



28 April 2016

Creating a Data Management Plan template for WYDOT

Enid White, Wyoming Department of Transportation

Approach for the TLR Data Management Series

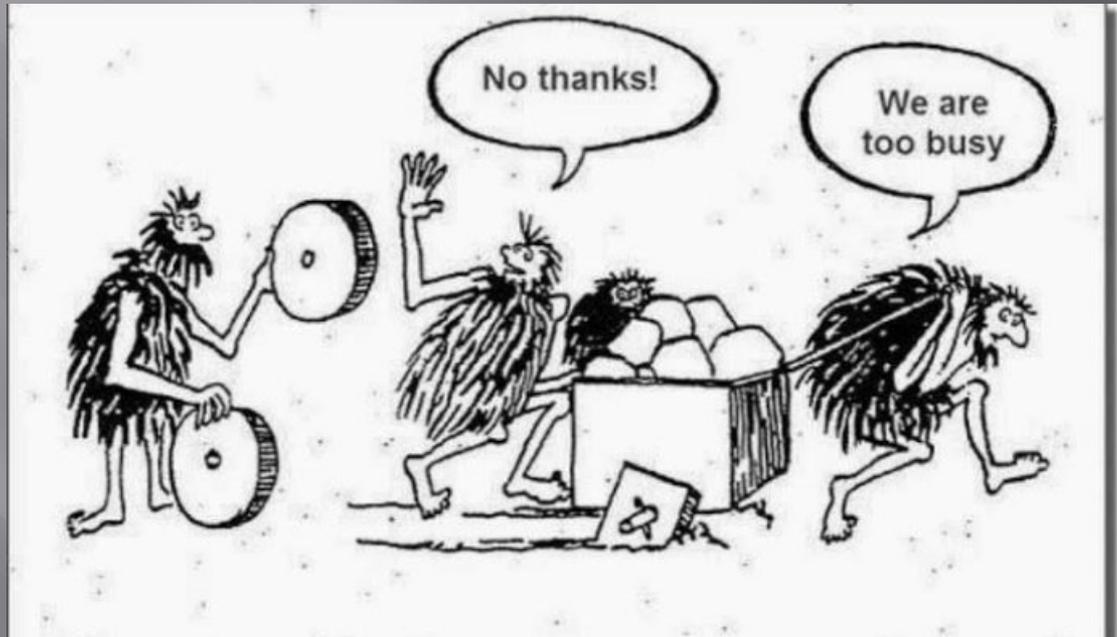
- Many different ways to slice data management
- Policy requirements add immediacy to the need to build capacity
- No one size fits all for each agency's context
- Participant-driven series. Voting on:
 - Topic priority
 - Frequency
- Last as long as there is interest



WYDOT RESEARCH CENTER DATA MANAGEMENT PLAN

ENID WHITE, RESEARCH MANAGER

NEVER REINVENT THE WHEEL



STEPS WYDOT TOOK

1. Find a template that will fit your program.
2. Perform GAP analysis using the requirements from:
 - a. Federal statutes and executive orders.
 - b. National Transportation Library requirements.
<http://ntl.bts.gov/publicaccess/creatingaDMP.html>
 - c. State statutes.
3. Funding Agency Guidelines.

FIND A TEMPLATE

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[USGS Data Management - Data Management Plans](http://www.usgs.gov/datamanagement/plan/dmplans.php)

www.usgs.gov/datamanagement/plan/dmplans.php

The U.S. Geological Survey's **Data Management** website offers guidance to USGS scientists on managing **data** for maximum benefit to science and the Nation.

[Data Management Plan Templates - Columbia University](http://scholcomm.columbia.edu/...a-management-plan-templates)

scholcomm.columbia.edu/...a-management-plan-templates

Requirements for **Data Management** and Sharing. **Plan** to manage your **data** in a way that makes meeting the eventual requirements for **data management** and sharing easier.

[Data Management Plan Examples | University of Minnesota ...](http://www.lib.umn.edu/datamanagement/DMP/example)

www.lib.umn.edu/datamanagement/DMP/example

Not sure where to start writing your **data management plan**? Managing **data** in different disciplines can sometimes require very different strategies, standards, and ...

[Data Management Plans \(Stanford University Libraries\)](http://library.stanford.edu/.../data-management-plans)

library.stanford.edu/.../data-management-plans

About **data management plans** (DMPs) A **data management plan** (DMP) is a written document that describes the **data** you expect to acquire or generate during the course of a ...

[NSF-ENG: Data Management Plan Requirements](http://www.nsf.gov/eng/general/dmp.jsp)

www.nsf.gov/eng/general/dmp.jsp

NSF ENG **Data Management Plan** Requirements. Proposals submitted to NSF must include a supplementary document of no more than two pages labeled "**Data Management Plan** ...

[Home: DMPTool](http://dmptool.org/)

dmptool.org/

Data Management Planning Tool. Create, review, and share **data management plans** that meet institutional and funder requirements. Get Started

[USGS Data Management - Plan](http://www.usgs.gov/datamanagement/plan.php)

www.usgs.gov/datamanagement/plan.php

The U.S. Geological Survey's **Data Management** website offers guidance to USGS scientists on managing **data** for maximum benefit to science and the Nation.

[Creating a Data Management Plan | University of Minnesota ...](http://www.lib.umn.edu/datamanagement/DMP)

www.lib.umn.edu/datamanagement/DMP

Before starting a new research project, it is critical to develop a **data management plan** (DMP) that outlines your practices for collecting, organizing, backing up ...

[Data management | MIT Libraries](http://libraries.mit.edu/data-management)

libraries.mit.edu/data-management

We help MIT faculty and researchers manage, store, and share **data** they produce. Make a **plan**. Why manage your **data**? Write a **data management plan**; Other guides to **data** ...

Ads

[Data Management Plan | Tableau.com](http://www.Tableau.com/Management)

www.Tableau.com/Management

Data Management for Self-Service Analytics. Get The Free Whitepaper!

[Data Management Planning - sas.com](http://www.sas.com/data-management)

www.sas.com/data-management

Download The Paper: The 5 Essential Components of a **Data** Strategy.

[Data Management Software](#) - [Hadoop Data Tools](#) - [Data Integration Tech](#) - [Data Governance Systems](#)

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azure.microsoft.com/

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MANAGING YOUR DATA

Home

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Funding Agency Guidelines

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IRB Considerations

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3. After Your Research Ends

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About Us

CREATING A DATA MANAGEMENT PLAN

Before starting a new research project, it is critical to develop a data management plan (DMP) that outlines your practices for collecting, organizing, backing up, and storing the data you will be generating. To help you begin writing a DMP, we provide a general template that includes questions to address; however, funding agencies like the [National Science Foundation](#) have specific guidelines on what information to include in your DMP that should take precedence.

Action Plan

1. Review your [funding agency guidelines](#) for data sharing and determine requirements that need to be addressed
2. Get help writing your DMP:
 - **Online:** Use our tools to create a first draft of your DMP
 1. [U of M DMP Template \(Google Doc\)](#)
 2. [DMPTool](#): Free web services with UMN x500 login
 3. [Online Workshop: Creating a Data Management Plan](#)
 - **In Person:** Once you have a draft, [consult with a data curation librarian](#) to review your plan and give you feedback within one business day
3. Implement your plan by using [tools and resources](#) found across campus

Need help?

[Contact Us](#) with your questions and we will consult with you or point you to the right person, resource, or service on campus.

[Download a Brochure of our Services](#)

Points to address in your DMP

1. What types of [data](#) will be produced in terms of format, file size, and classification (e.g., quantitative, qualitative, or sensitive)?
2. What metadata standards do you need to follow for documentation?
3. Do any considerations need to be made to protect sensitive information, including study participant confidentiality and intellectual property protection?
4. What policies do you need to follow with respect to data sharing and reuse?
5. How will you ensure archiving and preservation of the data you will produce?

Resources and Examples

The Libraries have organized the following resources that may be useful for you as you write your DMP:

- [UMN DMP template \(google doc\): a template you can use to begin writing your DMP](#)
- [Data Management Checklist](#) (two page pdf)
- Boilerplate text that you can use in your DMP and project proposal:

A long-term data sharing and preservation plan will be used to store and make publicly accessible the data beyond the life of the project. The data will be deposited

DMP WEBSITES

University of Minnesota:

<https://www.lib.umn.edu/datamanagement/DMP>

https://docs.google.com/document/d/1MxQP-BqDv_fMF12F2ANQ0jYDw__1xPTTXW14xdLhIyE/edit

DMP WEBSITES

National Science Foundation:

<http://www.nsf.gov/bfa/dias/policy/dmp.jsp>

NSF FAQ sheet:

[http://www.nsf.gov/bfa/dias/policy/dmpfaqs.j
sp](http://www.nsf.gov/bfa/dias/policy/dmpfaqs.jsp)



GAP ANALYSIS

Perform GAP analysis using the requirements from:

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- c. State statutes.



FUNDING AGENCY GUIDELINES

WHERE DOES THE MONEY
COME FROM????????????????



INTRODUCTION SECTION

1. Basic information on the research project.
2. Purpose of Project.



DATA TYPE AND STORAGE

1. What type of data will be produced.
2. How it will be collected.
3. Will it be reproduced.
4. How much data are we talking about.
5. Will it be original or pre-existing data.
6. Where will it be stored.

ACCESS AND/OR INTELLECTUAL PROPERTY

1. How to protect privacy, security, confidentiality, IP.
2. What are the access concerns.
3. Who controls the rights.
4. Privacy and security requirements.
5. Embargo periods.

DATA SHARING AND REUSE

1. How the data will be shared.
2. Sharing requirements.
3. Audience for reuse.
4. Where will it be published.
5. Tools/software needed for data.

DATA PRESERVATION AND ARCHIVING

1. Where will the data be archived.
2. Will WYDOT need to assist in the archival process.



METADATA SCHEMA

Provides information so WYDOT can archive the data and report.

PRIOR TO BEGINNING RESEARCH

1. Kick off meeting.
 - a. Review DMP.
 - b. Review Metadata Schema.
 - c. Review deliverables in contract.
 - d. Discuss disclosures or legal protections necessary for the report and data.
 - e. Determine all rights to the data and/or datasets.
 - f. Discuss budgets for data.

DURING RESEARCH PROJECT

Monitor project:

1. Insure data is maintained and backed up in secure manner.
2. Check storage requirements.
3. Contractors shall updata DMP and Metadata Schema Form.

AFTER THE PROJECT IS OVER

1. Determine who will house the data and for how long.
2. Collect DMPs, Metadata Schema template, and data if necessary.
3. Set embargo periods.
4. Determine budgets for archiving.
5. Determine who can access the data.
6. Determine who can reuse the data.
7. Review confidentiality and licenses.
8. Determine data formatting.



COMPLETED DMPs AND LESSONS LEARNED

1. Data that was used in the report comes in varying sizes.
2. Data will not be hard to gather.
3. Contractors are willing to assist in this process.
4. Contractors are filling the DMPs out.
5. Contractors are asking questions.