

Responsible Stewardship of Research Data

TAMU Research Data Management Resources

Division of Research

Director of Research Data | Leslie Krueger Lkrueger@tamu.edu



TEXAS A&M
UNIVERSITY

Research data is defined by the U.S. Office of Management and Budget (OMB) Circular A-110/2CFR 215.36 as “the recorded factual material commonly accepted in the scientific community as necessary to validate research findings.”

Examples of Research Data

- research notes, laboratory notebooks, textual information, numeric information
- images, audio and video recordings, diagrams, instrumental readouts, photos, reports, publications, samples, materials
- other recorded information necessary for the reconstruction and evaluation of reported results of research.
- It also includes the protocols, charts, graphs, and other information, events and processes that lead to results.

Exclusions from Sharing

Research data does not include:

- preliminary analyses
- drafts of scientific papers
- plans for future research
- peer reviews
- communications with colleagues

Why is Responsible Stewardship of Research Data Important?

Ensuring research data are **(FAIR)**

Findable,

Accessible,

Interoperable,

And

Reusable

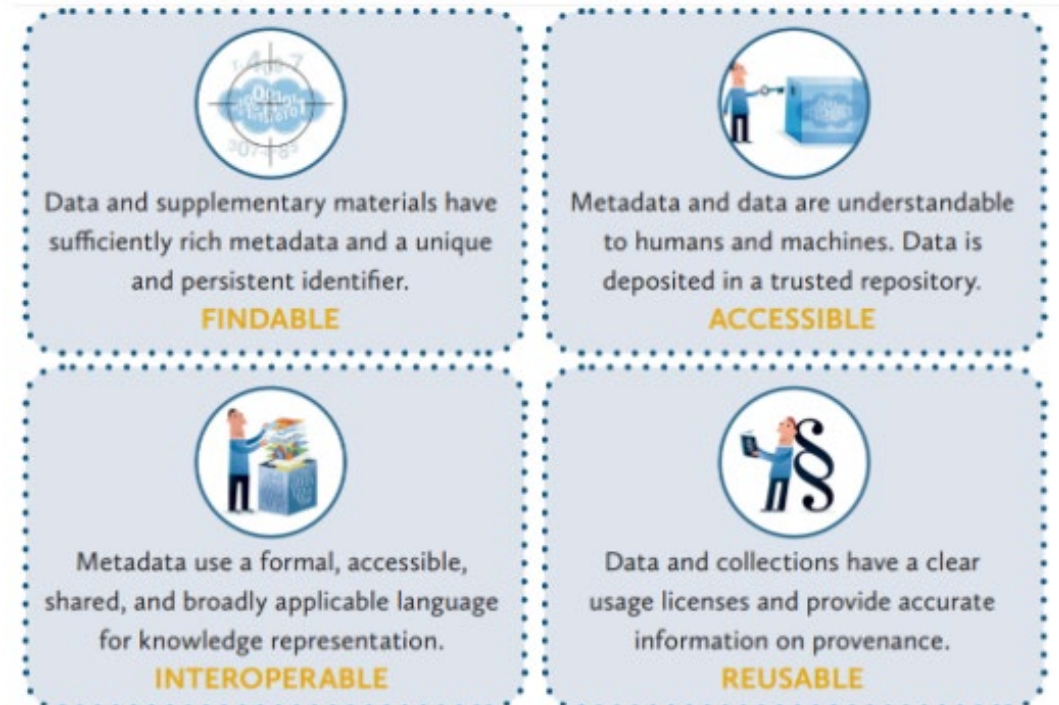
increases **rigor, public trust, innovation, and impact** of research.

For a deeper dive on Fair Guiding Principles

<https://go-fair.org/fair-principles/>

FAIR Data

The 'FAIR Guiding Principles for Scientific Data Management and Stewardship,' published in 2016 in *Scientific Data*. The authors intended to provide guidelines to improve the Findability, Accessibility, Interoperability, and Reuse (FAIR) of digital assets.



Images in the FAIR Data graphic are from Digitalbevaring.dk / Jørgen Stamp (CC BY 2.5 Denmark license).

Why is Responsible Stewardship of Research Data Important?

Increases the transparency of commitment from the university to the public.

Emphasizes the value of research and its societal impacts.

Aligns with increasing expectations from federal funding agencies, scholarly associations, and scientific journals for institutional management of research data.

Transparency promotes the university as well as attracts potential collaborators and sponsors.

TAMU Research Data Management Resources

TAMU Libraries

TAMU Technology Services

TAMU SAP The Responsible Stewardship
of Research Data (15.99.03.M1.03)



TAMU Libraries
Research Data Management
Resources

TAMU Libraries Research Guides

[Overview - Research Data Management - Research Guides at Texas A&M University](#)

[Overview of Research Data Management](#)

[Find Data](#)

[Data Life Cycle](#)

[Data Management Planning](#)

[Define Research Data](#)

[Elements of a Plan](#)

[Funding Agency Guidelines](#)

[Sample Text](#)

[Sample Plans](#)

[DMPTool](#)

[Data Sharing Requirements](#)

[Data Repositories](#)

[FAIR Data](#)

[Additional Resources](#)

[Citing Data and Datasets](#)

[Data Management Workshops](#)

Creation of an institutional research data catalog

Data@TAMU Research Data Catalog

The Data@TAMU Digital Catalog

Data@TAMU collects and indexes datasets created by TAMU researchers and stored in data repositories around the world. The catalog increases discoverability of datasets in support of re-use, experimental reproducibility, and social impact.

"Open access to research data is critical for advancing science, scholarship, and society. Research data, when repurposed, has an accretive value. Publicly funded research should be publicly available for public good." - from preamble to the Denton Declaration: An Open Data Manifesto




Search the repository... Q Search

Communities in Data@TAMU
Select a community to browse its collections.

Now showing 1 - 1 of 1 🗕

Data@TAMU 📄

Recent Submissions

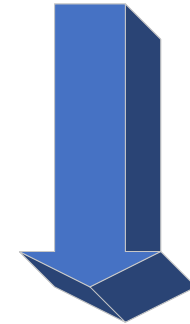
-  **Research Project**
Techniques in symplectic geometry and applications
Mathematics; TAMU; <https://hdl.handle.net/20.500.14641/251>; National Science Foundation
The central goal in geometry and topology is to understand mathematical spaces. A mathematical space can be characterized by both local and global information, such as how curved it is (local) and how connected it is (global). As a sub-field, symplectic geometry studies a special kind of space called a symplectic manifold. These spaces are all the s:
[Show more](#)
-  **Research Project**
Restoring coastal wetlands for shorebirds: leveraging lessons learned to identify research priorities and strategies to maximize future success
Marine Biology; TAMU; <https://hdl.handle.net/20.500.14641/247>; DOC-National Oceanic and Atmospheric
Project description. Coastal wetland restoration is a vital coastal management tool, but is often reactive rather than proactive, with new projects initiated as an opportunistic response to the availability of land or funding, or as a compensatory mitigation response. A substantial body of literature has examined various aspects of coastal wetland res:
[Show more](#)
-  **Research Project**
DMREF: Collaborative Research: A Blueprint for Photocatalytic Water Splitting: Mapping Multidimensional Compositional Space to Simultaneously Optimize Thermodynamics and Kinetics
Chemistry; TAMU; <https://hdl.handle.net/20.500.14641/219>; National Science Foundation
NON-TECHNICAL DESCRIPTION: Sunlight is a vast source of renewable energy but its intermittent nature means that its utilization requires a means of storing this energy. One attractive approach for solar energy storage is to harness the energy of sunlight to split water into hydrogen and oxygen i.e. solar generated fuels. The solar generated fuels co:
[Show more](#)

Pilot Phase I: Federally Sponsored Research

How will it work?



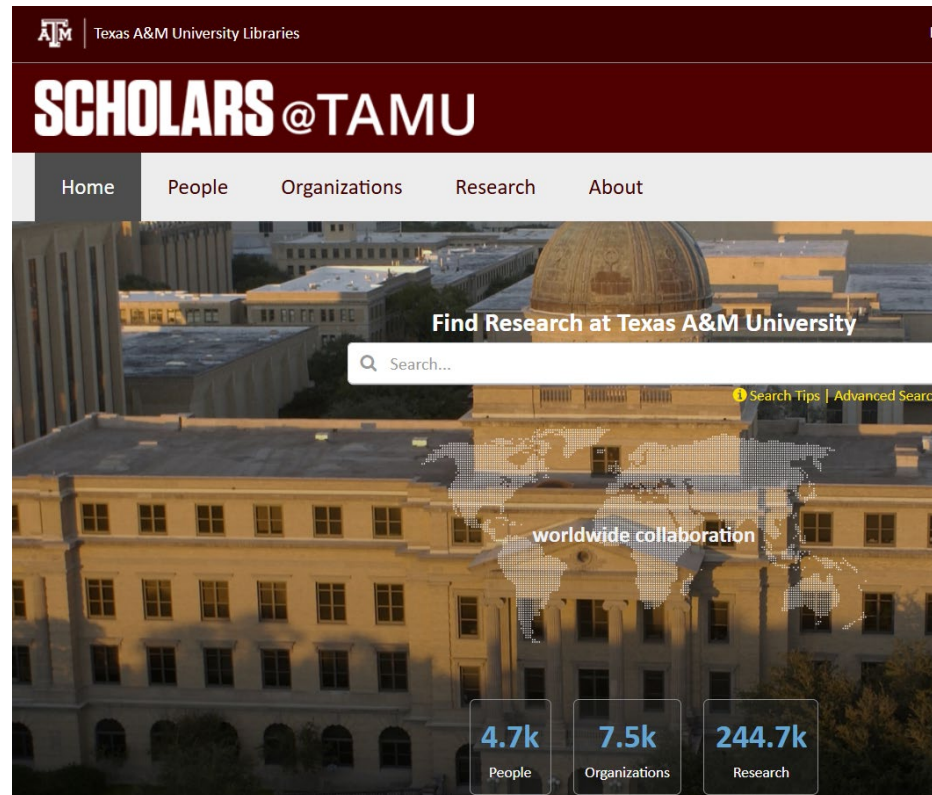
- Project Title
- Project Description
- Project Status (Active/Completed)
- Project Completed Date
- Project PIs/Personnel
- Project College/School
- Project Personnel
- Project Sponsor



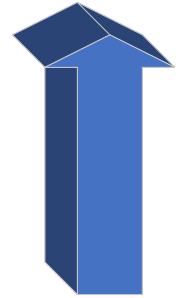
Pilot Phase I: Federally Sponsored Research

How will it
work?

- Update Scholars profile to include active research along with active publications
- Assistance provided to create a Scholars profile if no profile exists



SCHOLARS@TAMU



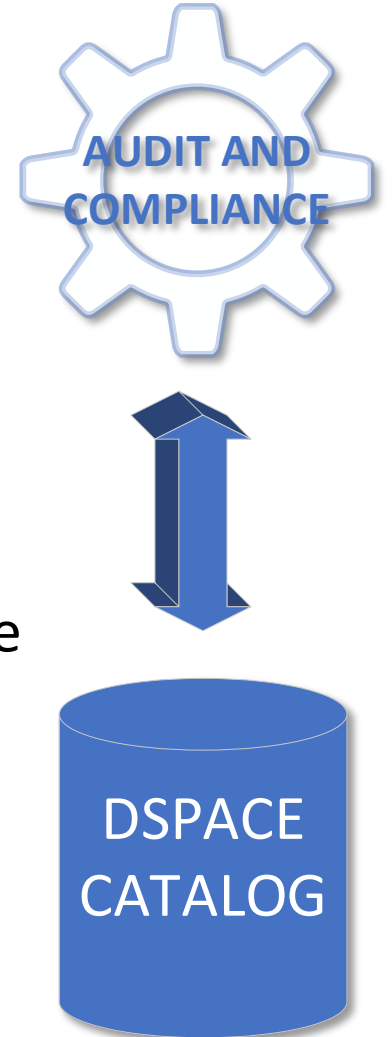
DSPACE
CATALOG

Pilot Phase I: Federally Sponsored Research

How will it
work?

Compliance attributes [non-public] Examples

- Data Custodian / Owner
- Project Data and Service Locations
 - TAMU Sponsored Cloud Storage (Google, OneDrive, AWS)
 - Departmental Storage / Aggiecloud
 - Existing services already in place to store specific data types
- Data Retention Review Date
- 3rd Party Access/Data Copy Requests where desired
- Data marked for move to centralized storage



The background features a series of concentric, semi-transparent circles in shades of light blue and green, creating a layered effect. The overall color palette transitions from a light blue on the left to a light green on the right.

TAMU Technology Services Resources

TAMU Technology Services

<https://it.tamu.edu/>

[Data Classification + Research Resources | IT.tamu.edu](#)

[Available Research Resources | IT.tamu.edu](#)

[Information on Policies, Standards or Specifications: IT Policy | IT.tamu.edu](#)

[STAR System: IT.tamu.edu/star](#)

****Please connect with your local departmental IT team for questions.*

Data Classification Tool

Data Classification + Research Resources

Quickly identify the classification of research data and find campus resources that protect data while fulfilling research needs.

- 1 Discover your data classification level.
- 2 Find available resources for your research. *See Available Resources*

Let's Begin!

Start a New Data Classification Report

Have an existing Data Classification Report?

Use an Existing Data Classification Report

Data & File Storage Options

Available Research Resources

Overview

Texas A&M University provides numerous technology options to store data and files. Care must be taken to ensure the storage solution used meets the compliance standards for the type of data in your care. To comply with [SAP 29.01.03.M0.13 - Cloud Computing Services](#), you must use a university-provided storage solution, and not a personal service account.

Specific colleges or campuses may have additional research resources. Reach out to your local IT department for a list of other available services.

To determine which resources are suitable for your research data and needs, begin a [Data Classification Report](#) now.

[Start a Data Classification Report](#)

Resource	HIPAA	FERPA	Encrypted at Rest	Encrypted in Transit
 Aggie Cloud	Use caution ⓘ	Yes	Yes	Yes
 Amazon Elastic Block Store	Use caution ⓘ	Yes	Yes	Yes
 Amazon Elastic File System	Use caution ⓘ	-	Yes	Yes
 Amazon Glacier	Use caution ⓘ	Yes	Yes	Yes
 Amazon S3 Storage	Use caution ⓘ	Yes	Yes	Yes

IT POLICY

IT Policy

Defining rules and guidelines for information technology use across the Texas A&M campus.

Federal Regulatory IT Compliance

Policies, standards, or specifications defined and mandated by the Federal Government.

Laws and Regulations

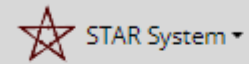
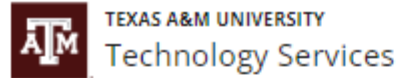
A legal framework for conducting information technology business at Texas A&M University.

IT Policy Guide

IT Policy Guide at a local level and networking on the Texas A&M University campus.

TAMU
Technology
Services

Secure Technologies for Aggie Researchers (STAR)



[Home](#)

[Getting Started](#)

[Services](#)

[Support](#)

Secure Technologies for Aggie Researchers

Secure Technologies for Aggie Researchers (STAR) provides a collection of new, cloud-based resources that facilitate both rapid access and simplified procurement for researchers working with controlled, confidential or restricted data.

[Getting Started](#)

TAMU
STANDARD ADMINISTRATIVE PROCEDURE
**The Responsible Stewardship
of
Research Data**
(SAP15.99.03.M1.03)

Why is it required?

SAP 15.99.03.M1.03 The Responsible Stewardship of Research Data

“Federally sponsored research data must be retained for a minimum of 3 years after the financial report for the project period has been submitted or, for non-federally sponsored projects, a minimum of 3 years after the end of the project unless otherwise contractually specified. Non-sponsored research is subject to any applicable State of Texas records retention requirements...” [4.1]

[15.99.03.M1.03 Reference]

What is covered?

SAP 15.99.03.M1.03 The Responsible Stewardship of Research Data

“This SAP outlines the assignment of responsibilities, procedures and processes that will assure that research data is properly recorded, retained for the required period of time and made available for review as obligated.”

[15.99.03.M1.03 Reference]

Who is responsible?

SAP 15.99.03.M1.03 The Responsible Stewardship of Research Data

“The Office of the Vice President for Research is designated as the responsible office for research data management in coordination with the Data Management Officer (TAMU CISO) at Texas A&M University”

Who is responsible?

Principal Investigator Responsibility:

“the selection of the appropriate scope and methodology of collections, management, retention and archiving based on the type of research being conducted;” [2.2]

Dean/Department Head Responsibility:

“stewardship of research data by the principal investigator, or within the department, college or unit is managed responsibly ...” [2.3]

[15.99.03.M1.03 Reference]

Significant Compliance Aspects Covered

- End of Project (EOP) data is protected for the appropriate duration. [4.1]
- EOP research data is stored in appropriate locations per data classification and required security controls with current custodian and owner information. [4.3]
- EOP data locations are auditable and updated to remain current. [4.3]
- Data is managed in accordance with University Standard Administrative Procedure 29.01.03.M0.01, Security of Electronic Information Resources and any additional requirements by the research sponsor. [4.4]
- Requested access to EOP data is appropriately brokered and recorded (may impact future citations or peer review). [4.5]
- 3rd party data and service agreements for the hosting or consumption of EOP data can be evaluated for proper protections applicable to TAMU, its researchers, and research subjects [4.5]
- Process for transfer of EOP data to other institutions upon separation from the university [5.1] or the proper transfer of ownership of original research data. [5.2]

TAMU Library
Research Guides and Data Catalog

TAMU Technology Services

TAMU SAP
The Responsible Stewardship of Research Data
(15.99.03.M1.03)

Leslie Krueger | Director of Research Data
lkrueger@tamu.edu

Derek Halling | TAMU Libraries
dhalling@library.tamu.edu

TAMU Technology Services
Local Departmental IT Teams

Thank You!

