess long-term needs for preservation and options for repositories

Scholarly Publications

- Public can read, download, analyze in digital form
- 12-month post-publication embargo as guideline, with stakeholder petitions to change
- Easy public search, analysis of, and access to publications
- Full public access to metadata with charge upon first publication
- Public-private collaboration
- Attribution to authors, jog and original publishers
- Archival solut.
 preservation & vithout charge
 - Uses widely allable, nonproprietary standards/formats
 - Provides access for persons with disabilities (consistent with Section 508 of Rehabilitation Act)
 - Enables integration and interoperability with other Federal archival solutions and other appropriate archives

The NIH "Public Access Plan"

NIH National Institutes of Health Turning Discovery Into Health National Institutes of Health Plan for Increasing Access to Scientific Publications and Digital Scientific Data from NIH Funded Scientific Research February 2015

Feb. 2015: NIH Plan released

- Peer-reviewed publications NIH Public Access Policy
- Considerations for Digital scientific data
 - Requiring submission of data management plans (DMPs) by all
 NIH-funded research investigators, regardless of funding level
 - Evaluating data sharing plans during peer review process
 - Encouraging supported researchers to deposit data in established public repositories and to use existing data standards
 - Developing approaches to ensure the discoverability of data resulting from NIH-funded research
 - Promoting interoperability and openness of digital scientific data generated or managed by NIH
 - Exploring the development of a data commons

NIH Priority-Setting for Data Management and Sharing

- Plan ≠ Policy
- Vast amount of data types generated with NIH funds
- Many federal and international efforts underway in data sharing, open data, open science
- NIH identified need to assess value, benefits, and costs of sharing different data types
 - Engage the public to help establish priorities (e.g. RFI, presentations, discussions)

RFI on Strategies for NIH Data Management and Sharing (NOT-OD-17-015)

- Section I: Data Sharing Strategy Development
 - What, when, and how data should be managed and shared
 - Value in sharing different types of data
 - Barriers and how to overcome them
- Section 2: Inclusion of Data and Software Citation in NIH Research Performance Progress Reports and Grant Applications
 - Impact of citations on reporting and the need for technical guidance
 - Strengthen and incentivize data and software sharing
- General feedback on relevant topics
- Released November 14, 2016, comments due by January 19, 2017

Considerations for a *Proposed* NIH Data Management and Sharing Policy

- Data Management Plans
 - Required, regardless of funding level
 - Evaluated during peer review
 - Machine-readable and updateable
 - Made publicly available (e.g., RePORTER)



- Request budget in application to support data management plans
- Use of publicly accessible data repositories for archiving and preserving scientific data
- Enable appropriate citation of data
 - Registration of datasets to facilitate access and appropriate credit to data generators

Next Steps for NIH

- Confer with other Federal agencies
- Issue draft policy for public comment
- Analyze comments and finalize policy
- Issue final policy and guidance, along with education, training, tools, etc.
 - Implement any changes to systems, forms, procedures, etc.

Additional NIH Data Sharing Activities

NIH Data Commons

- Trans-NIH BioMedical Informatics Coordinating Committee (BMIC)
- Big Data 2 Knowledge (BD2K) Initiative
 - Resource Indexing (e.g., BioCADDIE, Data Discovery Index)
 - Funding Opportunities (e.g., curation, community-based standards, technologies)

Additional Resources

• For General Inquiries:

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Questions

