WHAT YOU NEED TO KNOW ABOUT THE TRI-AGENCY RDM POLICY

December 13th, 2021

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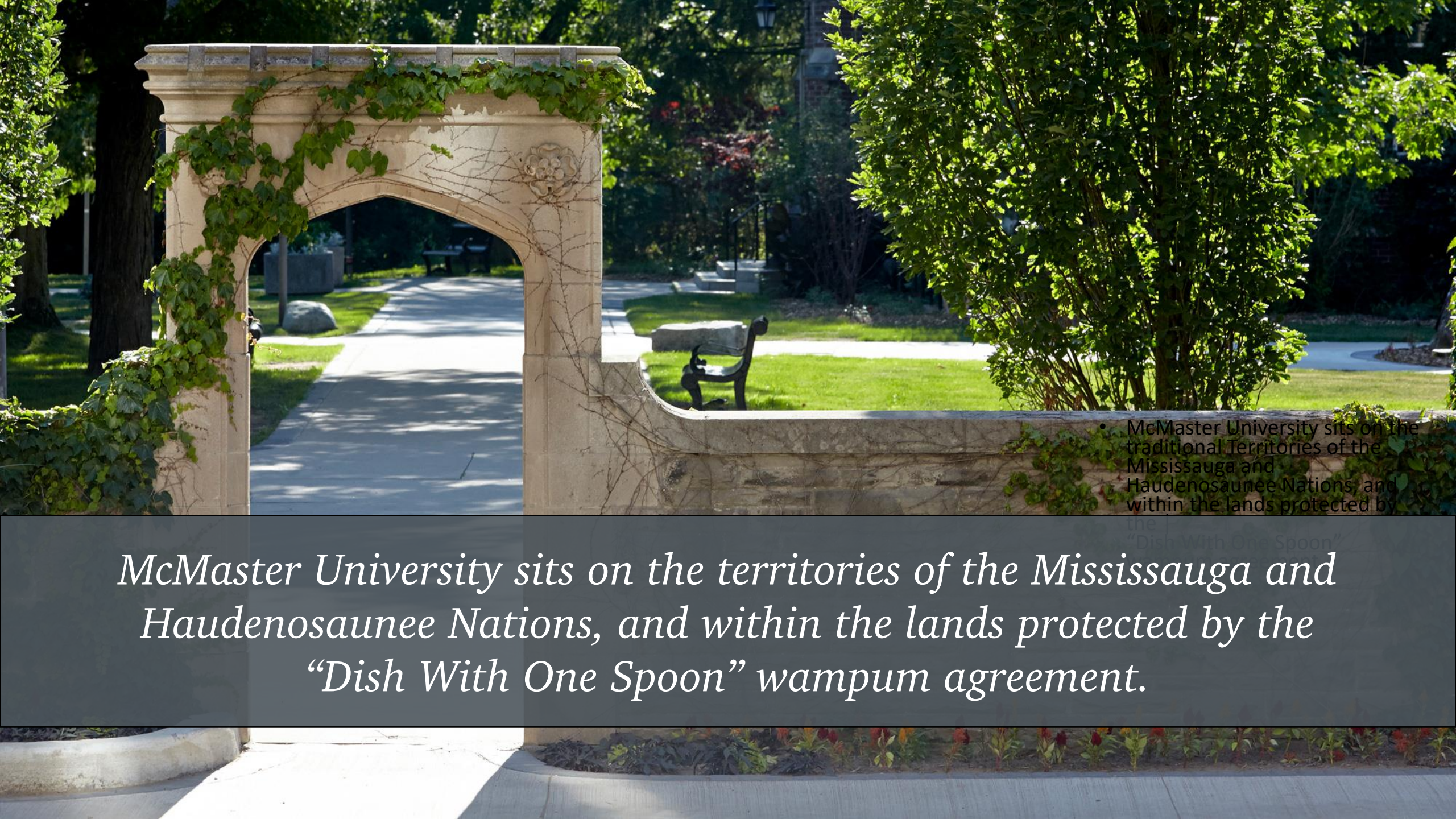

- McMaster University sits on the traditional Territories of the Mississauga and Haudenosaunee Nations, and within the lands protected by the "Dish With One Spoon"

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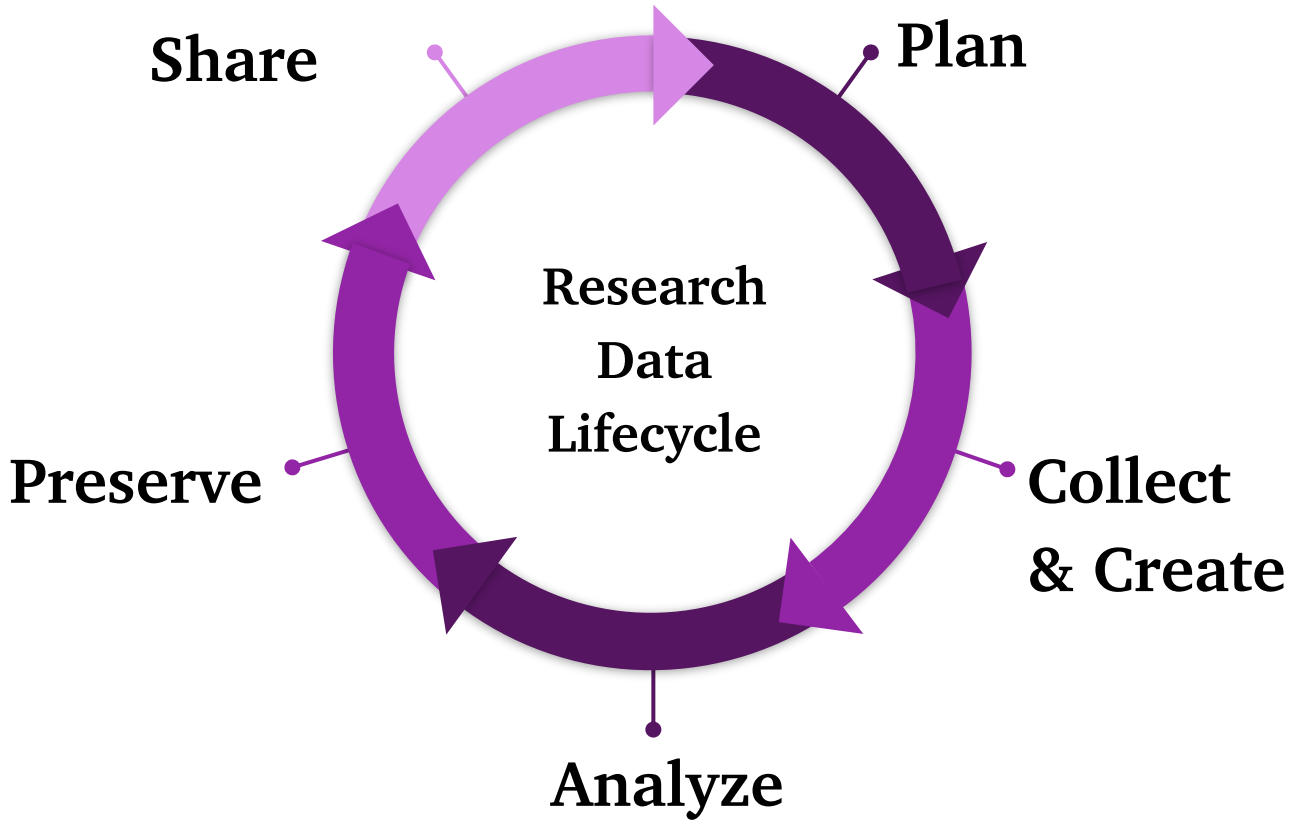
OUTLINE

- What is Research Data Management (RDM) and why should we care about it?
- How does the new Tri-Agency Policy for RDM impact researchers?
- How can McMaster RDM services help?

WHAT IS RESEARCH DATA MANAGEMENT?

Research Data Management is the active organization & maintenance of data throughout the research data lifecycle to ensure its **security**, **accessibility**, **usability**, and **integrity**



For a fuller introduction to RDM see our earlier webinar "Best Practices for Managing Data in your Research" scds.github.io/intro-rdm/

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WHAT IS RESEARCH DATA MANAGEMENT?

Data Management Planning	Access control	Sensitive data	Data deposit and archiving	Documentation and metadata
Active data management	Storage and Backup	Data security	Data sharing	Data publication and citation

For a fuller introduction to RDM see our earlier webinar "Best Practices for Managing Data in your Research" scds.github.io/intro-rdm/

WHY IS RESEARCH DATA MANAGEMENT IMPORTANT?

- Proper **data planning and organization** saves time and resources
- Good **data storage and backup** strategies help avoid loss of data from aging/mechanical failure of storage devices
- Robust **data security** practices protect your valuable data
- **Depositing and Publishing data** improves research visibility and transparency
- **Sharing data openly and FAIRly** allows data to be reused for new scholarship

F Findable
A Accessible
I Interoperable
R Reusable

Wilkinson, M., Dumontier, M., Aalbersberg, I. *et al.* The FAIR Guiding Principles for scientific data management and stewardship. *Sci Data* **3,** 160018 (2016). https://doi.org/10.1038/sdata.2016.18

But now…

Some questions for you

TRI-AGENCY STATEMENT OF PRINCIPLES ON DIGITAL DATA MANAGEMENT: **EXPECTATIONS**

- Data management planning
- Constraints and obligations
- Adherence to standards
- Collection and storage
- Metadata
- Preservation, retention and sharing
- Timeliness
- Acknowledgement and citation
- Efficient and cost-effective

Tri-Agency Statement of Principles on Digital Data Management http://www.science.gc.ca/default.asp?lang=En&n=83F7624E-1

TRI-AGENCY STATEMENT OF PRINCIPLES ON DIGITAL DATA MANAGEMENT: **RESPONSIBILITIES**

Researchers

- incorporating best practices
- developing DMPs
- adhering to policies and standards

Research Communities

- developing & promoting standards
- fostering excellence
- selecting repositories

Research Institutions

- supporting best practices
- providing access to resources
- creating guidance and policies

Research Funders

- developing policies & guidance
- promoting data management
- providing peer reviewers

Government of Canada | Gouvernement du Canada

Search Canada.ca

MENU

Home > Interagency research funding > Policies and Guidelines > Research Data Management

Research Data Management

- Tri-Agency Statement of Principles on Digital Data Management
- Open Letter
- Tri-Agency Research Data Management Policy
- Public Consultation Summary
- Frequently Asked Questions

Tri-Agency Research Data Management Policy

1. Preamble

The Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), and the Social Sciences and Humanities Research Council of Canada (SSHRC) (the agencies) are federal granting agencies that promote and support research, research training, knowledge transfer and innovation within Canada.

The agencies expect the research they fund to be conducted to the highest professional and disciplinary standards, domestically and internationally. These standards support research excellence by ensuring that research is performed ethically and makes good use of public funds, experiments and studies are replicable, and research results are as accessible as possible. Research data management (RDM) is a necessary part of research excellence.

The agencies believe that research data collected through the use of public funds should be responsibly and securely managed and be, where ethical, legal and commercial obligations allow, available for reuse by others. To this end, the agencies support the FAIR

- **"Research Data Management** is a necessary part of research excellence."
- "Recognize that data related to research by and with **First Nations**, **Métis**, or **Inuit** in Canada must be managed in accordance with data management principles developed and approved by these communities."

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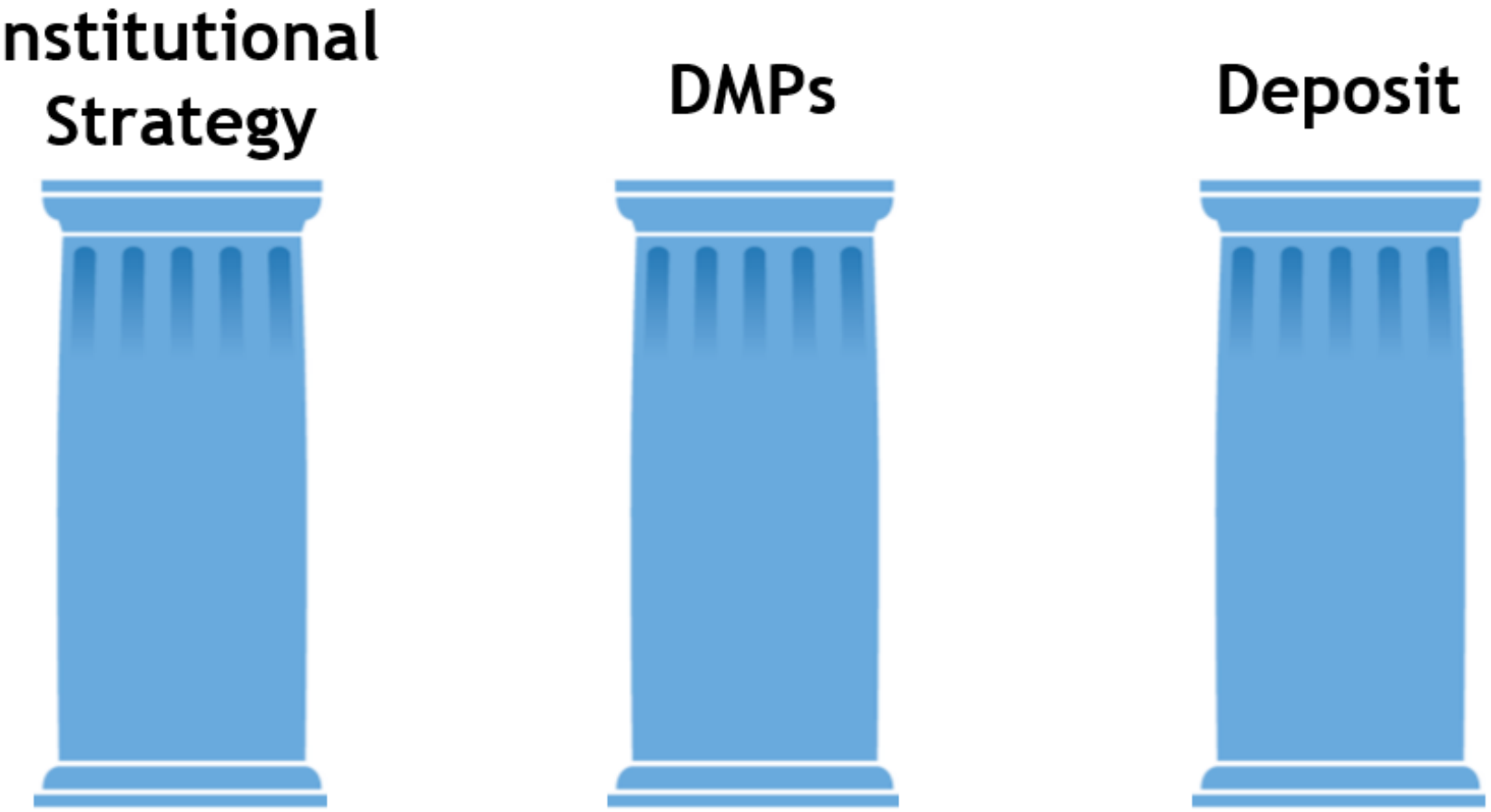
TRI-AGENCY RDM POLICY



Institutional Strategy

"Each postsecondary institution… is required to create an institutional RDM strategy and… make it publicly available on the institution's website."

"An institutional RDM strategy describes how the institution will provide its researchers with an environment that enables and supports RDM practices"

Research institutions must post their RDM strategies by **March 1, 2023.**

MCMASTER RDM INSTITUTIONAL STRATEGY WORKING GROUP

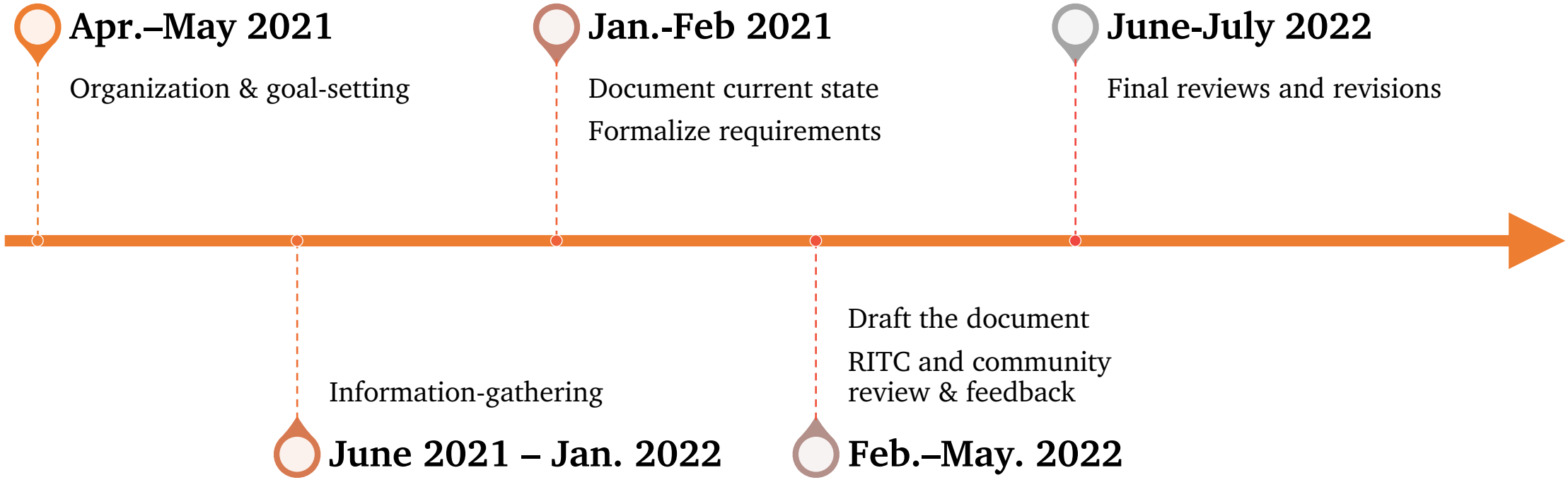
- The working group reports to the Research Information Technology (Tier 2, IT) committee.
- Group tasked with developing a draft Institutional RDM Strategy for mid-2022.
- Membership includes researchers from each Faculty, representatives from the ethics boards, libraries, and research support units (including ROADS/HRS/MILO).

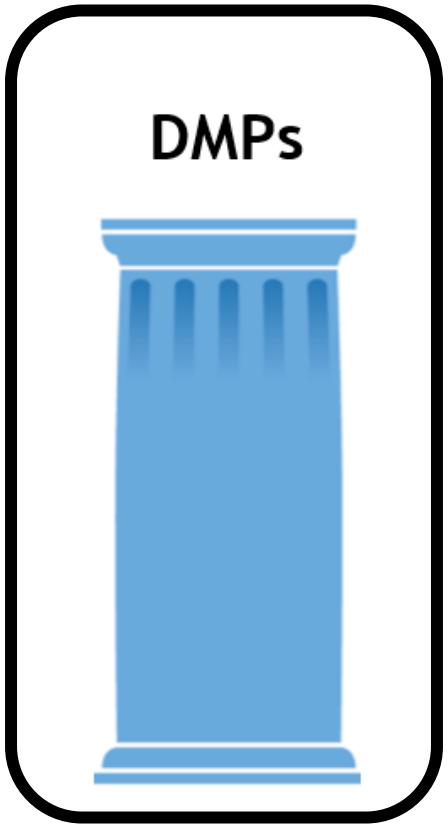
- Learn more at rdm.mcmaster.ca/iswg

MCMASTER RDM INSTITUTIONAL STRATEGY DEVELOPMENT

1. Assemble Your Strategy Development Team
2. **Assess the Current State of RDM**
   - Assessing research data management needs and challenges of researchers through a survey: https://u.mcmaster.ca/rdm-survey
   - Assessing the maturity of current research data management services, policies, and infrastructure
3. Envision the Future State of RDM
4. Articulate Your Institution's Path Forward
5. Assemble and Launch Your Strategy

MCMASTER RDM INSTITUTIONAL STRATEGY DEVELOPMENT





"For certain funding opportunities, the agencies will require data management plans (DMPs) to be submitted"

We provide guidance and templates for researchers using the **Portage DMP Assistant**

Initial set of grants will be announced **Spring 2022.**

DATA MANAGEMENT PLANNING

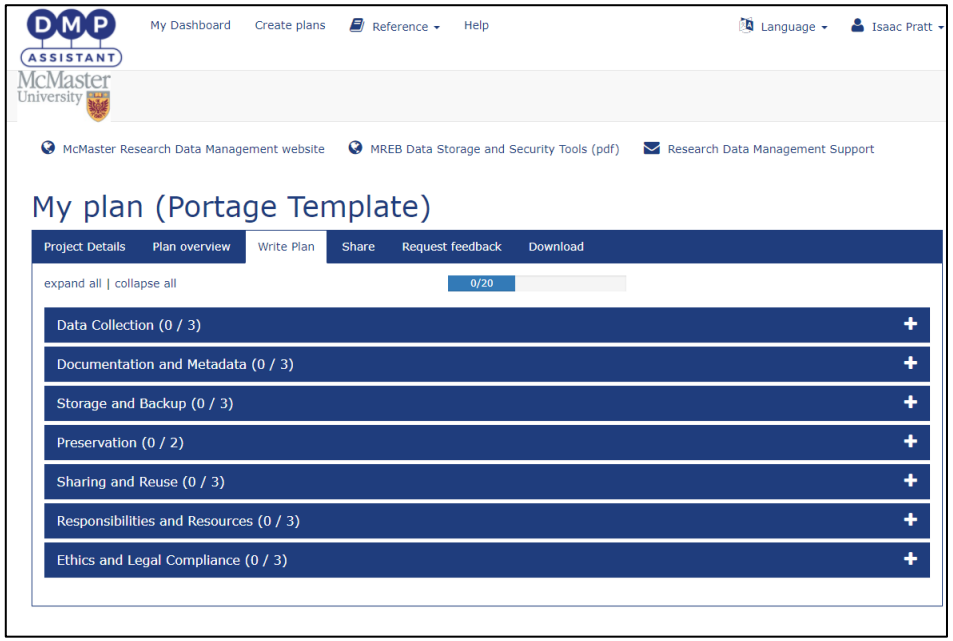
A **Data Management Plan (DMP)** is a living document that describes how you will create, organize, secure, archive, and share or publish your research data.

- DMPs let you proactively determine how you will manage your data through all stages of your research projects and after a project's completion.
- DMPs are an excellent way for you to anticipate and identify opportunities and challenges in managing your data before those opportunities and challenges emerge.

portage
SERVICES PARTAGÉS POUR LES DONNÉES DE RECHERCHE
SHARED STEWARDSHIP OF RESEARCH DATA

DMP ASSISTANT

- A web-based, bilingual data management plan creation tool
- An interactive guide to creating a “good” DMP with built in templates
- Available to all researchers in Canada for free
- Portage also publishes DMP exemplars



https://assistant.portagenetwork.ca/

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Deposit

"Grant recipients are required to deposit into a digital repository all digital research data, metadata and code that support… journal publications and pre-prints"

We support a data repository for McMaster researchers: the **McMaster Dataverse**

Note: Grant recipients will **not** be required to openly share their data

Dates still TBD. SSHRC and some CIHR data is already required to be deposited.

WHY DEPOSIT DATA?

Depositing data helps to ensure that data are **securely preserved** and **accessible** (to you and others) in the long term.

In addition to requirements, you may **want** to deposit your data for the following reasons:

- To comply with potential audits
- A journal may request the data to verify or reproduce your results
- To prevent data loss and keep data organized
- To create a long lasting record or your work
- To enable data sharing, where desired and appropriate

CIHR DATA REQUIREMENTS

CIHR has some specific data related requirements which are currently in force. Researchers are required to:

- **Deposit bioinformatics, atomic, and molecular coordinate data** into the appropriate **public database**
- **Retain original data sets** for a minimum of **five years** after the end of the grant.

SSHRC DATA REQUIREMENTS

SSHRC also has some specific data related requirements which are currently in force. Researchers are required to:

- **Preserve and make available for use by others** all research data collected with the use of SSHRC funds. This must occur within “a reasonable period of time”
- SSHRC considers "a reasonable period" to be within **two years** of the completion of the research project for which the data was collected.

WHERE CAN I DEPOSIT MY DATA?

- A **data repository** is a web platform and storage space for researchers to deposit data sets associated with their research. Repositories provide:
  - long-term storage and access to research data beyond the life of a grant, research project, or individual careers.
  - Discoverability and findability for datasets through features like indexing and DOIs.
  - Easy to use shared platforms designed for researchers

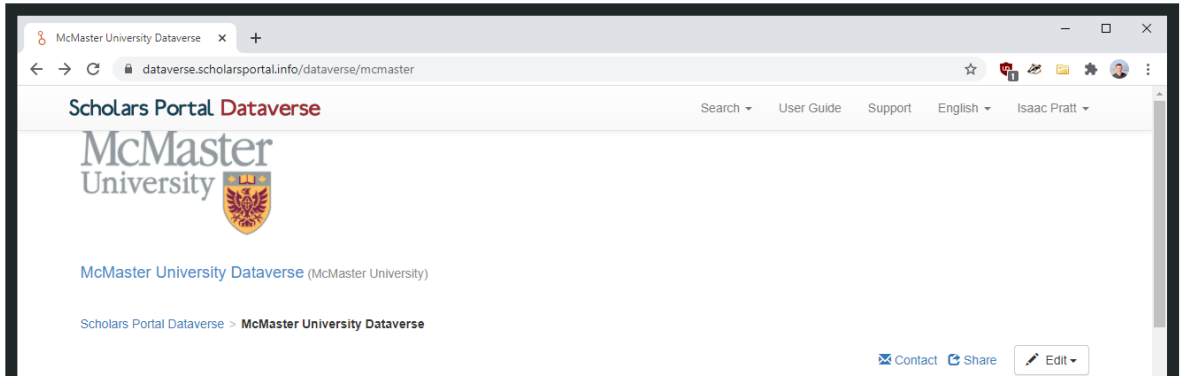
RESEARCH DATA REPOSITORIES

- Institutional Data Repository: **McMaster Dataverse**
- External Data Repositories:
  - Domain specific https://www.nature.com/sdata/policies/repositories
  - **FRDR**, Zenodo, Figshare, Dryad, etc
- Code repositories: Github, Gitlab, BitBucket, etc
- Search for repositories on re3data.org REGISTRY OF RESEARCH DATA REPOSITORIES

MCMASTER DATAVERSE

dataverse.scholarsportal.info/dataverse/mcmaster

- McMaster's Institutional Data Repository is a home for all research data originating from McMaster researchers.
- We provide basic data curation services by professionals at McMaster



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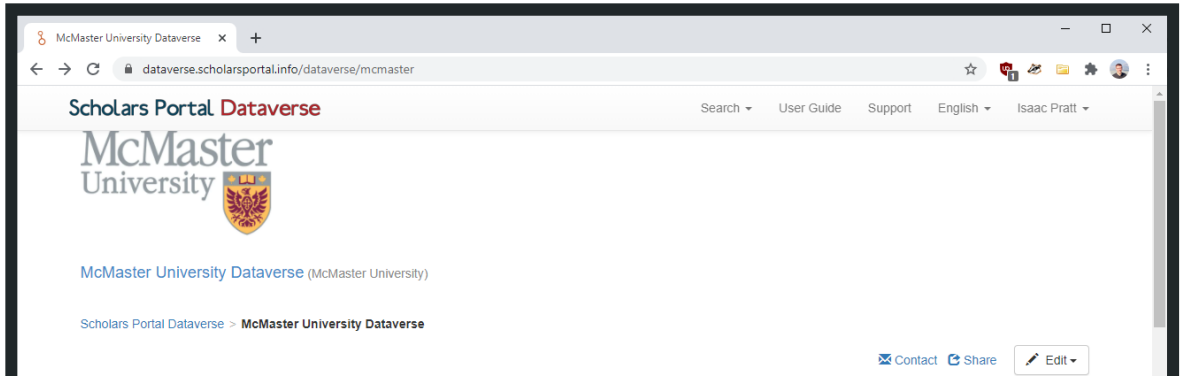
MCMASTER DATAVERSE

- Researchers can control what license they use for data sharing
- Researchers can choose whether to share their datasets openly or through limited access.
- Researchers can monitor statistics about the use of their data.
- Deposits can be set up anonymously for double blind reviews.



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FEDERATED RESEARCH DATA REPOSITORY (FRDR)

https://www.frdr-dfdr.ca/repo/

- Available to any researcher affiliated with a Canadian institution
- Built for large (1 TB+) datasets
- Datasets are actively curated by professional staff at FRDR
- Datasets must be open access but can be embargoed for a one year period

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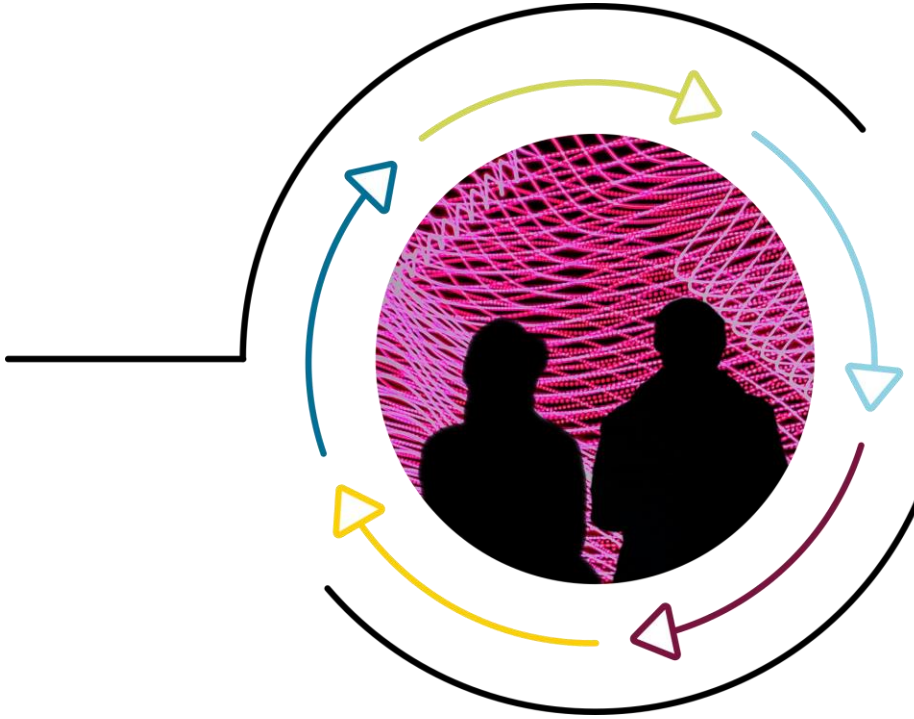
SENSITIVE DATA IN FRDR

The Federated Research Data Repository (FRDR) is working on a pilot project to add optional zero-knowledge encryption to the repository.

"**Zero-knowledge encryption**" means that FRDR will never be able to access your data directly. All datasets that are deposited are encrypted and their keys deposited into a separate researcher managed platform.

This allows you to store your data in a trusted repository for archival but still control a restricted access protocol.

interested in using this service? email me: rdm@mcmaster.ca



Research Data Management Services

McMaster provides **Research Data Management Services** for all researchers including:

- Consultations
- Training
- Resources

Contact us at rdm@mcmaster.ca

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MCMASTER RDM SERVICES: **CONSULTATIONS**

We can meet with a researcher or research group to discuss RDM needs including:

- Data deposit for sharing and archival, with specific support for McMaster Dataverse
- Data Management Plan creation and management
- Data storage & backup, data security, metadata & data documentation

MCMASTER RDM SERVICES: **TRAINING**

We can present targeted workshops to research groups, academic units, or other groups on any aspect of RDM.

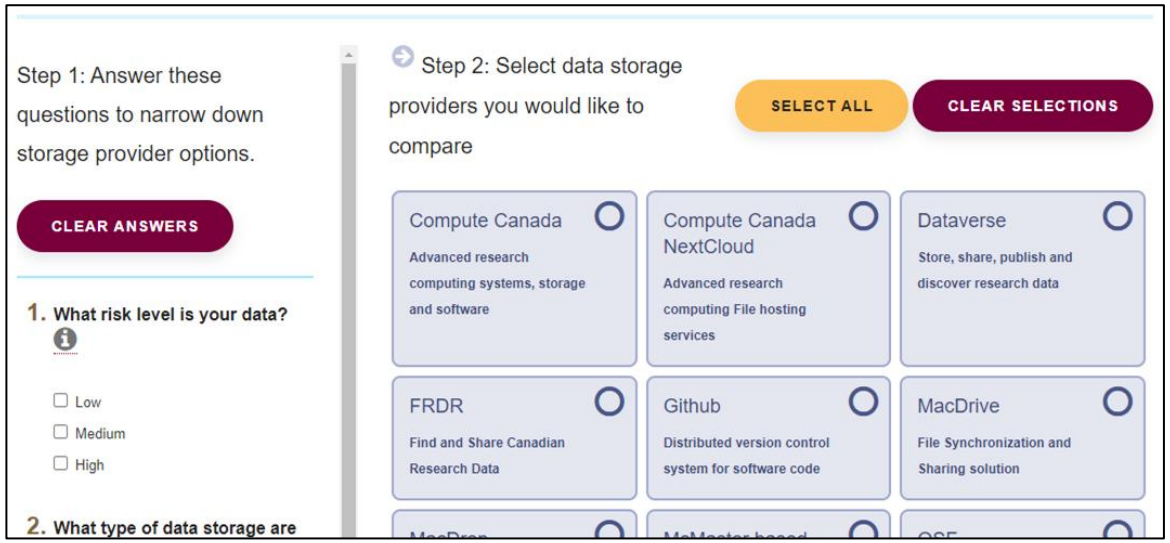
We run public webinars through the Sherman Centre for Digital Scholarship

- Upcoming webinars are listed on the SCDS website
- We post all recordings of previous workshops online

MCMASTER RDM SERVICES: **RESOURCES**

Check out our RDM website with great information and resources: https://rdm.mcmaster.ca/

Research Data Storage Finder http://u.mcmaster.ca/storagefinder



Discussion Prompts

- What aspects of the T-A policy are you unclear or concerned about?
- What impact will the policy have on your research?
- What RDM-related challenges do you face in your research?
- What kinds of resources, services, and supports do you need?

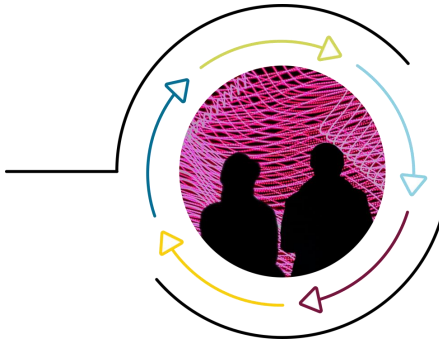
THANK YOU!

Complete McMaster's RDM Needs Assessment Survey:

https://u.mcmaster.ca/rdm-survey

For more information:

Visit: https://rdm.mcmaster.ca/
Contact us at: rdm@mcmaster.ca



Research Data Management Services

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