



What you need to know about the **Tri-Agency Research Data Management Policy**.

Isaac Pratt, PhD + Danica Evering, MA

December 7, 2022



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McMaster University is located on the traditional Territories of the Mississauga and Haudenosaunee Nations, and within the lands protected by the “Dish With One Spoon” wampum agreement.

Laslovarga, "Webster Falls in Winter, Waterdown, Hamilton, Ontario, Canada - Spencer Gorge / Webster's Falls Conservation Area," 23 January 2011, Wikimedia Commons - https://commons.wikimedia.org/wiki/File:Waterdown_Webster_Falls_in_Winter8.jpg

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*Please refer to our code of conduct webpage for more information:
scds.ca/events/code-of-conduct/*

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Questions asked via the chat box will be read by the facilitator without identifying you. Note that you may be identifiable when asking a question during the session in an audio or visual format.

Certificate Program

The Sherman Centre offers a Certificate of Completion that rewards synchronous participation at 7 workshops. We also offer concentrations in Data Analysis and Visualization, Digital Scholarship, and Research Data Management.

*Learn more about the Certificate Program: <https://scds.ca/certificate-program>
If you would like to be considered for the certificate, verify your participation in this form: <https://u.mcmaster.ca/verification>*

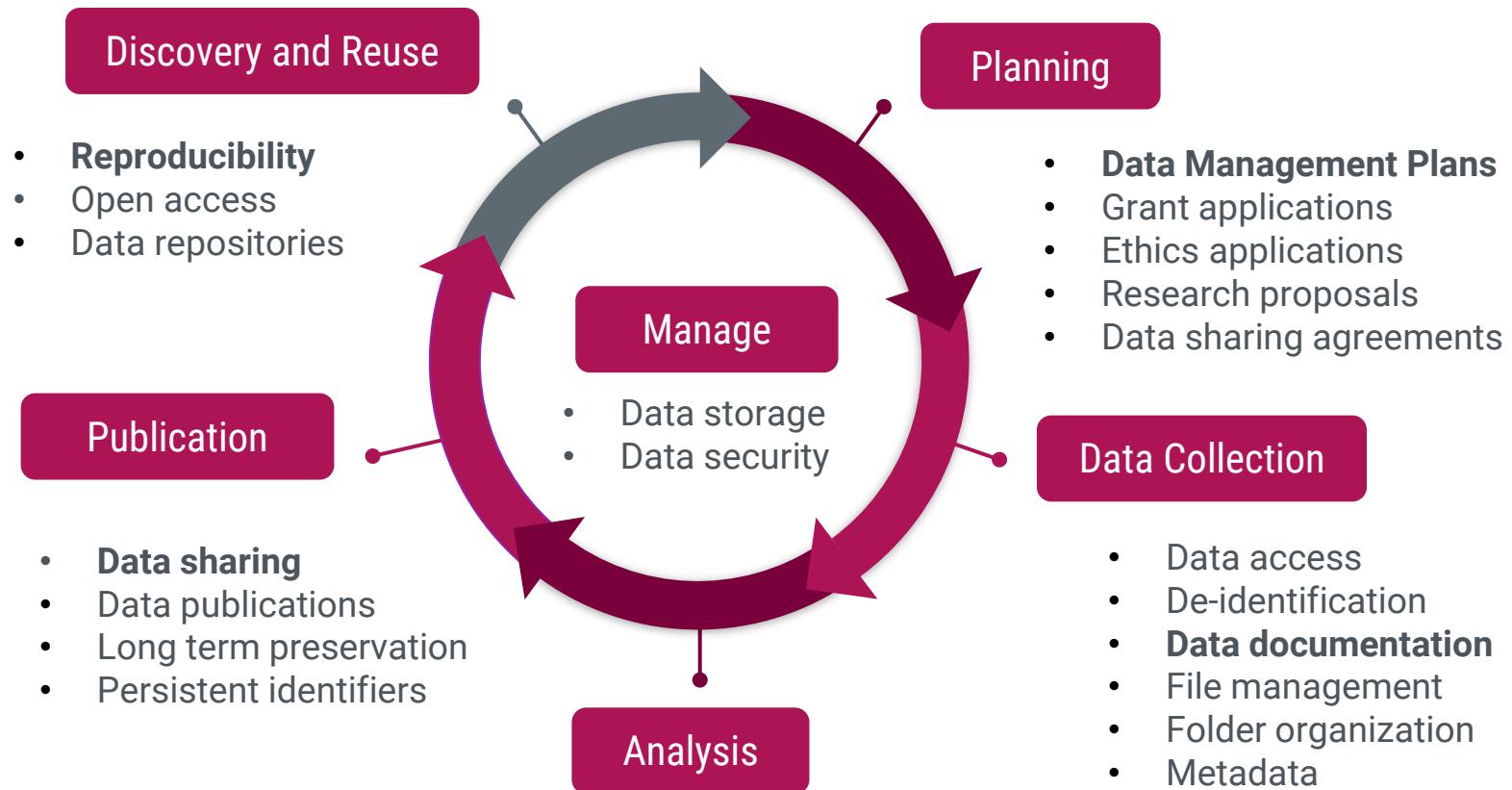
At an unspecified point during the workshop, a code will be read aloud. This is the answer to the third question of the form.

Outline

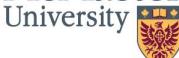
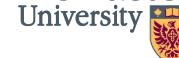
-  What is Research Data Management (RDM) and why should we care about it?
-  How does the new Tri-Agency Policy for RDM impact researchers?
-  How can McMaster RDM Services help?

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 other webinars including “Best Practices for Managing Data in your Research” - <https://scds.github.io/intro-rdm/intro.html>



Good Research Data Management

data organization and planning

data storage and backup strategies

secure data management

depositing and sharing data openly

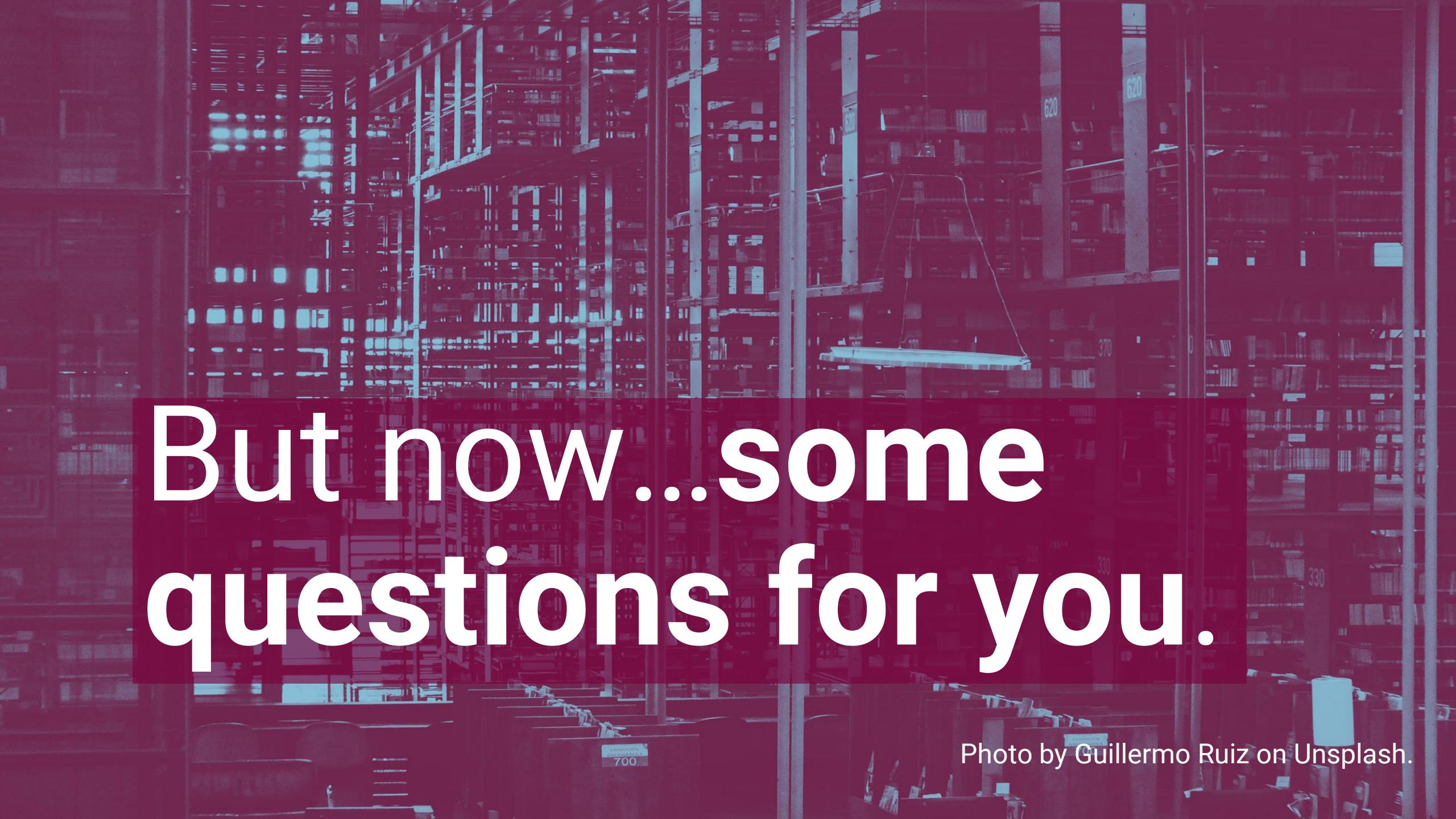
makes your research better.

saves time and resources.

help avoid loss of data from theft, corruption, or failure of storage devices.

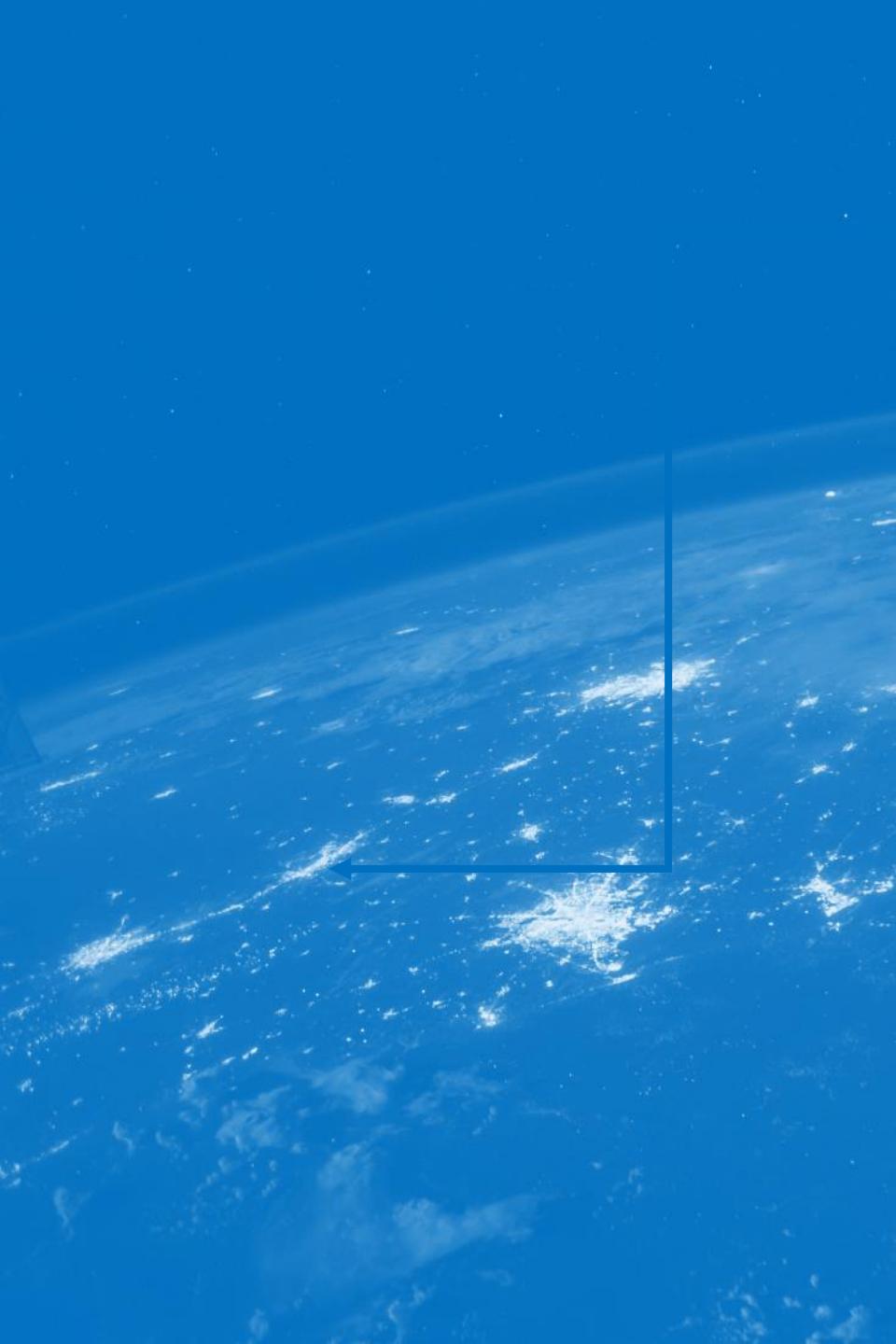
protects research participants and sensitive data.

increases the visibility of research and allows others to reproduce and verify results.



But now...some
questions for you.

Photo by Guillermo Ruiz on Unsplash.



Why do funders care about RDM?

- Maximizing the value of datasets
- Recognizing Indigenous sovereignty
- Protecting research participants and sensitive research data
- Avoiding duplication of data collection
- Reproducibility and trust in research
- Providing public access to research



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

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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.”





CODE:
LOON

RDM Certificate Program

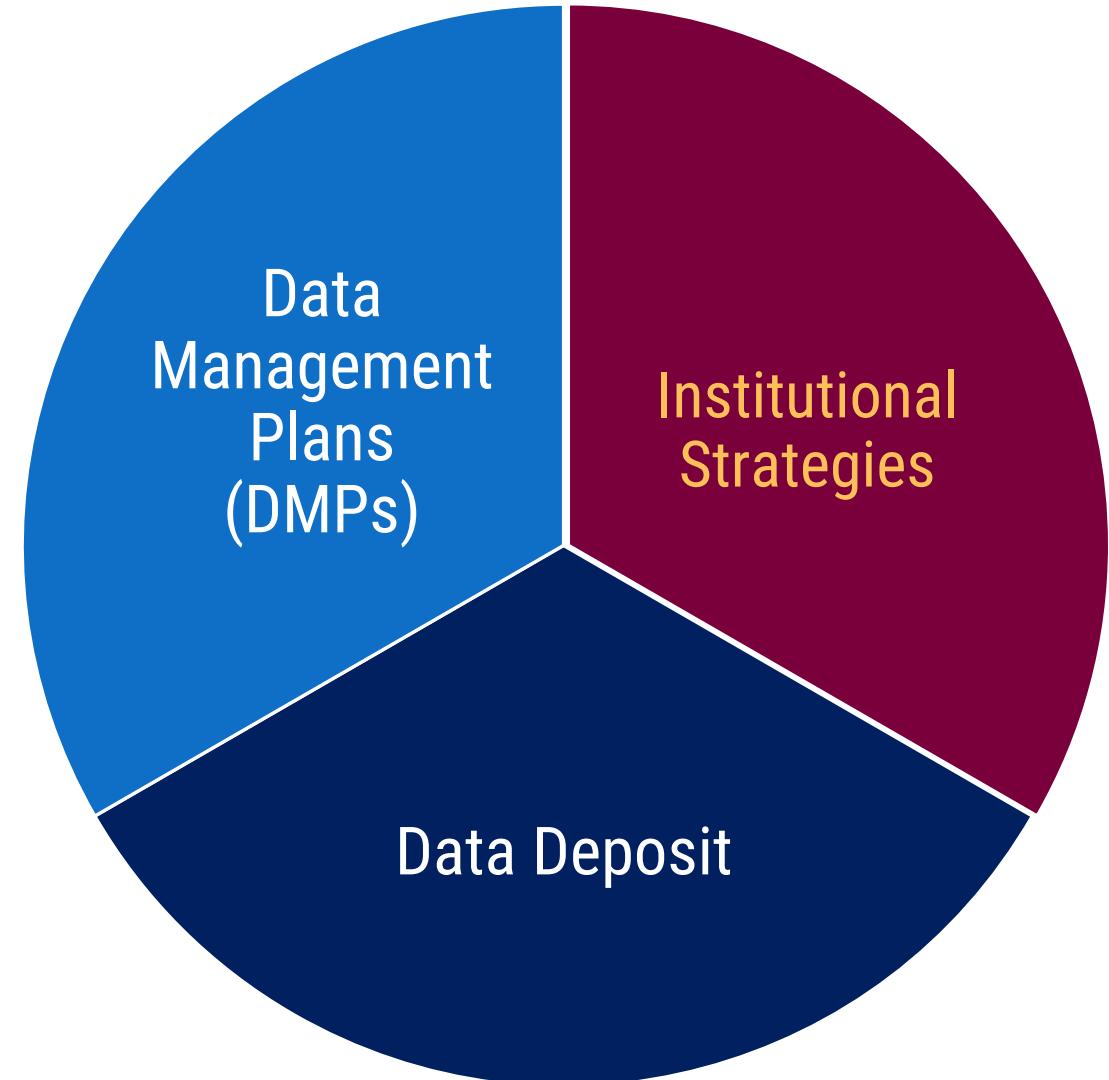
- Certificate you can add to your CV
- Attend 7 RDM workshops to receive the certificate!
- Go to this website to verify today's session:
<https://u.mcmaster.ca/verification>
- Learn more about the Certificate Program:
<https://scds.ca/certificate-program>

Photo by John Picken on
Wikimedia Commons.



Tri-Agency RDM Policy 2021

The screenshot shows the homepage of the Tri-Agency Research Data Management Policy website. At the top, there is a navigation bar with the Canadian flag, "Government of Canada / Gouvernement du Canada", a search bar, and a "MENU" dropdown. Below the menu, a breadcrumb trail reads "Home > Interagency research funding > Policies and Guidelines > Research Data Management". A sidebar on the left contains links for "Research Data Management", "Tri-Agency Statement of Principles on Digital Data Management", "Tri-Agency Research Data Management Policy" (which is highlighted in blue), "Public Consultation Summary", "Open Letter", and "Completed institutional research data". The main content area features the title "Tri-Agency Research Data Management Policy" and a section titled "1. Preamble". The preamble text discusses the three federal granting agencies (CIHR, NSERC, and SSHRC) and their roles in promoting research, training, knowledge transfer, and innovation.



rdm.mcmaster.ca



Institutional Strategies

- “Each postsecondary institution...is required to create an institutional RDM strategy and...make it publicly available on the institution’s website.”
- The Tri-Agencies “expect high quality strategies that outline how the institution will provide its researchers with an environment that enables and supports RDM.”

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

Why does the Tri-Agency want Institutional Strategies?

The requirement is intended to encourage institutions to raise RDM capacity and support capabilities.

Institutional Strategies should:

- Recognize and promote data as an important research output,
- Support researchers in establishing and carrying out RDM practices,
- Recognize Indigenous data sovereignty and the importance of a distinctions-based approach to indigenous research.

The Tri-agencies are not monitoring or evaluating strategies. Published Institutional Strategies can be found here: <https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/research-data-management/published-institutional-research-data-management-strategies>



RDM Institutional Strategy Working Group

The working group was formed in March 2021 as a subcommittee of the Research Information Technology Committee (RITC).

Membership includes representatives from:

- Research Administration Offices (ROADS, HRS, MILO),
- Research Ethics Boards (MREB, HiREB),
- IT units (RHPCS, UTS)
- Hospital Research Offices (St Josephs, HHS, PHRI),
- McMaster's Indigenous Research Institute (MIRI)
- McMaster Libraries (MUL, HSL)
- Faculties of Humanities, Business, Social Science, Engineering, Science, and Health Science.

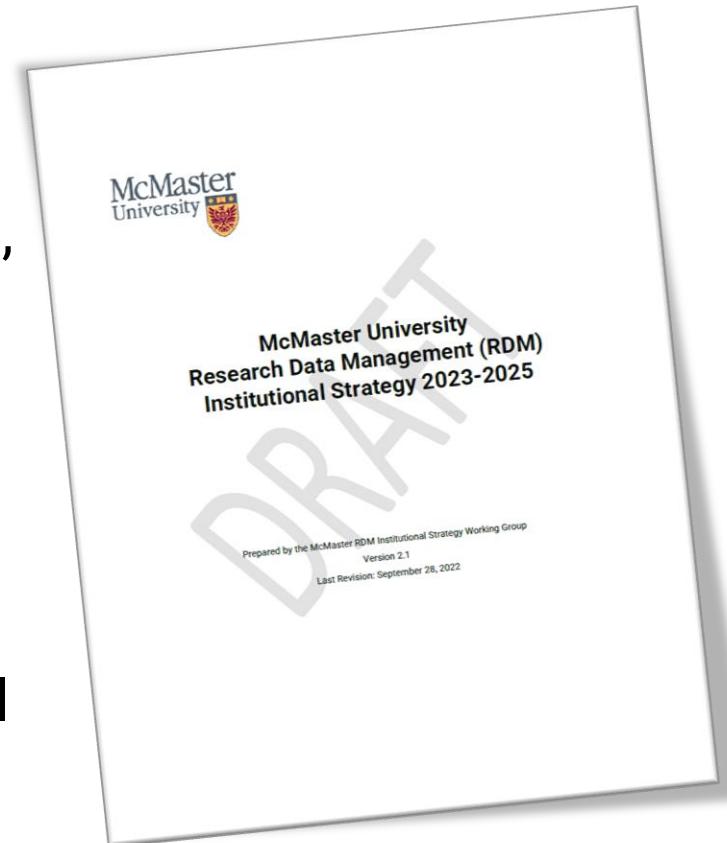
Learn more at rdm.mcmaster.ca/iswg

McMaster's Institutional Strategy For Research Data Management

Vision:

- Support our researchers in producing the **highest quality research**, meeting **disciplinary and funder expectations**, and leading the **adoption of RDM best practices**
- Provide a researcher-focused integrated framework of interconnected and complementary services, infrastructure, policies, practices, guidelines, tools, technologies, training, and support.
- Going beyond the Tri-Agency requirement to build a strategy for all researchers at McMaster

McMaster's Strategy will officially launch in **March 2023**



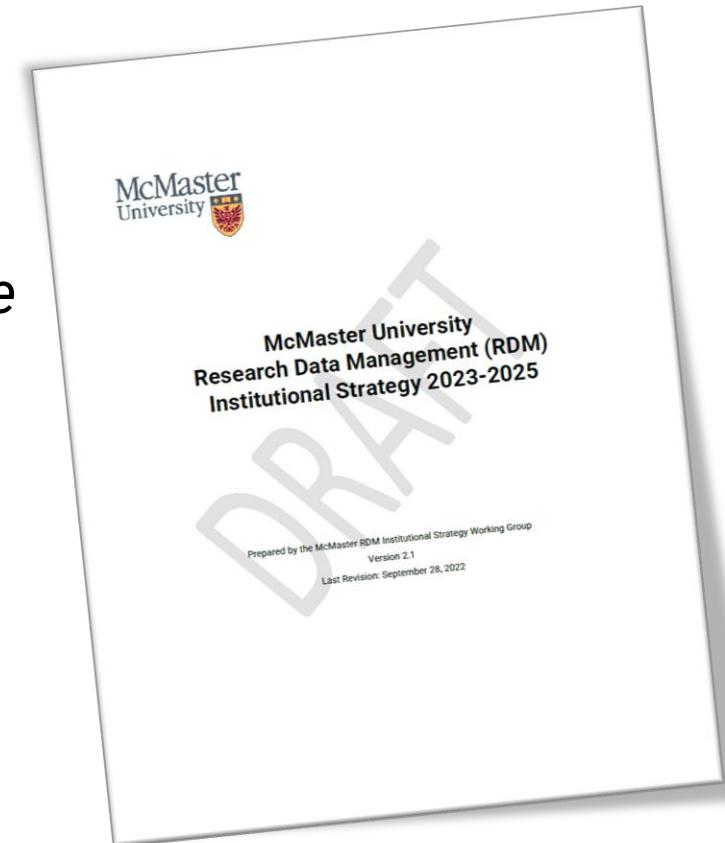
McMaster's Institutional Strategy For Research Data Management

Town Hall (Recording):

With presentations from Matthew Lucas, Executive Director, Corporate Strategy and Performance, SSHRC on behalf of the Tri-Agencies about the new RDM Policy and McMaster RDM Services on how McMaster's RDM Strategy was developed.

Recording is available at: <https://scds.github.io/intro-rdm/townhall.html>

Feedback Form: If you were unable to attend the Town Hall or wish to share more detailed feedback, you can use this anonymous feedback form (u.mcmaster.ca/rdm-feedback) or contact rdm@mcmaster.ca.





Data Management Plans (DMPs)

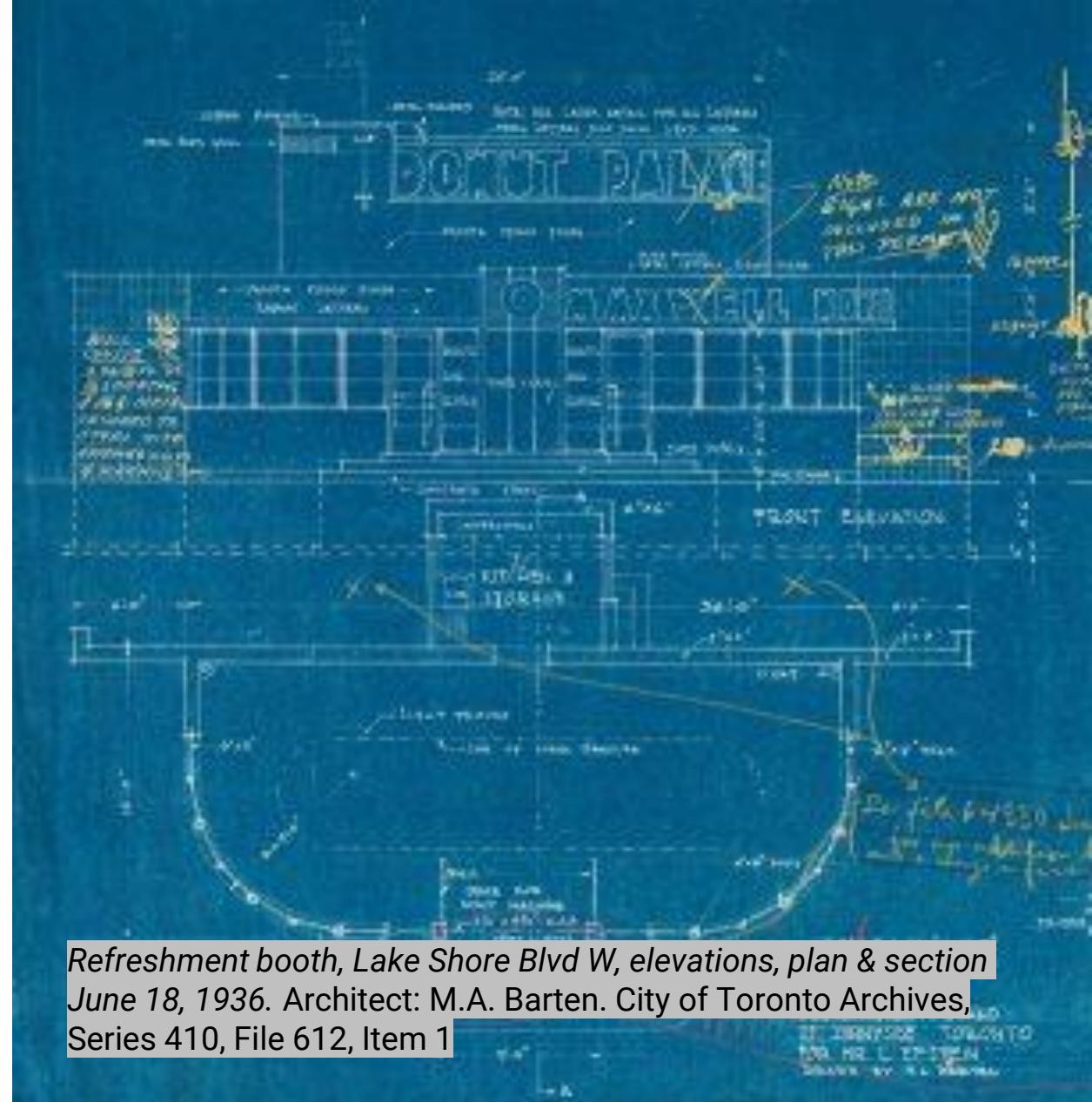
- “For certain funding opportunities, the agencies will require data management plans (DMPs) to be submitted”
- We provide guidance and templates for researchers using the **DMP Assistant**.

This requirement is rolling out in competitions which started this summer 2022.

Data Management Plans

A Data Management Plan (DMP) is a **living document** describing your plan for how you will create, store, organize, document, secure, preserve, and share your research data.

- DMPs ask pointed questions of researchers to help them **articulate their plans for managing data**; *they do not compel researchers to manage data differently*.
- DMPs outline how you will manage data both **during** the active phases of your research and **after** the completion of the research project.
- DMPs are an excellent way for you to **anticipate and identify opportunities and challenges** in managing your data before those opportunities and challenges emerge.



Initial Competitions With DMP Requirements

CIHR

- Network Grants in Skin Health and Muscular Dystrophy (Anticipated launch fall 2022 or early winter 2023)
- Virtual Care/Digital Health Team Grants (Anticipated launch fall 2022 or early winter 2023)
- Data Science for Equity (Anticipated launch fall 2022 or early winter 2023)

NSERC

- Subatomic Physics Discovery Grants - Individual and Project (Anticipated launch summer 2023)

SSHRC

- Partnership Grants Stage 2 (Anticipated launch summer 2023)

Link: https://science.gc.ca/eic/site/063.nsf/eng/h_547652FB.html

Pilot DMP Assessments

For initial competitions:

- Recommend the use of the [DMP Assistant](#)
- Expect for DMPs around 2-3 pages
- Reviewers will comment on DMPs but not use them in application scoring
- DMPs may be reviewed at the mid-term review stage.
- External consultation will take place in early 2023.



Photo by [Beatriz Pérez Moya](#) on [Unsplash](#)



DMP Assistant

- A web-based, bilingual data management planning tool
- An interactive guide to creating a “good” DMP with built-in templates
- Available to all McMaster researchers for free – MacID SSO
- Alliance also publishes [DMP Exemplars](#)
- Exportable data management plans



My plan (Portage Template)

Project Details	Plan overview	Write Plan	Share	Request feedback	Download
expand all collapse all 0/20					
Data Collection (0 / 3) +					
Documentation and Metadata (0 / 3) +					
Storage and Backup (0 / 3) +					
Preservation (0 / 2) +					
Sharing and Reuse (0 / 3) +					
Responsibilities and Resources (0 / 3) +					
Ethics and Legal Compliance (0 / 3) +					

<https://assistant.portagenetwork.ca/>



Data 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”

Grant recipients will not be required to openly share data.

Rollout will follow review of institutional strategies and in line with readiness of Canadian research community. 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 of your work
- To enable data sharing, where desired and appropriate

Photo by Taylor Vick on Unsplash.



CIHR Data Deposit 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** or longer if other policies apply.
- **Annex:** Examples spreadsheet linking research data outputs to corresponding archive/repository/database.
<https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/open-access/annex>

SSHRC Data Availability Requirements

SSHRC also has some specific data related requirements currently in force which were initially established in 1990 and updated in 2016. 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.

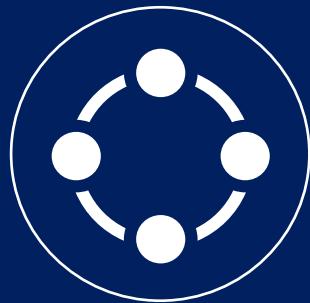


Where can I deposit my data?

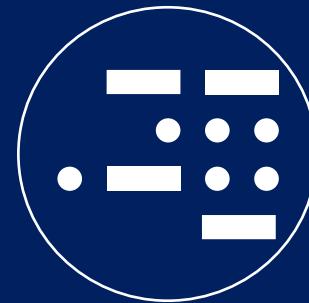
Publishing data in a recognized data repository is the best way to share data. There are thousands of data repositories.



Domain Specific Repositories
Focus on certain types of data such as genomic information or astronomical information.



General Repositories
Accept broader types of research data. ex. *McMaster Dataverse* (*part of Borealis*) and *Canada's Federated Research Data Repository (FRDR)*.



Code Repositories
There are also code-specific repositories like Github, Gitlab, BitBucket, SourceForge

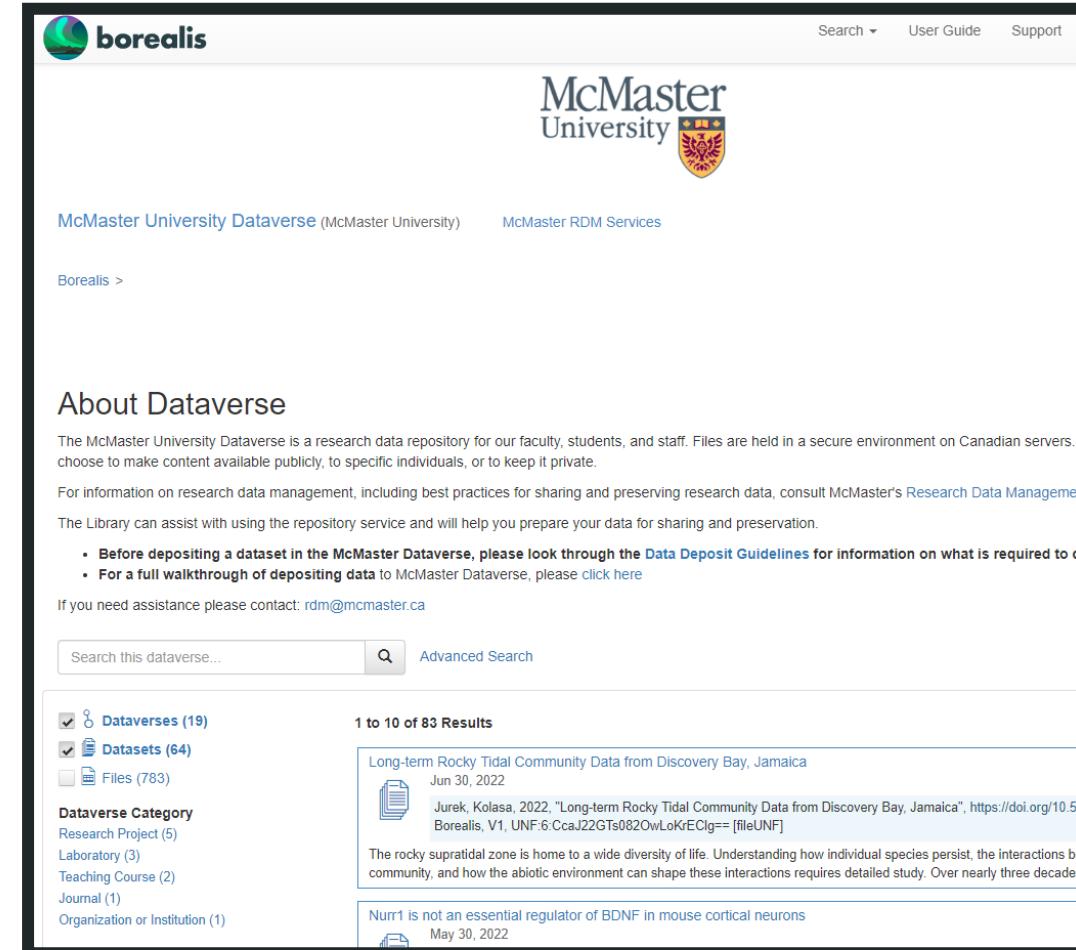


Repository Finder
This tool by DataCite can help you find an appropriate repository to deposit your research data:
<https://repositoryfinder.datacite.org>

McMaster Dataverse

<https://borealisdata.ca/dataverse/mcmaster>

- Institutional Data Repository: home for all research data originating from McMaster researchers.
- Built for **datasets**.
- Contains tools for tabular data exploration and analysis.
- Locally administered at McMaster with servers in Canada.
- Part of Canada-wide Borealis Network
- McMaster provides basic data curation services
(Not recommended for sensitive data)



The screenshot shows the McMaster University Dataverse homepage. At the top, there is a header with the Borealis logo, the text "borealis", and navigation links for "Search", "User Guide", and "Support". To the right of the header is the McMaster University logo, which includes a crest and the text "McMaster University". Below the header, there are two blue links: "McMaster University Dataverse (McMaster University)" and "McMaster RDM Services". A breadcrumb trail "Borealis >" is visible. The main content area is titled "About Dataverse" and contains text about the repository's purpose and administration. It also includes a list of guidelines for depositing datasets and contact information for assistance. Below this, there is a search bar with the placeholder "Search this dataverse..." and a link to "Advanced Search". On the left, there is a sidebar with filters: "Dataverses (19)", "Datasets (64)", and "Files (783)". Under "Dataverse Category", there are links for "Research Project (5)", "Laboratory (3)", "Teaching Course (2)", "Journal (1)", and "Organization or Institution (1)". The main content area displays a list of results, starting with "Long-term Rocky Tidal Community Data from Discovery Bay, Jamaica" by Jurek, Kolasa, dated Jun 30, 2022. The results are paginated "1 to 10 of 83 Results".

McMaster Dataverse: Capabilities



Limit Access: Researchers can choose whether to share their datasets openly or through limited access.



Monitor Statistics: Researchers can monitor statistics about the use of their data.

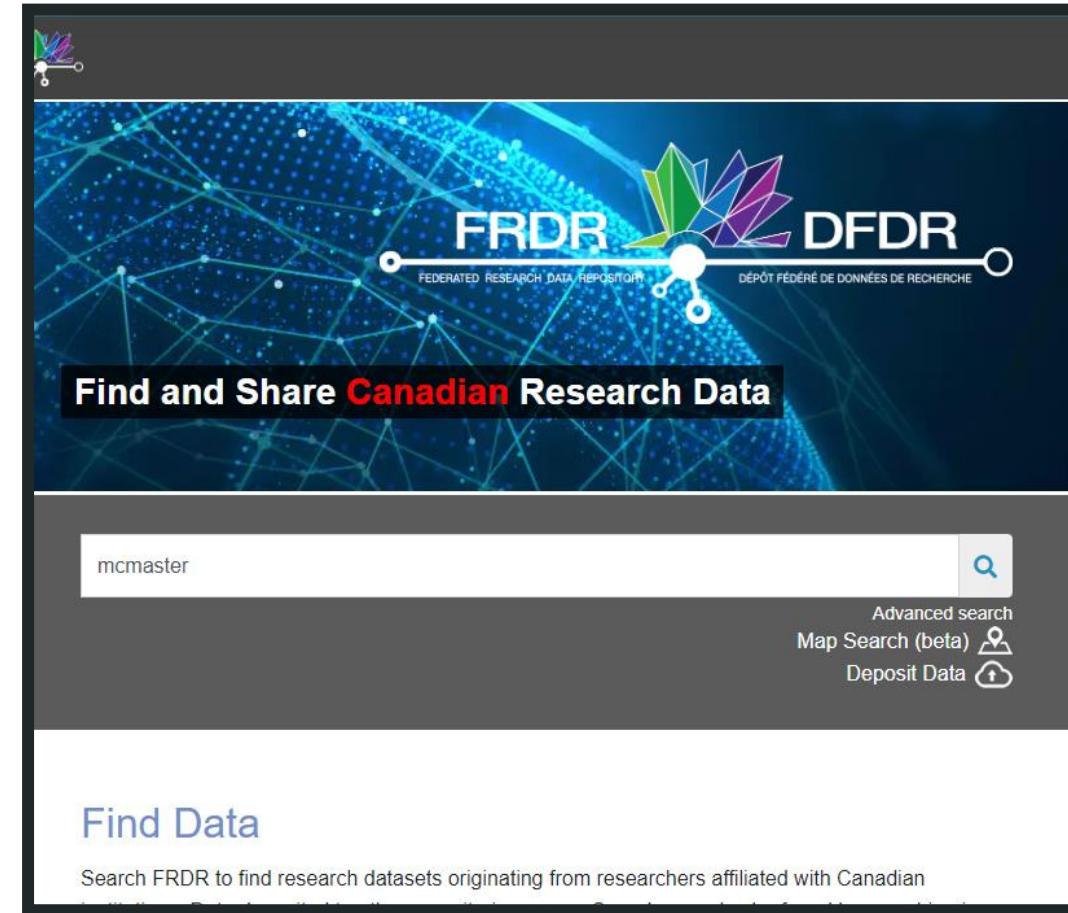


Anonymous Deposits: Deposits can be set up anonymously for double blind reviews.

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





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 us: rdm@mcmaster.ca

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

Schedule a consultation at
u.mcmaster.ca/rdm-appointments

[Make an Appointment - McMaster University Library](#)

1. Select a staff member:

Research Consultation (45 minutes)

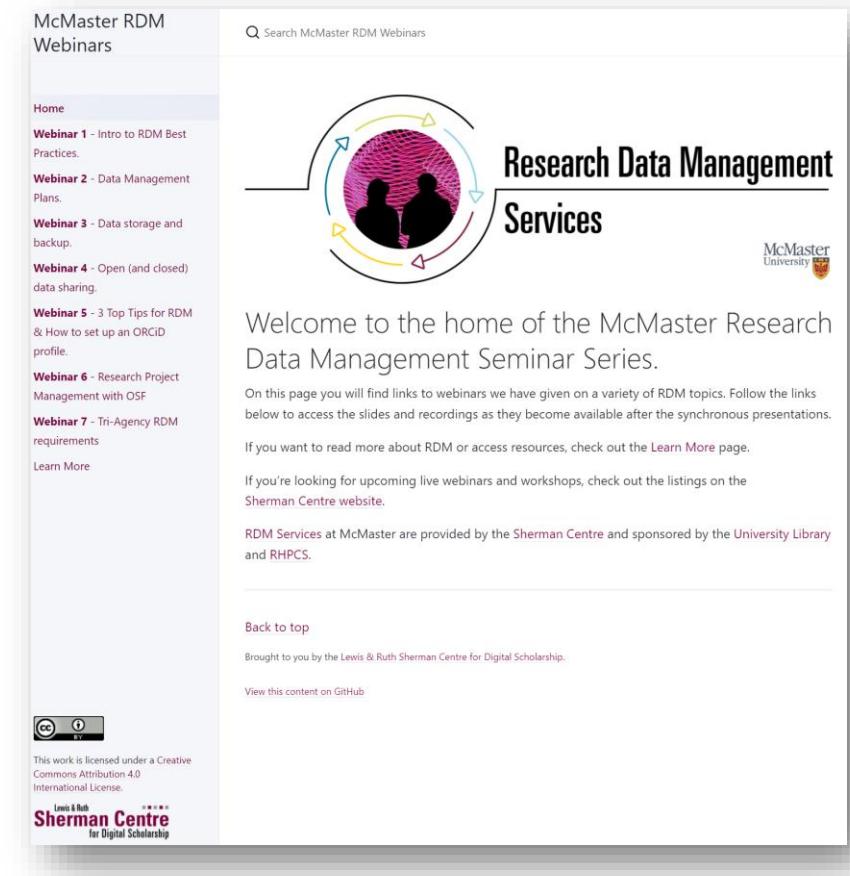
- No preference
- Isaac Pratt - Research Data Management
- Danica Evering - Research Data Management Specialist

RDM Services: Training

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

- **Current Webinars:** These can be a good place to learn and to ask questions. Register for events at rdm.mcmaster.ca/events
- **Class visits & Modules:** An RDM Specialist can prepare a module and present in your class.
- **Recordings:** Asynchronous review is available through webinar recordings and slides. Learn from past webinars at u.mcmaster.ca/learn-rdm.

To request training on a specific topic, email
rdm@mcmaster.ca



The screenshot shows the McMaster RDM Webinars homepage. The header features the McMaster University logo and the text "Research Data Management Services". A search bar is at the top right. Below the header is a circular graphic with two silhouettes and arrows, followed by the text "Research Data Management Services". The main content area is titled "McMaster RDM Webinars" and includes a sidebar with links to various webinars. The sidebar lists:

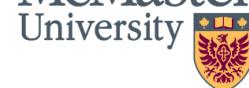
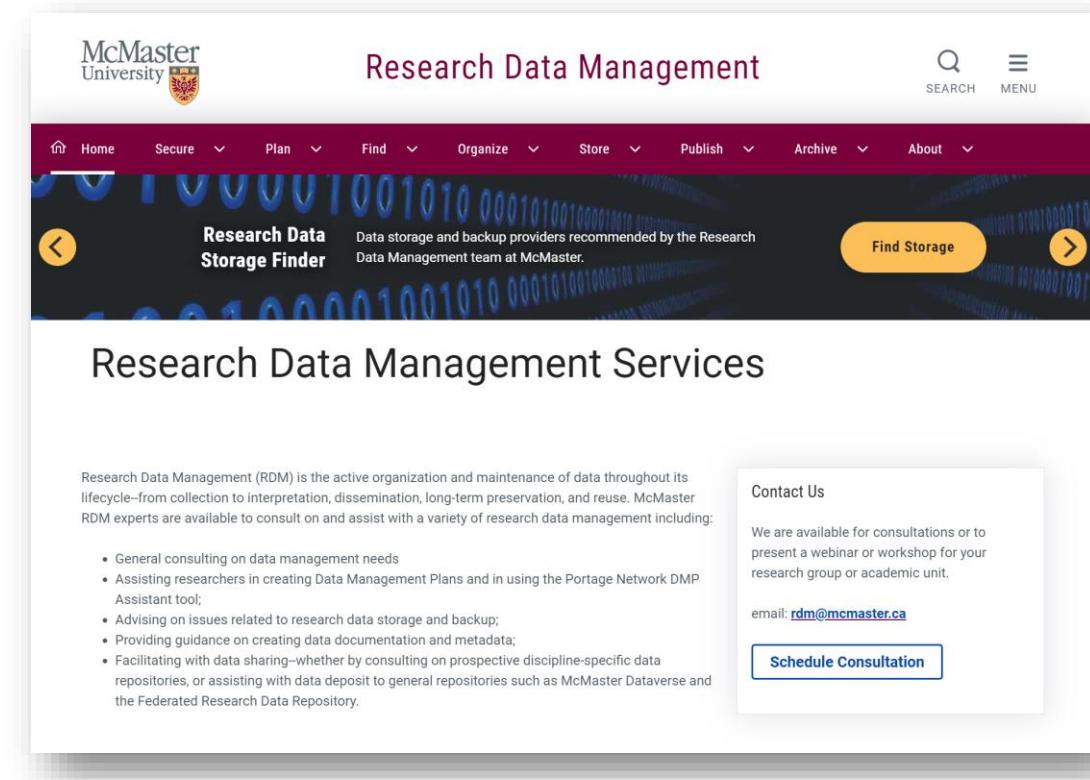
- Home
- Webinar 1 - Intro to RDM Best Practices.**
- Webinar 2 - Data Management Plans.**
- Webinar 3 - Data storage and backup.**
- Webinar 4 - Open (and closed) data sharing.**
- Webinar 5 - 3 Top Tips for RDM & How to set up an ORCID profile.**
- Webinar 6 - Research Project Management with OSF**
- Webinar 7 - Tri-Agency RDM requirements**

Links for "Learn More" and "View this content on GitHub" are also present. The footer includes a Creative Commons license notice, the Sherman Centre logo, and links to the Lewis & Ruth Sherman Centre for Digital Scholarship and the University Library and RHPCs.

RDM Services: Website

- McMaster's research data management services website contains links, overviews, and resources for every stage of the research cycle.
- Learn more about how to Secure, Plan, Find, Organize, Store, Publish, and Archive data throughout the research cycle.
- Access our Frequently Asked Questions and recent RDM News.

Visit the website at rdm.mcmaster.ca



RDM Services: Data Storage Finder

- McMaster RDM Services has a **Data Storage Finder**, an interactive tool to help you find a vetted storage provider.
- Answer questions to narrow down options depending on risk, volume, and other needs.
- This tool also allows you to compare feature sets of selected options.

Access the Data Storage Finder at
<https://rdm.mcmaster.ca/finder>

Data Storage Finder

The tool is currently in testing, if you have any comments, please fill out our [feedback form](#). As McMaster data storage guidelines and practices change and evolve, the data storage providers listed here may change.

This interactive tool lists various data storage and backup providers recommended by the Research Data Management team at McMaster. If none of these providers meet your needs, contact us to set up a [consultation](#). To use the tool, just follow the following steps:

Step 1: Answer a few questions about your research data storage needs. Answering these questions will recommend specific options for data storage providers that will meet your needs.

Step 2: Choose the data storage providers you would like to compare

Step 3: Explore the details of the providers you have chosen.

Step 1: Answer these questions to narrow down storage provider options.

Clear Answers

1. What risk level is your data? ⓘ

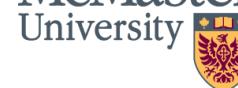
Low
 Medium
 High

2. What type of data storage are you looking for? ⓘ

Step 2: Select data storage providers you would like to compare

Select All **Clear Selections**

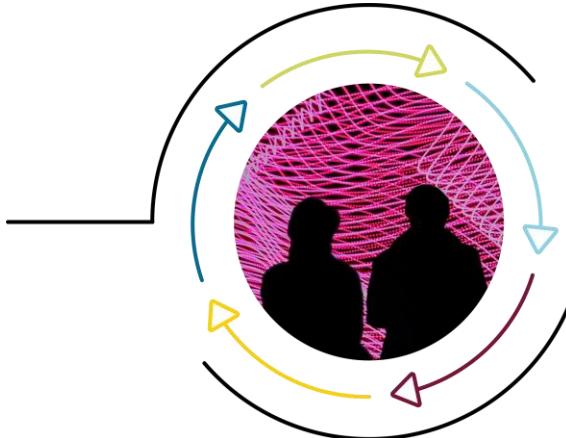
Compute Canada	Compute Canada NextCloud	Dataverse	FRDR
Advanced research computing systems, storage and software	Advanced research computing File hosting services	Store, share, publish and discover research data	Find and Share Canadian Research Data
Github	MacDrive	MacDrive (Encrypted Data)	MacDrop
Distributed version control system for software code	File Synchronization and Sharing solution	Encrypted File Synchronization and Sharing solution	Web service to store and transfer files



Discussion Prompts:

- What aspects of the Tri-Agency 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?

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Research Data Management

Services

McMaster RDM webpage: rdm.mcmaster.ca

Contact RDM services at: rdm@mcmaster.ca

Upcoming RDM webinars: rdm.mcmaster.ca/events

Recorded RDM webinars: u.mcmaster.ca/learn-rdm

Make an appointment with a Research Data Management Specialist:
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