

anSRS4u

ANSWERS FOR YOU

Creating Research Data Management Plans Using DMPTool

Presented by **Sponsored Research Services**



TEXAS A&M UNIVERSITY
Division of Research

Creating Research Data Management Plans Using DMPTool

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TAMU Sponsored Research Services

Goals for Today

1. Understand the basic principles of research data management;
2. Be aware of data management planning tools, support and guidance which are available to academic researchers;
3. Understand the different requirements of funding agencies;
4. Be able to use DMPTool to develop a data management plan, and maintain it through the course of your research.

Overview

- Why is data management important?
- What is a data management plan?
- Different requirements of funding agencies
- Use the DMPTool

Overview

- **Why is data management important?**
- What is a data management plan?
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Research Scenario

You have completed one of your research studies and published a couple of papers to disseminate your research results. Your papers have been cited widely in the research literature by others who have built upon your findings. However, three years later another researcher has accused you of having falsified the data.

Why is data management important?

Data management is a set of practices across the research lifecycle that ensures:

- Compliance for grant requirements
- Research integrity and reproducibility
- Research efficiency and accuracy

Data Management & Sharing Mandates

- Funders – NSF, NIH...
- Journals – PLOS, Nature, JDAP partners
- The White House OSTP memo (2013) – Federal agencies with over \$100 million/year in R&D must develop a plan to support public access to research

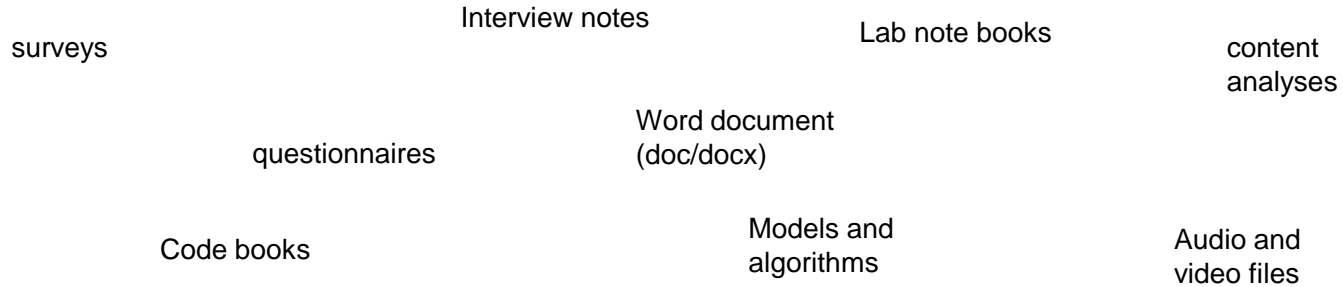


Overview

- Why is data management important?
- **What is a data management plan?**
- Different requirements of funding agencies
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What is research data?

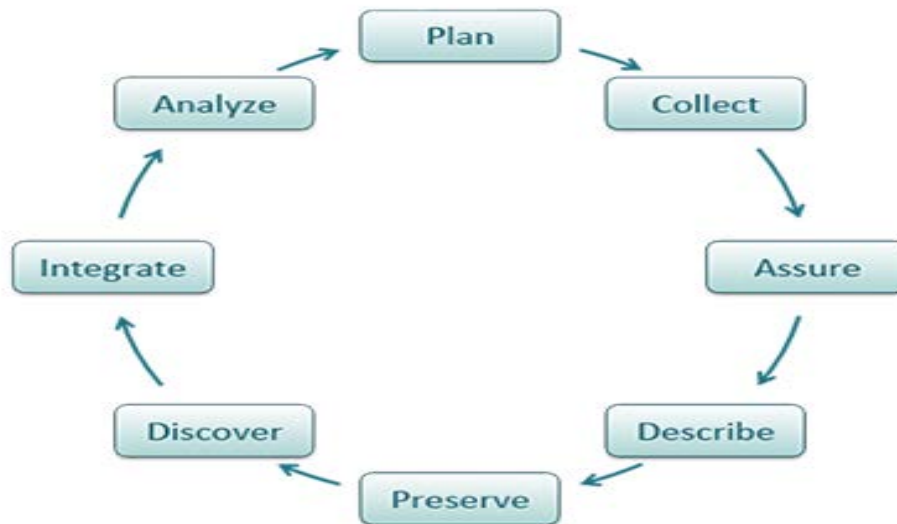
Research Data is recorded, factual material commonly accepted in the scientific community as necessary to validate research findings. (Awasthi & Tripathi, 2019)



What is Research Data Management

Research data management (RDM) is about handling research data effectively and appropriately throughout **the life of a research project and beyond**. Research data management refers to all aspects of creating, storing, sharing and archiving data and is an essential aspect of conducting responsible research.

Research Data Life Cycle



Dataone Data Life Cycle, available at <https://dataone.org/data-life-cycle>

Components of a Basic DMP

1. Describing the Research Data
2. Data Standards and Metadata
3. Data Storage and Access
4. Intellectual Property and Re-use
5. Publishing Data and Preservation

1. Describing the Research Data

Give a brief description of the data. Outline and justify your choice of format and consider the implications of data format and data volumes in terms of storage, backup and access.

2. Data Standards and Metadata

Describe the types of documentation that will accompany the data to help other users to understand and reuse it. Consider how you will capture this information and where it will be recorded. Wherever possible you should identify and use existing community standards.

3. Data Storage and Access

Consider where data will be stored and how you will control access to the data. Consider where, how, and to whom data with acknowledged long-term value should be made available.

4. Intellectual Property and Re-Use

Consider how the data may be reused. Decide which data to keep and for how long. Remember to consider any additional effort required to prepare the data for sharing and preservation, such as changing file formats.

5. Publishing Data and Preservation

Consider how datasets that have long-term value will be preserved and curated beyond the lifetime of the grant. Also outline the plans for preparing and documenting data for sharing and archiving.

FAIR Data Principles

- Findable
- Accessible
- Interoperable
- Re-useable

Overview

- Why is data management important?
- What is a data management plan?
- **Different requirements of funding agencies**
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National Science Foundation



- Beginning January 18, 2011 proposals submitted to NSF must include a supplementary document of no more than two pages labeled "Data Management Plan" (DMP)
- 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 the NSF Proposal and Award Policies and Procedures Guide (PAPPG) apply.

Institute for Education Sciences



- DMP should not exceed five pages and is not be counted towards the Project Narrative's page limit
- Human Subjects and Privacy Issues
- Resource: March 2022, document, Sharing Study Data: A Guide for Education Researchers <https://ies.ed.gov/ncee/pubs/2022004/>



Department of Energy



- Requirements may vary by solicitation
 - Required as part of the proposal
 - Required within 90 days of award notification
- At a minimum, DMPs must describe how data sharing and preservation will enable validation of results, or how results could be validated if data are not shared or preserved.
- The published article should indicate how these data can be accessed.
- DMPs must protect confidentiality, personal privacy, Personally Identifiable Information, and U.S. national, homeland, and economic security; recognize proprietary interests, business confidential information, and intellectual property rights; avoid significant negative impact on innovation, and U.S. competitiveness

USDA - National Institute of Food and Agriculture (NIFA)



- Required document for Research, Education and Extension projects
- Limited to two pages and does not count toward the page limits for the project narrative
- Some programs may have different standards for DMPs and those will be outlined in the specific request for applications
- Plan Components: Expected Data type, Data format, Data storage and preservation, Data sharing, protection, and public access, Roles and responsibilities

NIH Current Policy – Data Sharing



- Under 2003 policy data sharing plan required for Funding agreements of \$500,000 or more per year in direct costs
- Genomic Data Submission and Release Expectations
 - NIH's GDS policy sets forth specific expectations for the submission of data according to the type of data and level of processing.
 - Individual NIH Institutes and Centers (IC) may have additional expectations or requirements for genomic data sharing
- Plans should be included in the Resource Sharing section of the application

GET READY: New NIH Policy on Data Management and Sharing, Effective January 25, 2023



- NIH requires researchers to submit a Data Management and Sharing Plan. This policy applies to all research, funded or conducted in whole or in part by NIH, that results in the generation of scientific data.
- Plan will be part of the budget justification section.
- Plan will be two pages or less
- NIH Data Sharing webpage <https://sharing.nih.gov>
- Check Institute/center for specified data repositories

Overview

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What is DMPTool

The DMPTool is an online platform guiding DMP development according to the requirements of specific funding agencies. Texas A&M University researchers log in with their NetID and passwords.

DMPTool for Data Management Plans

- Helps researchers meet requirements of NSF and other U.S. funding agencies.
- Guides researchers through the process of creating a data management plan.
- Is available to everyone.
- Provides additional help for researchers at DMPTool partner institutions

Sign in

Go to <https://dmptool.org/> and sign in through 'Your Institution'.

DMPTool
Build your Data Management Plan

Welcome to the DMPTool
Create data management plans that meet institutional and funder requirements.

Sign in options

Option 1: If your institution is affiliated with DMPTool.
Your Institution

- or -

Option 2: If your institution is not affiliated with DMPTool.
Email address

- or -

Option 3: If not affiliated and you need an account.
Create an account

DMPTool by the Numbers

Icon	Value	Label	More
	51,663	Users	
	48,782	Plans	More
	283	Participating Institutions	More

Top Templates

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Digital Curation Centre
NIH-GEN: Generic
Template USP - Baseado no DCC
Template USP - Minimo
NSF-SBE: Social, Behavioral, Economic Sciences
[More](#)

Select TAMU from the list of institutions

Welcome to the DMPTool
Create data management plans that meet your needs

Learn Sign in Language

Get started




Look up your institution here

Texas A&M University

Go

Or see the full list of participating institutions
Institution not in the list? Create an account with any email address

DMPTool by the Numbers

		
51,653	48,770	283
Users	Plans	Participating Institutions
More	More	More

Top Templates

- Digital Curation Centre
- NIH-GEN: Generic
- Template USP - Baseado no DCC
- Template USP - Minimo
- NSF-SBE: Social, Behavioral, Economic Sciences

[More](#)

Sign in using your TAMU credentials



Central Authentication Service
DIVISION OF INFORMATION TECHNOLOGY

[Activate Your NetID](#)

LOG IN

Current Users

NetID or Email Address

Password

Next

[Forgot your password?](#)

[New Student or Employee? Activate your NetID](#)

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Create a plan

You can create a test DMP to access the DMP template.

Texas A&M University

[TAMU Libraries DMP Guidance](#)

[TAMU Data Management Plan Help](#)

[My Dashboard](#) [Create plan](#) [Admin Features](#) ▾

✔ Notice: Successfully signed in

My Dashboard




The table below lists the plans that you have created, and that have been shared with you by others. You can edit, share, download, make a copy, or remove these plans at any time.

Project Title	Template	Edited	Role	Test	Visibility	Shared	
meta-analysis- self-regulation	Digital Curation Centre	05-18-2020	Owner	<input type="checkbox"/>	Private	No	Actions

Create plan

Texas A&M University Plans

The table below lists the plans that users at your organization have created and shared within your organization. This allows you to download a PDF and view their plans as samples or to discover new research data.

Project Title	Template	Owner	Updated	Download
The Choice is Yours: Using Agricultur...	Digital Curation Centre	b-boyd@tamu.edu	03-06-2020	
Soil Security 2	USDA - NIFA: National Institute of Food and Agriculture	cmorgan@tamu.edu	06-11-2017	
Root Trait Genetic Characterization	NSF-BIO: Biological Sciences (2015-)	baseball.8.8@tamu.edu	11-07-2017	

Project details

On the left, enter funder and grant information.

On the right, make sure TAMU is checked under ‘Plan guidance configuration.’

This ensures that you’ll see step-by- step guidance specifically for TAMU researchers as you write your plan. Optionally, you can add other guides as well by clicking ‘See the full list.’

Texas A&M University

DMPTool
Build your Data Management Plan

[Request a DMP Consultation](#)
[TAMU Libraries DMP Guidance](#)
[TAMU DMPTool Administrator](#)

[My Dashboard](#) [Create plan](#) [Admin Features](#)

test

Project Details | Collaborators | Write Plan | Research Outputs | Request feedback | Download | Finalize / Publish

Project title
test

☐ mock project for testing, practice, or educational purposes

Project abstract
B I [formatting icons]

Research domain
Please select one

Project Start **Project End**
09/28/2021 09/28/2021

☐ Research outputs may have ethical concerns

Funder
Begin typing to see a list of suggestions.

Select Guidance
To help you write your plan, DMPTool can show you guidance from a variety of organizations.
Select up to 6 organizations to see their guidance.

☐ DMPTool
☐ Loyola Marymount University (LMU)
☒ Texas A&M University

Find guidance from additional organizations below
[See the full list](#)


[Save](#)

Collaborators

On this page, you could add collaborators of the project.

[Learn](#) [Xu, Zhihong](#) [Language](#)

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test

[Project Details](#) [Collaborators](#) [Write Plan](#) [Research Outputs](#) [Request feedback](#) [Download](#) [Finalize / Publish](#)

Project Contributors

Please list the project's Principal Investigator(s) and those responsible for data management.

No contributors have been defined.

[Add a contributor](#)

DMP Collaborators

Invite specific people to read, edit, or administer your plan. Invitees will receive an email notification that they have access to this plan.

Email address	Permissions	
xuzhihong@tamu.edu	Owner	

Invite collaborators

* Email

* Permissions

☐ Co-owner

☐ Editor

☐ Read only

[Submit](#)

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Write Plan

Here you will see an expandable section for each topic covered in your plan.

Click the + to see guidance and enter text.

The screenshot shows the DMPTool web application interface. At the top, the browser address bar shows 'dmptool.org'. The header includes the Texas A&M University logo, the DMPTool logo with the tagline 'Build your Data Management Plan', and links for 'Learn', 'Xu, Zhihong', and 'Language'. A sidebar on the right offers options to 'Request a DMP Consultation', 'TAMU Libraries DMP Guidance', and 'TAMU DMPTool Administrator'. The main navigation bar contains 'My Dashboard', 'Create plan', and 'Admin Features'. The 'test' plan is selected, and the 'Write Plan' tab is active. Below the tabs, a message states: 'This plan is based on the "Digital Curation Centre" template provided by Digital Curation Centre (DCC) - (ver: 2, pub: 2018-05-29). expand all | collapse all'. A progress indicator shows '0/13'. The main content area features a list of seven expandable sections, each with a blue header and a '+' icon: 'Data Collection (0 / 2)', 'Documentation and Metadata (0 / 1)', 'Ethics and Legal Compliance (0 / 2)', 'Storage and Backup (0 / 2)', 'Selection and Preservation (0 / 2)', 'Data Sharing (0 / 2)', and 'Responsibilities and Resources (0 / 2)'. The footer contains links for 'About', 'Terms of use', 'Privacy statement', 'Accessibility', 'Github', and 'Contact us', along with social media icons for Twitter and LinkedIn. It also includes copyright information: 'DMPTool is a service of the University of California Digital Center of the California Digital Library. Copyright 2010-2021 The Regents of the University of California. Version: v3.3.2.' and the DMPTool logo.

Access Guidance

The text box on the right offers custom guidance about this section of your plan.

You see a DCC tab, and any other guidance you elected to add in your project details right now. There is also a TAMU tab if you chose TAMU before.

The screenshot displays the DMPTool web interface. At the top, it shows 'Texas A&M University' and the 'DMPTool' logo with the tagline 'Build your Data Management Plan'. Navigation links include 'Learn', 'Xu, Zhibong', 'Language', 'Library Libraries User Guidance', and 'TAMU DMPTool Administrator'. A secondary navigation bar contains 'My Dashboard', 'Create plan', and 'Admin Features'.

The main content area is titled 'test' and features a series of tabs: 'Project Details', 'Collaborators', 'Write Plan', 'Research Outputs', 'Request feedback', 'Download', and 'Finalize / Publish'. The 'Write Plan' tab is active.

Below the tabs, a message states: 'This plan is based on the "Digital Curation Centre" template provided by Digital Curation Centre (DCC) - (ver: 2, pub: 2018-05-29)'. There are links to 'expand all' and 'collapse all', and a '913' indicator.

The 'Data Collection (0 / 2)' section is highlighted with a blue header. Below it, a text box prompts 'What data will you collect or create?'. To the right of this text box is a panel with two tabs: 'Guidance' and 'Comments'. The 'Guidance' tab is selected, showing a 'DCC' section with the following text:

Questions to consider:

- What type, format and volume of data?
- Do your chosen formats and software enable sharing and long-term access to the data?
- Are there any existing data that you can reuse?


Give a brief description of the data, including any existing data or third-party sources that will be used, in each case noting its content, type and coverage. Outline and justify your choice of format and consider the implications of data format and data volumes in terms of storage, backup and access.

Access Comments

In the second tab beside Guidance, your collaborators can provide you comments about your DMP.

Learn Xu, Zhihong Language

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[My Dashboard](#) [Create plan](#) [Admin Features](#)


test

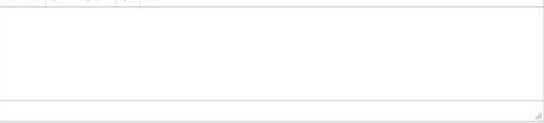
Project Details Collaborators Write Plan Research Outputs Request feedback Download Finalize / Publish

This plan is based on the "Digital Curation Centre" template provided by Digital Curation Centre (DCC) - (ver: 2, pub: 2018-05-29).
[expand all](#) | [collapse all](#) 0/13

+ Data Collection (0 / 2)


What data will you collect or create?






[Save](#)

How will the data be collected or created?







[Save](#)

Guidance Comments

Add comments to share with collaborators





[Save](#)


Guidance Comments

DCC

Research Outputs

On this page, you will be able to list your anticipated research outputs in your DMP.

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[My Dashboard](#) [Create plan](#) [Admin Features](#)

test

[Project Details](#) [Collaborators](#) [Write Plan](#) [Research Outputs](#) [Request feedback](#) [Download](#) [Finalize / Publish](#)

New research output [View all research outputs](#)

* Type
- Please select one -

* Title Abbreviation

Description

B I H1 H2 H3 H4 H5 H6 Link Table

☐ May contain sensitive data? ☐ May contain personally identifiable information?

Intended repositories

[Add a repository](#)

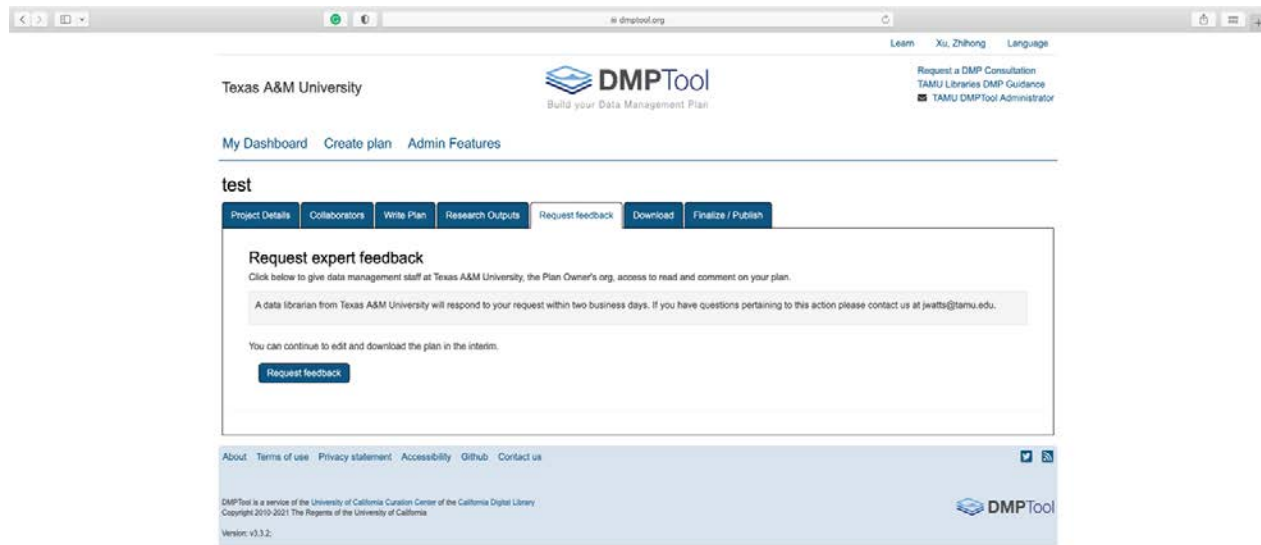
Metadata standards

[Add a metadata standard](#)

Anticipated release date Initial access level

Request feedback

On this page, you can request feedback to your DMP. The Research Data Management Services team at TAMU Libraries will try to get back to you within two business days.




Download

When you have completed all sections of your plan, the DMPTool gives you the option to export your plan as a PDF or as a DOCX file that you can edit in Word.

[Learn](#) [Xu, Zhihong](#) [Language](#)

Texas A&M University

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✉ TAMU DMPTool Administrator

[My Dashboard](#) [Create plan](#) [Admin Features](#)

test

Project DetailsCollaboratorsWrite PlanResearch OutputsRequest feedbackDownloadFinalize / Publish

Format

pdf

Download settings

Optional Plan Components

☐ project details coversheet

☒ question text and section headings

☒ unanswered questions

PDF formatting

Font

Face

Arial, Helvetica, Sans-Serif

Size (pt)

10

Margin (mm)

Top

25

Bottom

25

Left



25

Right


25

Download Plan

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Version: v3.3.2;


DMPTool

Finalize/ Publish

When you have completed all sections of your plan, you can publish your DMP when you are ready and get a DMP ID for your data management plan.

[Learn](#) [Xu, Zhihong](#) [Language](#)

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[Project Details](#) [Collaborators](#) [Write Plan](#) [Research Outputs](#) [Request feedback](#) [Download](#) [Finalize / Publish](#)

Set plan visibility

Public or organizational visibility is intended for finished plans. You must answer at least 50% of the questions to enable these options. Note: test plans are set to private visibility by default.

☒ Private: visible to me, specified collaborators and administrators at my organization
☐ Organization: anyone at my organization can view
☐ Public: anyone can view

[Save](#)

Register your plan and add to ORCID



Get a DMP ID for your data management plan.

In order to register your plan you must have completed the following:


- ✗ answered at least 50% of questions
- ✗ identified your funder
- ✗ authorized DMPTool to add works to your ORCID record via your [Third party applications page](#)
- ✓ plan is not a mock project for testing, practice, or educational purposes

Once the steps above are satisfied, a button to register your plan will appear here.

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Version: v3.3.2



DMP ID Landing Page

After receiving a DMP ID, DMPTool will generate a DMP landing page that includes high level details about the plan. For an example of a DMP ID landing page please see this [DMP](#).

References

Awasthi, S., & Tripathi, M. (2019). A Selective Review of Literature on Research Data Management in Academic Libraries. *DESIDOC Journal of Library & Information Technology*, 39(6).

The University of Edinburgh. (2020, September). *MANTRA: Research Data Management Training*. Available at: <https://mantra.edina.ac.uk/index.html>



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Thank You

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