

---

---

# Data Management Plans - What You Need to Know

— Michele Gibney, University Libraries  
Barbara Sasso, Office of Research  
and Sponsored Programs —

---

---

<https://scholarlycommons.pacific.edu/plw/2020-2021/fall/4/>

# Introductions

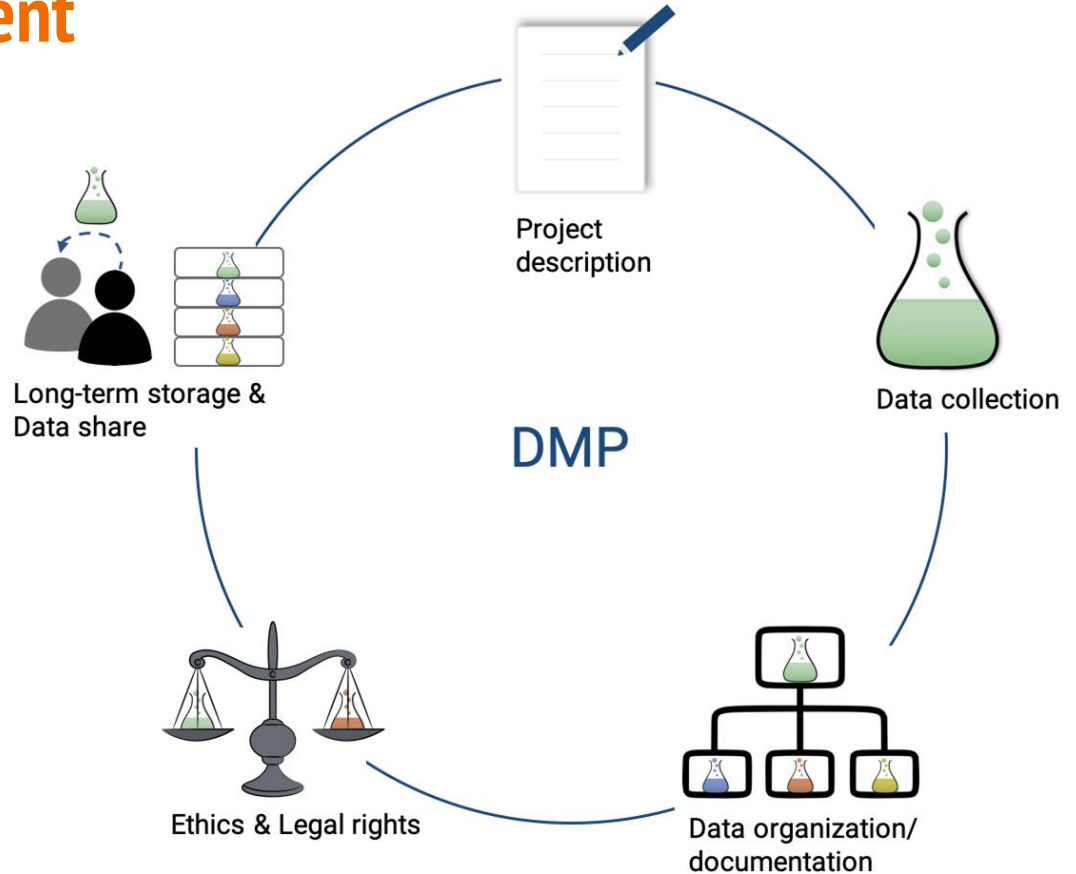
Michele Gibney, University Libraries, [mgibney@pacific.edu](mailto:mgibney@pacific.edu)

Barbara Sasso, Office of Research and Sponsored Programs,  
[bsasso@pacific.edu](mailto:bsasso@pacific.edu)

**And you?**

# What is a data management plan (DMP)?

1. Description
2. Collection
3. Organization
4. Ethics
5. Storage



# Why does it matter?

- Grant funding requirements
- Journals requiring the research data alongside the article/study
  - Increase impact and visibility
- Reproducibility
  - Maximize transparency, accountability and scrutiny of research findings
- Enable reuse and new research projects

# Grant Compliance Checkers

The screenshot shows the Sherpa Juliet website. At the top, there is a dark blue header with the Jisc logo and navigation links for Digital Resources and Open Access. Below this is a teal banner with the title "Sherpa Juliet" and a secondary navigation bar with buttons for Browse, Search, Statistics, Our APIs, Suggest, and Admin. The main content area features a white box titled "Research Funders' Open Access Policies" with a sub-header "Sherpa Juliet enables researchers and librarians to see funders' conditions for open access publication." Below this is a search bar with the placeholder text "Search for a funder policy" and a "Search" button. A paragraph of text explains that SHERPA Juliet is a searchable database of up-to-date information on funders' policies. At the bottom, there are three service boxes: "Open access services from Jisc", "SHERPA Services", and "Managing open access costs".

Jisc Digital Resources · Open Access

## Sherpa Juliet

Browse Search Statistics Our APIs Suggest Admin

### Research Funders' Open Access Policies

Sherpa Juliet enables researchers and librarians to see funders' conditions for open access publication.

Search for a funder policy  Search

SHERPA Juliet is a searchable database and single focal point of up-to-date information concerning funders' policies and their requirements on open access, publication and data archiving. [Read more...](#)

**SERVICES** Open access services from Jisc  
Services to support open access

**SERVICE** SHERPA Services  
Helping authors and institutions make informed and confident decisions in open access publication and compliance.

**GUIDE** Managing open access costs  
A guide from Jisc

<http://v2.sherpa.ac.uk/juliet/>

The screenshot shows the SPARC website. The top navigation bar includes the SPARC logo and links for Who We Are, What We Do, Why It Matters, and Become a Member. The main heading is "Browse Data Sharing Requirements by Federal Agency". Below this is a paragraph explaining that the resource is a joint project of SPARC and Johns Hopkins University Libraries, and it provides a link to download the full data set. An email address for corrections is also provided. A red button labeled "VIEW ARTICLE SHARING POLICIES" is visible. Below the main content is a search bar with the placeholder text "Search for an agency...". At the bottom, there is a grid of logos for various federal agencies, including AHRQ, ASPR, CDC, Department of Defense, Department of Education, Department of Energy, Department of Transportation, FDA, NASA, and National Institute.

SPARC Who We Are What We Do Why It Matters Become a Member

## Browse Data Sharing Requirements by Federal Agency

This community resource for tracking, comparing, and understanding both current and future U.S. federal funder research data sharing policies is a joint project of SPARC & Johns Hopkins University Libraries. Click the icons below to select up to three agencies to view or compare. Click [here](#) to download the full data set.

Email corrections to [nick@sparcopen.org](mailto:nick@sparcopen.org)

[VIEW ARTICLE SHARING POLICIES](#)

Search for an agency...

AHRQ ASPR CDC DEPARTMENT OF DEFENSE DEPARTMENT OF EDUCATION DEPARTMENT OF ENERGY DEPARTMENT OF TRANSPORTATION FDA NASA NATIONAL INSTITUTE

<http://researchsharing.sparcopen.org/data>

# Funder Requirements: NIH example



## Sherpa Juliet

Browse Search Statistics Our APIs

### National Institutes of Health

#### ^ Funder Information

|             |   |
|-------------|---|
| Funder Name | National Institutes of Health (NIH) [English]                   |
| URL         | <a href="http://www.nih.gov/">http://www.nih.gov/</a> [English] |
| Identifiers | FundRef DOI: 10.13039/1000000002                                |
| Country     | United States of America  |

#### ^ Requires Open Access Archiving

|                     |   |
|---------------------|---|
| Requirement         | National Institutes of Health <b>requires</b> Open Access Archiving                                       |
| What to archive     | Peer-reviewed publications  |
| Publication version | Author's final version  |
| When to archive     | When accepted for publication   |
| Permitted Embargo   | 12 months   |
| Where to archive    | Named repository  |
| Named Repositories  | PubMed Central <a href="http://www.ncbi.nlm.nih.gov/pmc/">http://www.ncbi.nlm.nih.gov/pmc/</a> (Required) |

#### ^ Requires Open Data Archiving

|                                     |  |
|-------------------------------------|--|
| Requirement                         | National Institutes of Health <b>requires</b> Open Data Archiving  |
| Types of Data                       | Research Data<br>Supporting Documentation  |
| When to archive                     | Within a reasonable time after completion of the work  |
| Where to archive                    | Any appropriate repository (Required)  |
| Named Repositories                  | NIH Databases <a href="http://www.nlm.nih.gov/databases/">http://www.nlm.nih.gov/databases/</a> (Example)  |
| Effective for all new projects from | 1 October 2003   |
| Special Conditions                  | Applies to applications seeking \$500,000 plus in direct costs within any year of the project period. Include a data sharing plan within application, Sharing of data no later than publication of final results   |
| Policy links                        | NIH Data Sharing Policy [Policy]: <a href="http://grants.nih.gov/grants/policy/data_sharing/Implementation_Guidance_Guide/FAQ/">http://grants.nih.gov/grants/policy/data_sharing/Implementation_Guidance [Guide/FAQ]:</a><br><a href="http://grants.nih.gov/grants/policy/data_sharing/data_sharing_guidance.htm">http://grants.nih.gov/grants/policy/data_sharing/data_sharing_guidance.htm</a> |

# Funder Requirements: NSF example



## Sherpa Juliet

Browse Search Statistics Our APIs

### National Science Foundation

#### ^ Funder Information

|             |  |
|-------------|--|
| Funder Name | National Science Foundation (NSF) [English]  |
| URL         | <a href="http://www.nsf.gov/">http://www.nsf.gov/</a> [English]                                    |
| Identifiers | FundRef DOI: <a href="https://doi.org/10.13039/1000000001">https://doi.org/10.13039/1000000001</a> |
| Country     | United States of America   |

#### ^ Requires Open Access Archiving

|                     |   |
|---------------------|---|
| Requirement         | National Science Foundation <b>requires</b> Open Access Archiving   |
| What to archive     | Conference papers<br>Peer-reviewed publications   |
| Publication version | Publisher's version (Optional)<br>Author's final version (Optional)   |
| When to archive     | At the earliest possible opportunity  |
| Permitted Embargo   | 12 months   |
| Where to archive    | Named repository  |
| Named Repositories  | Public Access Gateway for Energy and Science (PAGES) <a href="http://www.osti.gov/pages/">http://www.osti.gov/pages/</a> (Required) |
| Metadata Record     | Metadata must be deposited at the date of publication   |

#### ^ Requires Open Data Archiving

|                                     |  |
|-------------------------------------|--|
| Requirement                         | National Science Foundation <b>requires</b> Open Data Archiving  |
| Types of Data                       | Research Data<br>Specimens and Samples<br>Associated Metadata<br>Program Code  |
| When to archive                     | Within a reasonable time after completion of the work  |
| Where to archive                    |  |
| Effective for all new projects from | 18 January 2011  |
| Data Access Cost                    | Costs of access provision may be recovered on a not-for-profit basis.  |
| Special Conditions                  | Applies to primary datam samples, physical colletions and supporting materials created or gatehred in the course of the work, Encouraged to share software and inventions, Data Management Plan must detail the types of data to be shared, the standards of data and metadata format and content, the policies for access and sharing of data, the policies for provisions of re-sue and re-distribution, as well as plans for archiving, Data should acknowledge support of NSF and award number, Applies to all approved NSF Individual Research and Development plans for NSF employees and Intergovernmental Personnel Act assignes |
| Policy links                        | Dissemination and Sharing of Research Results [Policy]:<br><a href="http://www.nsf.gov/bfa/dias/policy/dmp.jsp">http://www.nsf.gov/bfa/dias/policy/dmp.jsp</a>   |

# Examples

## Pacific

Boilerplate describing Scholarly Commons

Writing guides from ORSP Research  
Development

[Guidance from NIH Office of Extramural  
Research](#)

## External

- [Example of NIH Data Sharing Plans](#)
  - Three short examples of data-sharing plans from the NIH website
  - [Create a Resource Sharing Plan](#)
  
- [NSF Data Sharing Requirements](#)
  - Requirements by Directorate or other NSF unit



# Data Repositories - Scholarly Commons

Pacific branded  
Unlimited storage  
Any file type  
Excellent SEO  
Customizable display &  
metadata  
FAIR Principles

The screenshot shows the University of the Pacific Scholarly Commons website. The header features the university's name and logo on the left, and "Scholarly Commons" on the right. A navigation bar includes links for HOME, ABOUT, FAQ, and MY ACCOUNT. The main content area is divided into several sections:

- SEARCH:** Includes a search input field with a "Search" button, a dropdown menu for "In this repository", and options for "Advanced Search" and "Notify me via email or RSS".
- BROWSE:** Lists categories such as "Collections", "Disciplines", and "Authors".
- AUTHOR CORNER:** Contains links for "Author FAQ" and "Submit Research".
- SCHOLARLY COMMONS ISSN:** 2 5 7 2 - 6 8 0 3
- Browse Research and Scholarship:** A section with a "Follow" button and a list of links: "College, School, Department, or Center", "Holt-Atherton Special Collections", "Pacific Theses and Dissertations", "Journals", and "Pacific Expertise".
- Image:** A photograph of a University of the Pacific sign in front of a garden of colorful roses.
- Description:** A paragraph explaining that Scholarly Commons is a service of the University of the Pacific Libraries, providing access to research, scholarship, and creative works from various departments and centers. It also mentions the publication of original knowledge in journals, conferences, and OER.
- At a Glance:** A section with three sub-sections: "Top 10 Downloads All time", "Recent Additions 20 most recent additions Activity by year", and "Item of the Day".
- Figure:** A circular sunburst chart titled "Explore works in 805 disciplines". Below the chart is a link that says "View Larger →".

# FAIR Principles

1. Findable
2. Accessible
3. Interoperable
4. Reusable

<https://www.go-fair.org/fair-principles/>  
<https://www.nature.com/articles/sdata201618>

The screenshot shows the GO FAIR website header with the logo and navigation menu. The main content area features a large heading 'FAIR Principles' and a list of principles on the left. The right side contains an introductory paragraph and detailed descriptions for each principle.

**GO FAIR** FAIR Principles Implementation Networks News Events Resources About GO FAIR Q

## FAIR Principles

Home > FAIR Principles

- > **FAIR Principles**
  - > **F1: (Meta) data are assigned globally unique and persistent identifiers**
  - > **F2: Data are described with rich metadata**
  - > **F3: Metadata clearly and explicitly include the identifier of the data they describe**
  - > **F4: (Meta)data are registered or indexed in a searchable resource**
  - > **A1: (Meta)data are retrievable by their identifier using a standardised**

In 2016, the '**FAIR Guiding Principles for scientific data management and stewardship**' were published in *Scientific Data*. The authors intended to provide guidelines to improve the findability, accessibility, interoperability, and reuse of digital assets. The principles emphasise machine-actionability (i.e., the capacity of computational systems to find, access, interoperate, and reuse data with none or minimal human intervention) because humans increasingly rely on computational support to deal with data as a result of the increase in volume, complexity, and creation speed of data.

**Findable**  
The first step in (re)using data is to find them. Metadata and data should be easy to find for both humans and computers. Machine-readable metadata are essential for automatic discovery of datasets and services, so this is an essential component of the **FAIRification process**.

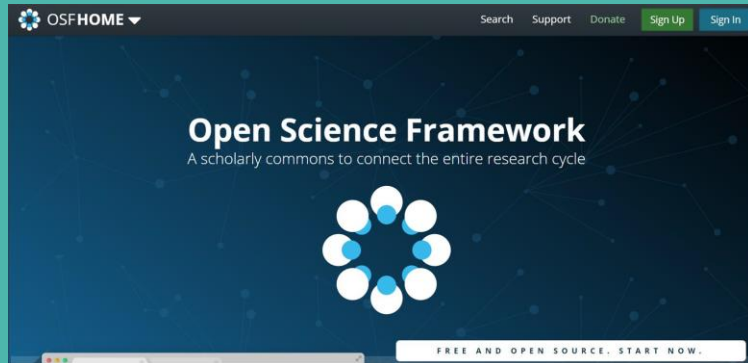
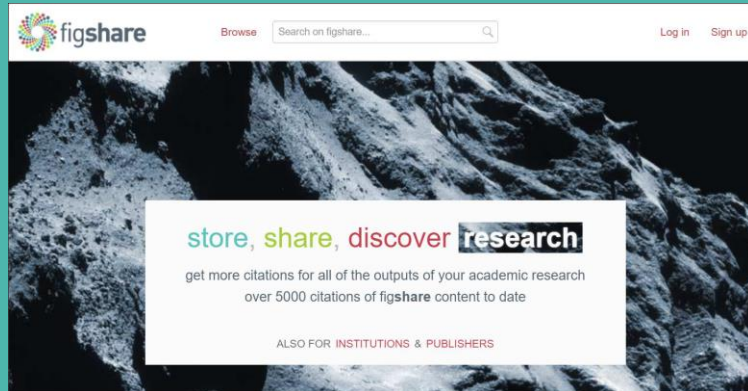
- F1. (Meta)data are assigned a globally unique and persistent identifier**
- F2. Data are described with rich metadata (defined by R1 below)**
- F3. Metadata clearly and explicitly include the identifier of the data they describe**
- F4. (Meta)data are registered or indexed in a searchable resource**

# Data Repositories - External

Figshare: <https://figshare.com/>

OSF: <https://osf.io/>

Re3data:  
<https://www.re3data.org/>



# DMP Tool

<https://dmptool.org/>

# Additional DMP Resources

<https://dataoneorg.github.io/Education/>

|   |                                |                                 |                                    |
|---|--------------------------------|---------------------------------|------------------------------------|
| 01.<br>Why Data Management                | 02.<br>Data Sharing            | 03.<br>Data Management Planning | 04.<br>Data Entry and Manipulation |
| 05.<br>Data Quality Control and Assurance | 06.<br>Protecting Your Data    | 07.<br>Metadata                 | 08.<br>Data Citation               |
| 09.<br>Analysis and Workflows             | 10.<br>Legal and Policy Issues | Best Practices Analyze          | Best Practices Assure              |

<https://scholarlycommons.pacific.edu/plw/2020-2021/fall/4/>

# QUESTIONS?

**Michele Gibney, University Libraries, [mgibney@pacific.edu](mailto:mgibney@pacific.edu)**  
**Barbara Sasso, Office of Research and Sponsored Programs,**  
**[bsasso@pacific.edu](mailto:bsasso@pacific.edu)**