

Research Data Management

Will Garrett-Petts and Kathy Gaynor



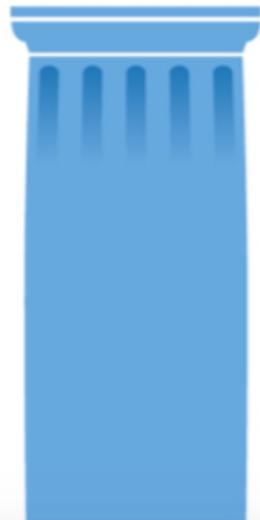
April 26, 2021, Thompson Rivers University Senate

Tri-Agency RDM Policy

In March 2021, the Tri-Agency released their [Research Data Management Policy](#)

The policy includes general requirements and implementation dates across three main pillars:

**Institutional
Strategy**



DMPs



Deposit



Tri-Agency RDM Policy - “Take away points”

Institutional Strategy:

Each postsecondary institution eligible to administer Tri-Agency funds is required to create and release an institutional RDM strategy by March 2023

Data Management Plans:

For certain funding opportunities, data management plans (DMPs) will be required to be submitted at the time of application, as outlined in the call for proposals; in these cases, the DMPs will be considered in the adjudication process.

***NOTE:** By spring 2022, the agencies will identify the initial set of funding opportunities subject to the DMP requirement. The agencies will pilot the DMP requirement in targeted funding opportunities before this date.*

Data Deposit:

Grant recipients are required to deposit into a digital repository all digital research data, metadata and code that directly support the research conclusions in journal publications and pre-prints that arise from agency-supported research.

***NOTE:** After reviewing the institutional strategies and in line with the readiness of the Canadian research community, the agencies will phase in the deposit requirement.*

Why are DMPs important?

A data management plan is important to the research process as it can help you to:

- set out consistent strategies prior to starting your research for how data will be managed throughout its entire lifecycle
- identify the strengths & weaknesses in your current practices and make decisions on how to integrate effective data management practices into your process
- prepare data for future reuse, preservation and sharing
- reduce the overall cost of research by increasing project efficiencies

Data Management Plan (DMP)

A Data Management Plan is a high level living document that describes the data generated or collected through a research project.

DMPs are grounded in your discipline and your data will reflect that discipline. For example:

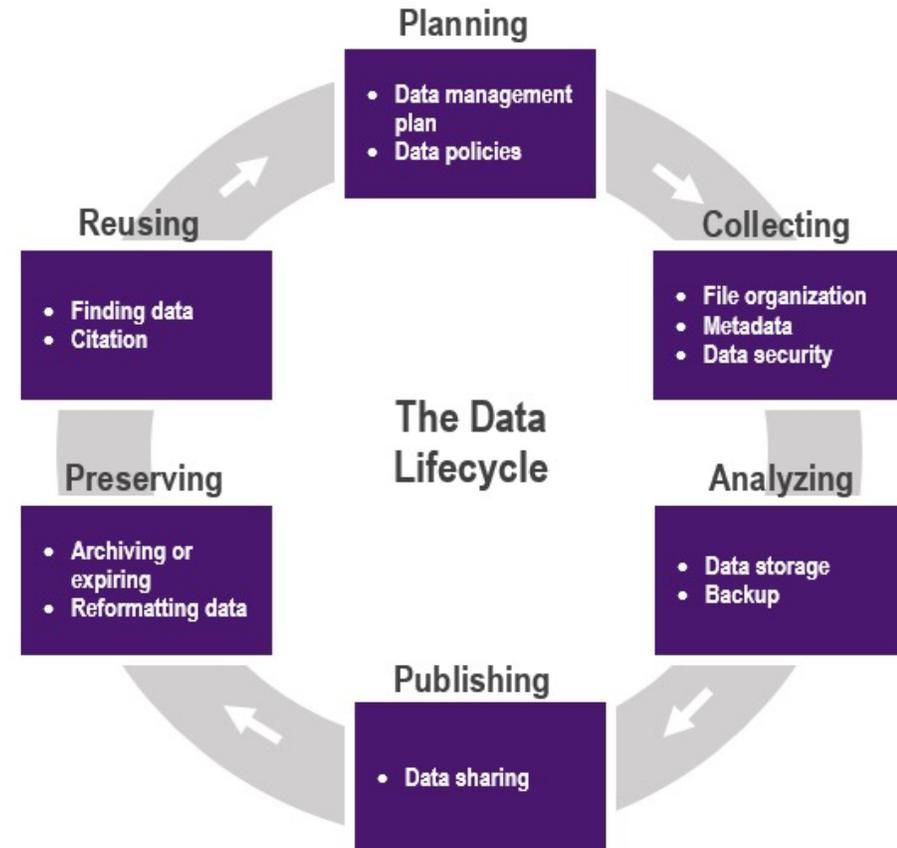
- Field notes
- Survey data
- Photographs
- Artist proofs
- Documents



Data Management Plan (DMP)

Proper data management can make it easier for you to:

- Find your files
- Keep track of different versions of your data
- Organize and compile information at the end of a project
- Reproduce your work (if required for a journal or patent)
- Pass on your work to another researcher
- Share your work
- Satisfy grant requirements
- Satisfy journal requirements
- Satisfy research ethics board requirements



What goes in a Data Management Plan?

In general, a data management plan will include brief statements that address:

1. Description of data to be collected/created
2. Standards/methodologies for data collection & management
3. Ethics and Intellectual Property
4. Plans for data sharing and access
5. Strategy for long-term preservation

Data Management Plan Exemplar #1: Digital Humanities

Women's Print History Project (1750- 1830)

publishers over the course of their careers? What social networks were formed through women's engagement with publishers, printers and each other? How might we better understand women's contributions to the history of print in a variety of roles (as authors but also as co-authors, editors, translators, patrons, engravers, or booksellers)?

Institution: Simon Fraser University

Data Collection

What types of data will you collect, create, link to, acquire and/or record?

When gathering data from written sources, it is helpful to provide the reader with information surrounding the material(s) from which you'll collect, as well as a few examples of the resources you'll draw upon to find those materials.

We will be collecting bibliographic metadata about titles of written works, persons and firms such as title of work, name of author, publisher, date published, etc. Currently we are collecting data from about 50 different sources, some print, most digital. Examples include the British Library online catalogue and specialized print bibliographies like the English Novel 1770-1830.

It is useful to include where these data are being collected from, using examples of the print bibliographies and databases from which you'll be aggregating this information.

What file formats will your data be collected in? Will these formats allow for data re-use, sharing and long-term access to the data?

Data is coming from some sources provided to us (MARC¹ records, for example, from ESTC²), and from a few other libraries/projects. Most of the data however is being found and entered by

¹ Machine-Readable Cataloguing

² English Short Title Catalogue



Data Management Plan Assistance

For assistance with all stages of research data management, including creating data management plans and options for depositing your research data...

<https://libguides.tru.ca/datamanagementplans>

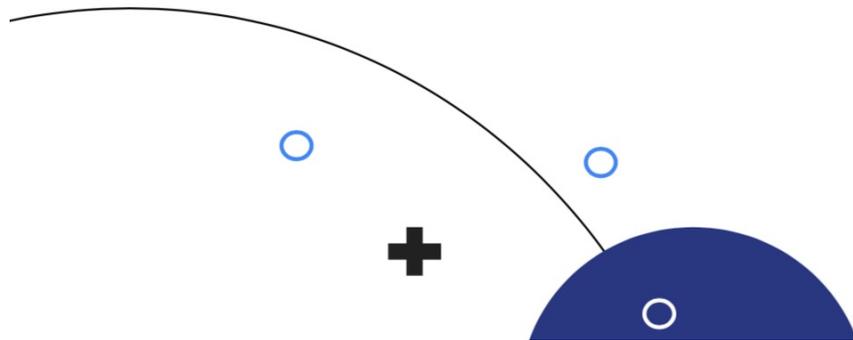
The screenshot shows the TRU Libraries website for Data Management Plans (DMP). The header includes 'TRU Libraries' and navigation links for 'Thompson Rivers University Library', 'Research Guides', 'Data Management Plan (DMP)', and 'Home'. A search bar is located in the top right. The main content area is titled 'Data Management Plans?' and contains the following sections:

- Home** (selected): Requirements for a DMP, 1. Types of Data, 2. Standards, 3. Access and Sharing, 4. Provisions for privacy, 5. Archiving and preservation, DMP Assistance.
- Live Help**: AskAway Live Chat window with a text input field and a 'Feedback' button.
- Reference and Instruction Librarian**: A photo of a librarian holding a colorful umbrella.
- Data Management Plans?**:
 - What is a data management plan (DMP)?**: A Data Management Plan describes the data and metadata gathered through a research project. It includes information about the data files, plans for data storage, and rules for sharing data.
 - Research data is the data created or generated as part of a research project and exists in many formats including numeric data, text, transcripts, images, video and audio recordings. Research data management describes the activities researchers perform as they create and save their research data.**
 - In the spirit of good data stewardship and funding agency requirements the adoption of Research Data Management (RDM) practices are increasing worldwide. In Canada a handful of funding agencies require researchers to apply RDM practices to their data to ensure it is comprehensive and accessible long-term.**
 - Why is it important to properly manage your data?**
 - Most researchers today work with a lot of research data, and without proper data management it can be difficult to keep track of everything!**
 - Proper data management can make it easier for you to:**
 - Find your files
 - Keep track of different versions of your data
 - Organize and compile information at the end of a project
 - Reproduce your work (if required for a journal or patent)
 - Pass on your work to another researcher
 - Share your work
 - Satisfy grant requirements
 - Satisfy journal requirements
 - Satisfy research ethics board requirements
- "Good Enough" Research Data Management (a brief guide for busy people)**: This brief guide presents a set of good data management practices that researchers can adopt, regardless of their data management skills and levels of expertise.
 - 1 Save your raw data in original format**
 - 1.1 Don't overwrite your original data with a cleaned version.
 - 1.2 Protect your original data by locking them or making them read-only.
 - 1.3 Refer to this original data if things go wrong (as they often do).
 - 2 Backup your data**
 - 2.1 Use the 3-2-1 rule: Save three copies of your data, on two different storage mediums, and one copy off site.
 - 2.2 Do not backup or store sensitive data on a commercial cloud (Dropbox, Google Drive, etc.).
 - 3 Describe your data**
 - 3.1 Machine Friendly: Describe your dataset with a metadata standard for discovery.
 - 3.2 Human Friendly: Describe your variables, so your colleagues will understand what you meant. Data
 - 3.3 Do not leave cells blank - use numeric values clearly out of range to define missing (e.g. 99999) or not applicable (e.g. 98888) data, and describe these in your data dictionary.
 - 3.4 Convert your data to open, non-proprietary formats.



Why DMPs?

- Because it is **good practice** .
- Because it is **practical** .
- Because it *is* and/or *will be* **required** .



 Government of Canada / Gouvernement du Canada

Tri-Agency Research Data Management Policy

3.2 Data management plans

All DMPs should describe:

- how data will be collected, documented, formatted, protected and preserved;
- how existing datasets will be used and what new data will be created over the course of the research project;
- whether and how data will be shared; and
- where data will be deposited.





Thank you! Questions?