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Research Data Management & NIH DMSPs

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December 6, 2024

Today's Session

- Data management (aka, stewardship)
- Resources for NIH DMSP
- Tools & on-campus support
- Q&A

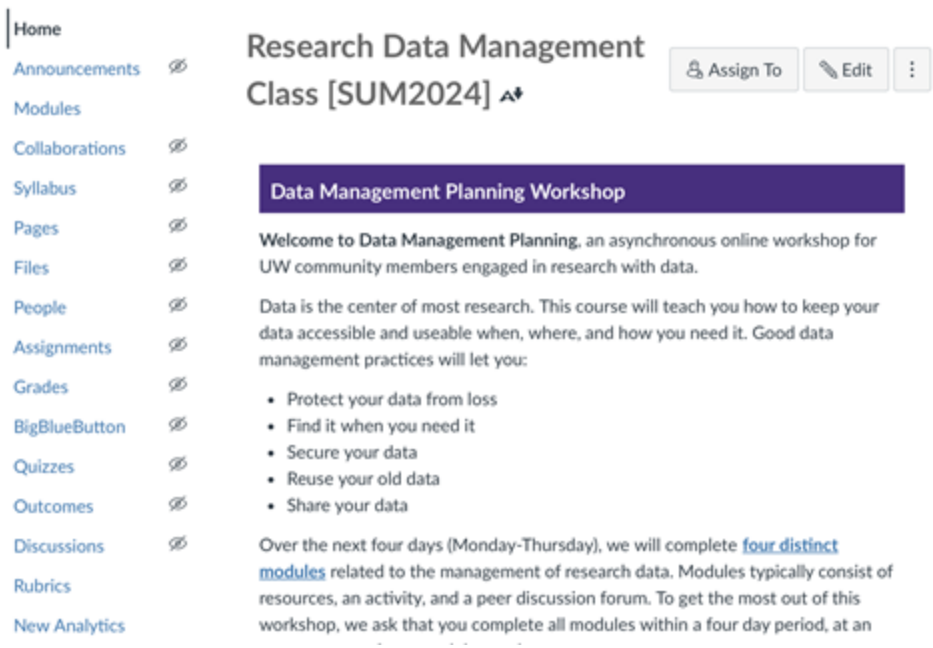
Got data?

- Data definition(s)
- Data needs
  - management
  - stewardship
  - sharing

Ten Simple Rules for the Care and Feeding of Scientific Data (2014)

RDM Workshop

- Protect it from loss
- Find it when you need it
- Secure it
- Reuse it
- Share it



RDM Workshop

Illustration credit: Ainsley Seago.

Roles & Responsibilities

- Who is the project director?
- Who collects the data?
- Who knows where all of the data is stored and makes sure it's organized correctly?
- Who generates the metadata?
- Who analyzes the data?
- Who is responsible for the backup schedule?

What is a DMP/DMSP?

A data management plan (DMP) is a document which defines how data handled throughout the lifecycle of a project—that is, from its acquisition to archival.

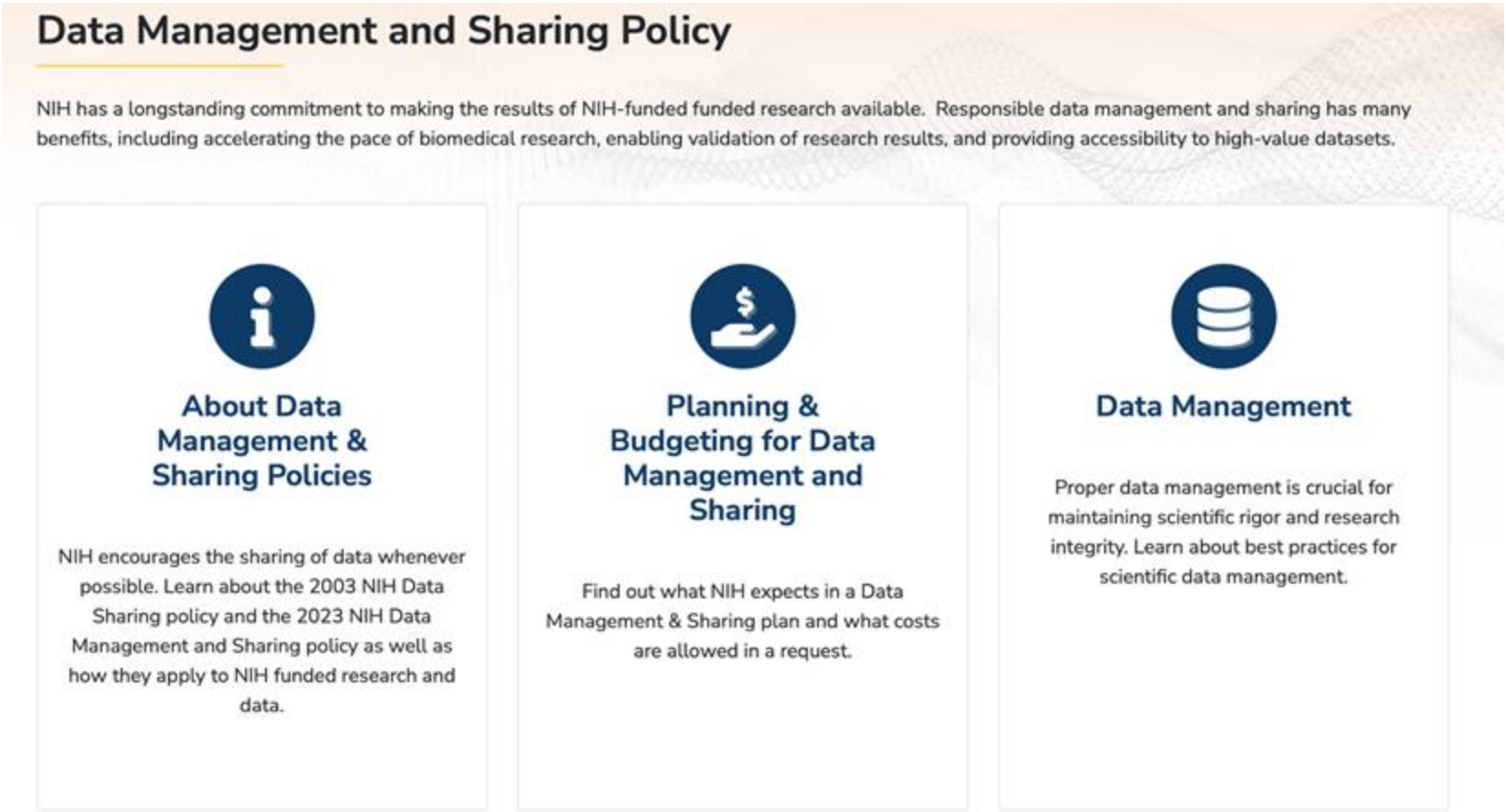
Example from Nature

Reporting standards and availability of data, materials, code and protocols

An inherent principle of publication is that others should be able to replicate and build upon the authors' published claims. A condition of publication in a Nature Portfolio journal is that **authors are required to make materials, data, code, and associated protocols promptly available to readers without undue qualifications.** Any restrictions on the availability of materials or information must be disclosed to the editors at the time of submission. Any restrictions must also be disclosed in the submitted manuscript.

After publication, readers who encounter refusal by the authors to comply with these policies should contact the chief editor of the journal. In cases where editors are unable to resolve a complaint, the journal may refer the matter to the authors' funding institution and/or publish a formal statement of correction, attached online to the publication, stating that readers have been unable to obtain necessary materials to replicate the findings.

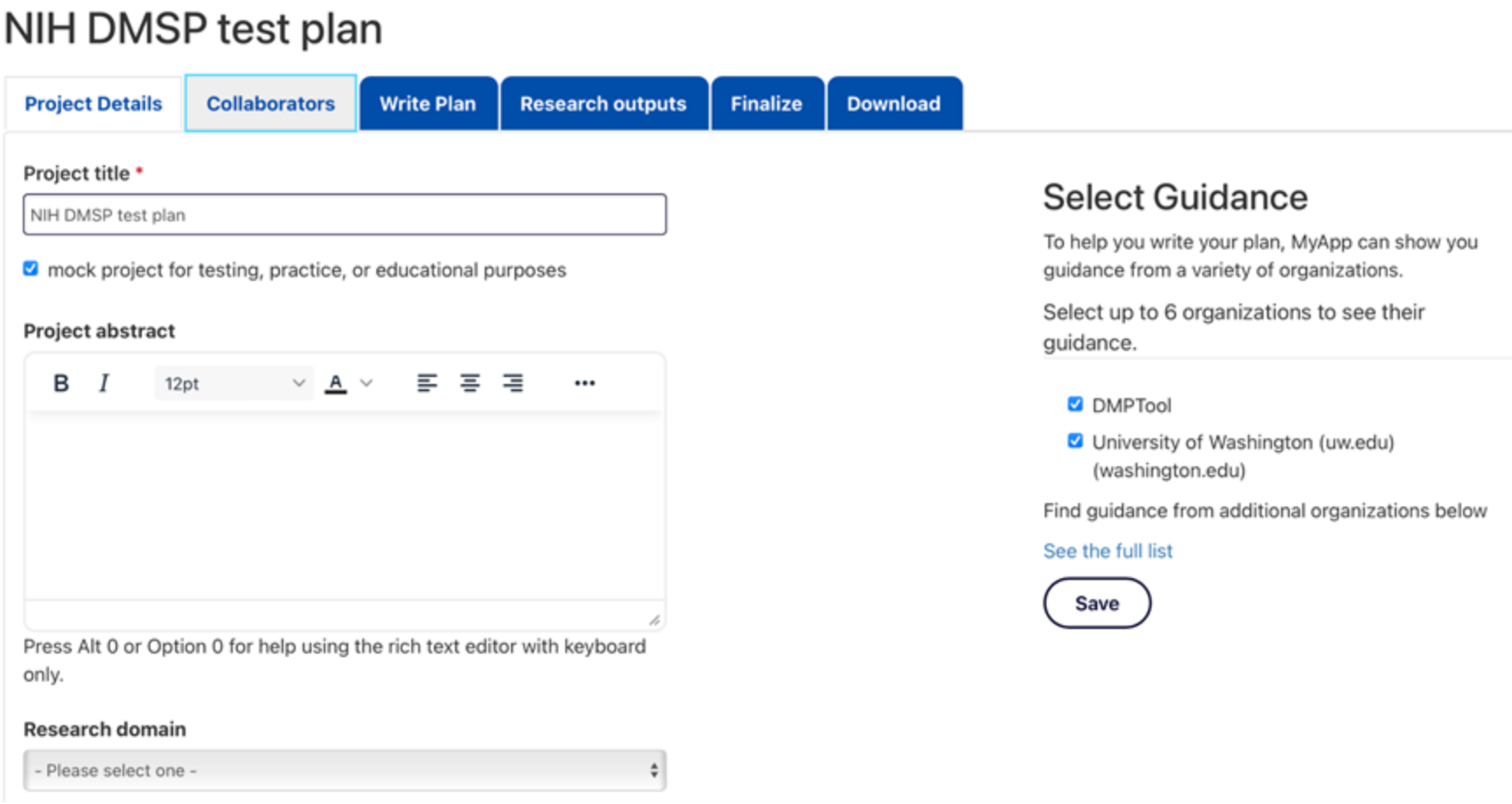
NIH DMSP Resources



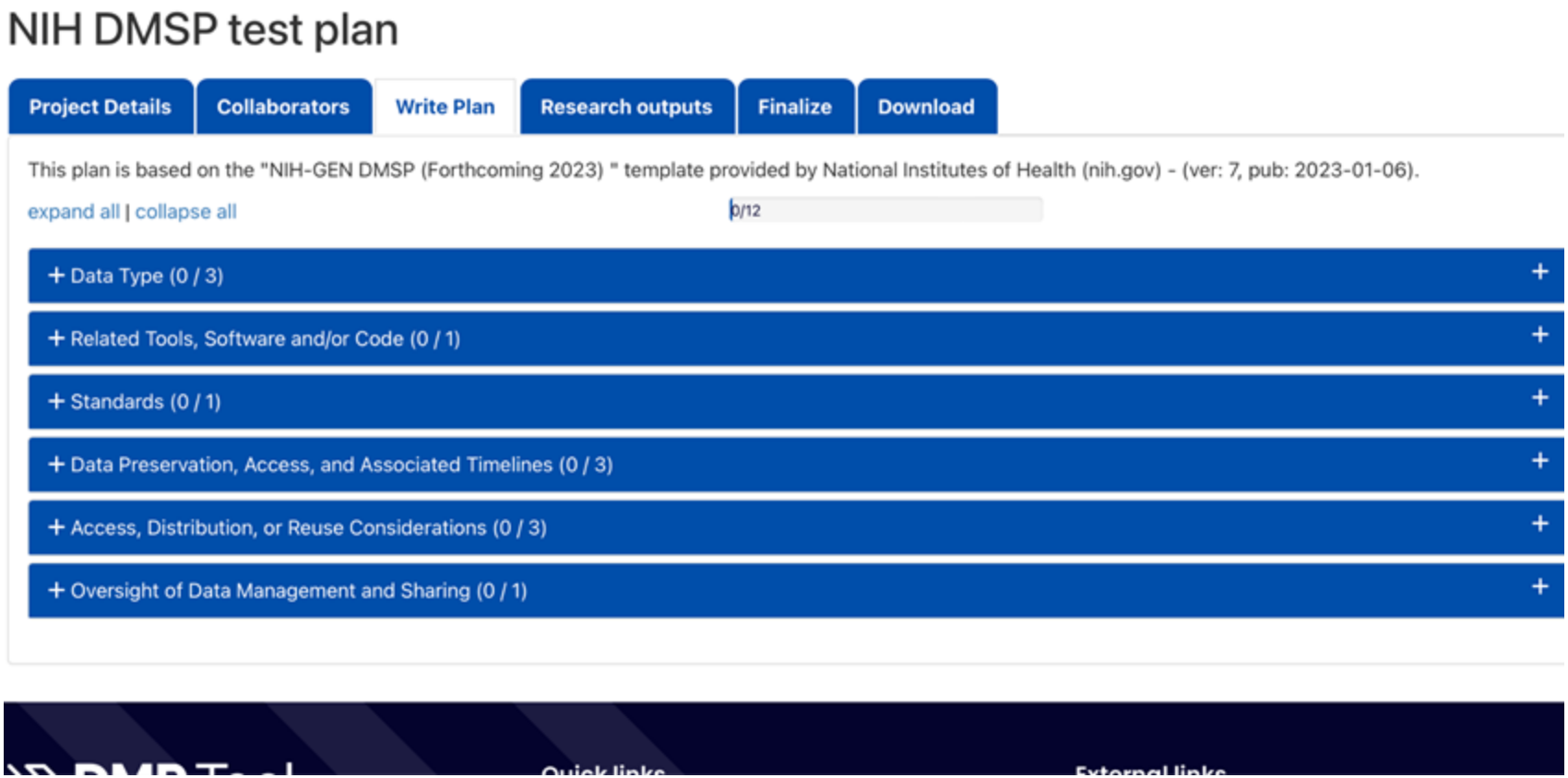
NIH DMSP Resources

- Example DMPs
- DMPTool. Provides text-based templates, generates a 2-page text document.
- UW membership with data repository Dryad, free to UW researchers to use to openly share data, and one of NIH's recommended generalist repositories.
- Qualitative Data Repository (trial)

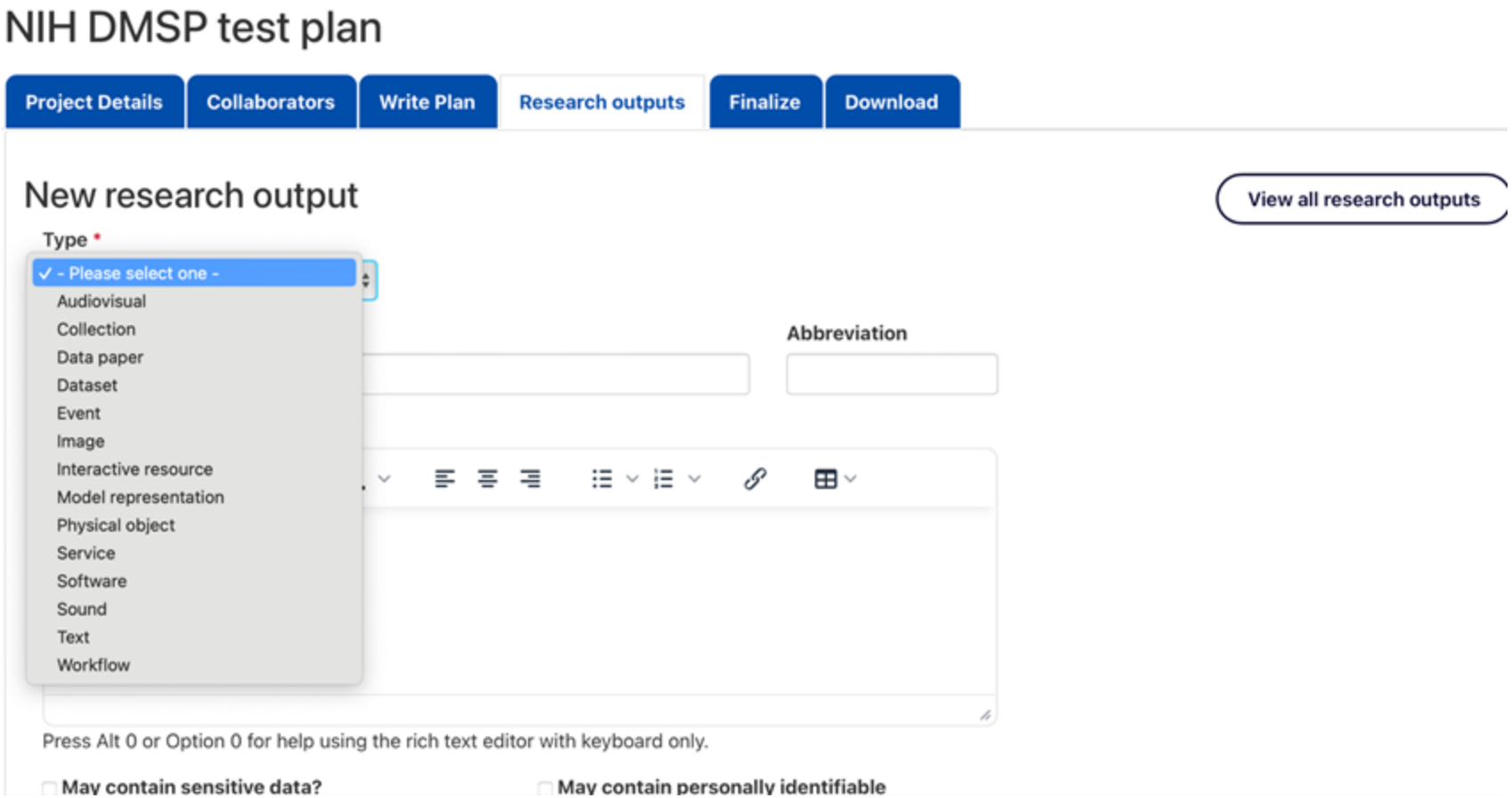
DMPTool


NIH DMSP test plan
Project Details
Collaborators
Write Plan
Research outputs
Finalize
Download
Project title *
NIH DMSP test plan
mock project for testing, practice, or educational purposes
Project abstract
12pt
Press Alt 0 or Option 0 for help using the rich text editor with keyboard only.
Research domain
- Please select one -
Select Guidance
To help you write your plan, MyApp can show you guidance from a variety of organizations.
Select up to 6 organizations to see their guidance.
DMPTool
University of Washington (uw.edu) (washington.edu)
Find guidance from additional organizations below
See the full list
Save

DMPTool


NIH DMSP test plan
Project Details
Collaborators
Write Plan
Research outputs
Finalize
Download
This plan is based on the "NIH-GEN DMSP (Forthcoming 2023) " template provided by National Institutes of Health (nih.gov) - (ver: 7, pub: 2023-01-06).
expand all | collapse all
0/12
+ Data Type (0 / 3)
+ Related Tools, Software and/or Code (0 / 1)
+ Standards (0 / 1)
+ Data Preservation, Access, and Associated Timelines (0 / 3)
+ Access, Distribution, or Reuse Considerations (0 / 3)
+ Oversight of Data Management and Sharing (0 / 1)

DMPTool


NIH DMSP test plan
Project Details
Collaborators
Write Plan
Research outputs
Finalize
Download
New research output
View all research outputs
Type *
- Please select one -
Audiovisual
Collection
Data paper
Dataset
Event
Image
Interactive resource
Model representation
Physical object
Service
Software
Sound
Text
Workflow
Abbreviation
Press Alt 0 or Option 0 for help using the rich text editor with keyboard only.
May contain sensitive data?
May contain personally identifiable

DMPTool

UW provides access to DMPTool, which has a number of funder templates.

- When you log in, **select University of Washington** as your research institution.
- Log in with your **NetID** and create your **profile.**
- Click "Create New DMP" **OR** copy an existing DMP.

Repository Selection

Selecting a Data Repository

- **For some programs and types of data, NIH and/or Institute, Center, Office (ICO) policy(ies) and funding opportunities identify particular data repositories (or sets of repositories) to be used to preserve and share data.**
  - For data generated from research subject to such policies or funded under such opportunities, researchers should use the designated data repository(ies).
- **For data generated from research for which no data repository is specified by NIH, researchers are encouraged to select a data repository that is appropriate for the data generated from the research project.** Be sure to consult the list of desirable characteristics and the following guidance:
  - Primary consideration should be given to data repositories that are discipline or data-type specific to support effective data discovery and reuse. For a list of NIH-supported repositories, visit Repositories for Sharing Scientific Data.
  - If no appropriate discipline or data-type specific repository is available, researchers should consider a variety of other potentially suitable data sharing options:
    - Small datasets (up to 2 GB in size) may be included as supplementary material to accompany articles submitted to PubMed Central (instructions).
    - Data repositories, including generalist repositories or institutional repositories, that make data available to the larger research community, institutions, or the broader public.
    - Large datasets may benefit from cloud-based data repositories for data access, preservation, and sharing.

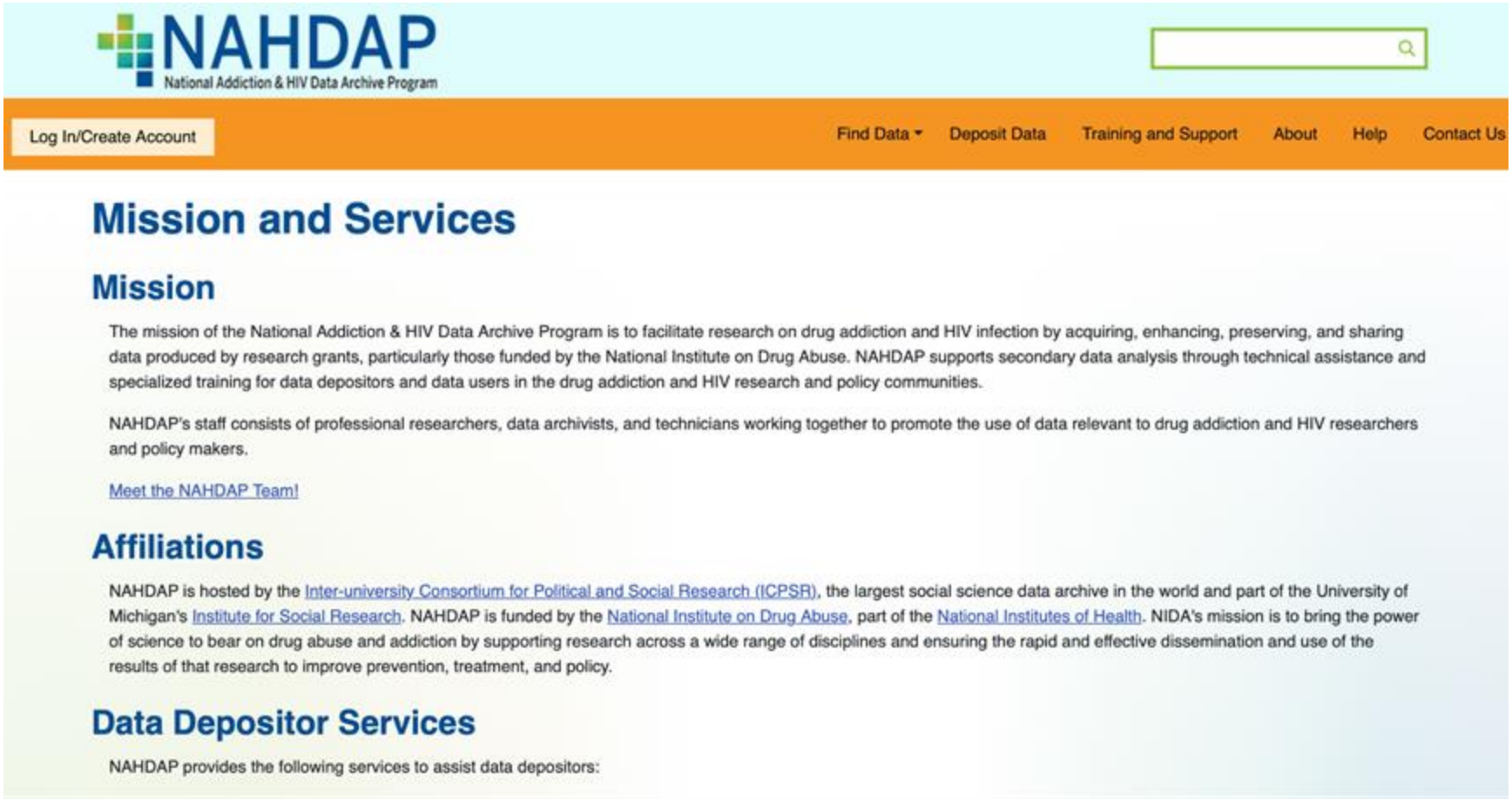
> See Repositories for Sharing Scientific Data for a listing of NIH-supported data repositories.

Desirable Characteristics for All Data Repositories

Where to Share

- **National repositories** like the National Center for Biotechnology Information or one from the NIH list of approved sharing repositories
- **Community-sponsored websites** like the Neuroscience Information Framework
- An **generalist repository**, such as UW's Dryad or QDR

Example repository: NAHDAP



NAHDAP
National Addiction & HIV Data Archive Program

Log In/Create Account

Find Data | Deposit Data | Training and Support | About | Help | Contact Us

Deposit Data

DEPOSIT DATA

- **GOT DATA? We Want To Hear From You**
- **WHY SHARE DATA WITH NAHDAP?**
- **PREPARING DATA FOR DEPOSIT?**
- **IRBS AND DATA SHARING**

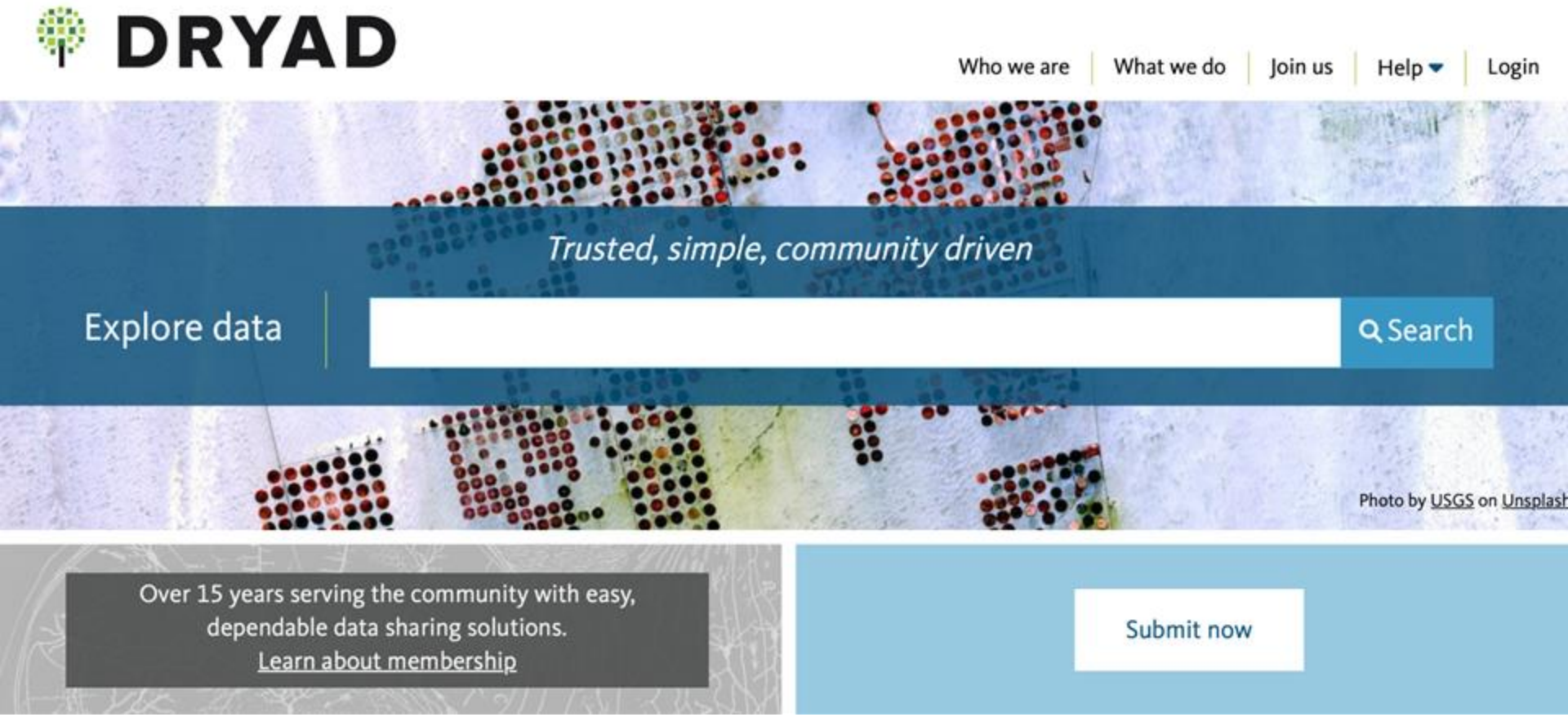
NAHDAP's mission is to preserve deposited files in perpetuity. Our online deposit form provides a secure upload of files and establishes the terms and conditions of the data transfer.

Data Deposit Form

To complete a data deposit, click on the "Data Deposit Form" button above. Please make sure that "NAHDAP" appears in the "Archive" drop-down menu so that your data is archived with us. Most fields are self-explanatory but contact us at nahdap@icpsr.umich.edu if you have any questions.

NAHDAP follows ICPSR's standard model for preparing data. Information about how ICPSR prepares data for public release is

Dryad


DRYAD
Who we are
What we do
Join us
Help
Login
Trusted, simple, community driven
Explore data
Search
Photo by USGS on Unsplash
Over 15 years serving the community with easy, dependable data sharing solutions.
Learn about membership
Submit now

Dryad

1. Login with your ORCID ID

2. Describe your Data

3. Data Types

Dryad accepts many different types of data:

- If submitting human subjects data, makes sure your data is anonymized and follows both legal and ethical guidelines.
- All data deposited with Dryad must be complete, and open to the public.
- All data must be compatible with the **Creative Commons Zero license**. Find out more about Creative Commons licenses **here**.

Dryad

4. Data Curation

Dryad curates (reviews) and then publishes your data. Select the *Private for Peer Review* check box if you want to suspend data publication until after the peer review process is complete.

5. Data Publication

Dryad notifies you once your data is published and provides you with a permanent DOI (digital object identifier) you can use to cite your data. You can update and re-version your data set at any time.

What to Share

- Raw data
- Analyzed data
- PII/human subjects
- Anonymization

Data preparation

- Protecting Participant Privacy When Sharing Scientific Data (NIH)
- Data Enhancement (ICPSR)
  - Dealing with confidential information
- ICPSR Guide to Social Science Data Preparation and Archiving
  - long (texty) page with 11 steps to data prep

Extra Credit

- UW's OA policy
- Open Access @ UW
- How do I make my articles open?

Related: UW Reproducibility and Open Research group

Thank you

Jenny Muilenburg
jmuil@uw.edu

Link to slides

Support for Authors