

Research Data Management: National and Institutional Updates

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J. Brodeur <brodeujj@mcmaster.ca>
McMaster University Libraries



**MAPS
DATA
GIS**

 Search

Partnerships and Projects

Meet Canada's scientists and professionals

Canadian High Arctic Research Station

Northern Contaminants Program

Canada's Extended Continental Shelf Program

Health Canada: Centre for Vaccine Evaluation

Science and Technology Data

Research Funding Collaboration

Co-operative Funding Programs

Policies and Guidelines

Open Access

Selecting the Appropriate Federal Granting Agency

Research Ethics

Responsible Conduct of Research

Public Communications

Tri-Agency Statement of Principles on Digital Data Management

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.

As publicly funded organizations, the agencies are strong advocates for making the results of the research they fund as accessible as possible. In promoting access to research results, they aspire to advance knowledge, avoid research duplication and encourage reuse, maximize research benefits to Canadians and showcase the accomplishments of Canadian researchers. These aspirations align with the Government of Canada's commitment to open science, as described in [Seizing Canada's Moment: Moving Forward in Science, Technology and Innovation](#)(2014).

Research data include observations about the world that are used as primary sources to support scientific and technical inquiry, scholarship and research-creation, and as evidence in the research process.¹ Research data are gathered through a variety of methods, including experimentation, analysis, sampling and repurposing of existing data. They are increasingly produced or translated into digital formats. When properly managed and responsibly shared, these digital resources enable researchers to ask new questions, pursue novel research programs, test alternative hypotheses, deploy innovative methodologies and collaborate across geographic and disciplinary boundaries. The ability to store, access, reuse and build upon digital research data has become critical to the advancement of science and scholarship, supports innovative solutions to economic and social challenges, and holds tremendous potential for Canada's productivity, competitiveness and quality of life.

Overview

1. Summary of the *Statement*
2. Implications for researchers & institutions: What comes next?
3. Building capacity to support research data management

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

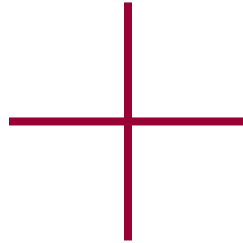
Tri-Agency Statement of Principles on Digital Data Management: **Responsibilities**

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

So, what does it mean?
What comes next?

What it means; what comes next

- ✧ *Statement of Principles* as a framework / roadmap
 - No new mandates or requirements
- ✧ Agencies are working on developing policies
 - SSHRC pilot projects underway | CIHR pilot planned for 2016
- ✧ Strong interest in approaches adopted in other nations
 - US, UK, AUS, NL [Data management plans; data repositories]
- ✧ Institutional RDM policy development
- ✧ GoC: Draft New Plan on Open Government 2016-2018

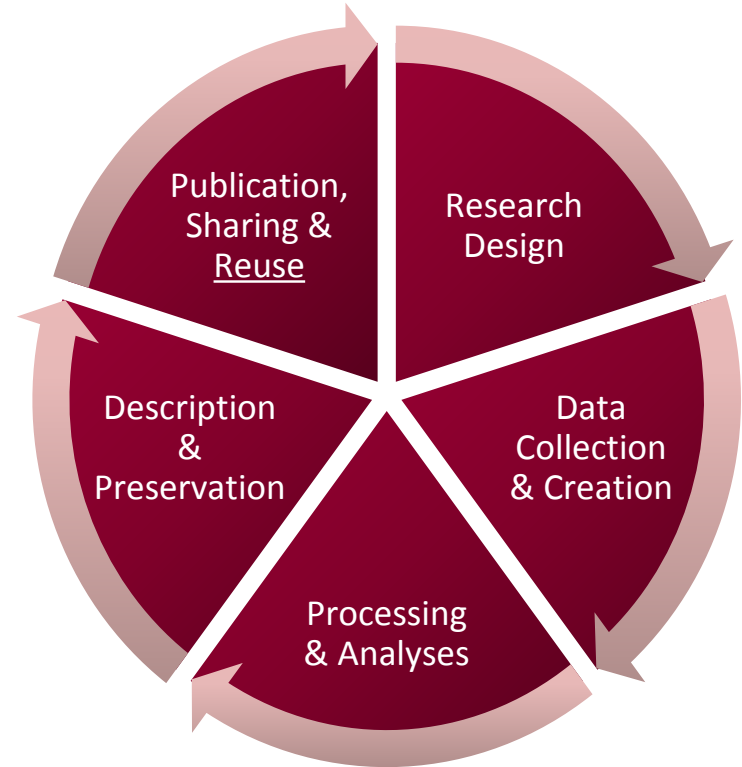
Building Capacity to Support Research Data Management

Research **D**ata **M**anagement is...

... the **active organization** & maintenance of data

... the **application of best practices** to ensure data security, accessibility, usability, and integrity

... a **set of activities** resulting in self-describing data sets that can be discovered and reused.



RDM capacity development at various scales

Institutional



Provincial / National



International





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What are researchers' data management obligations?

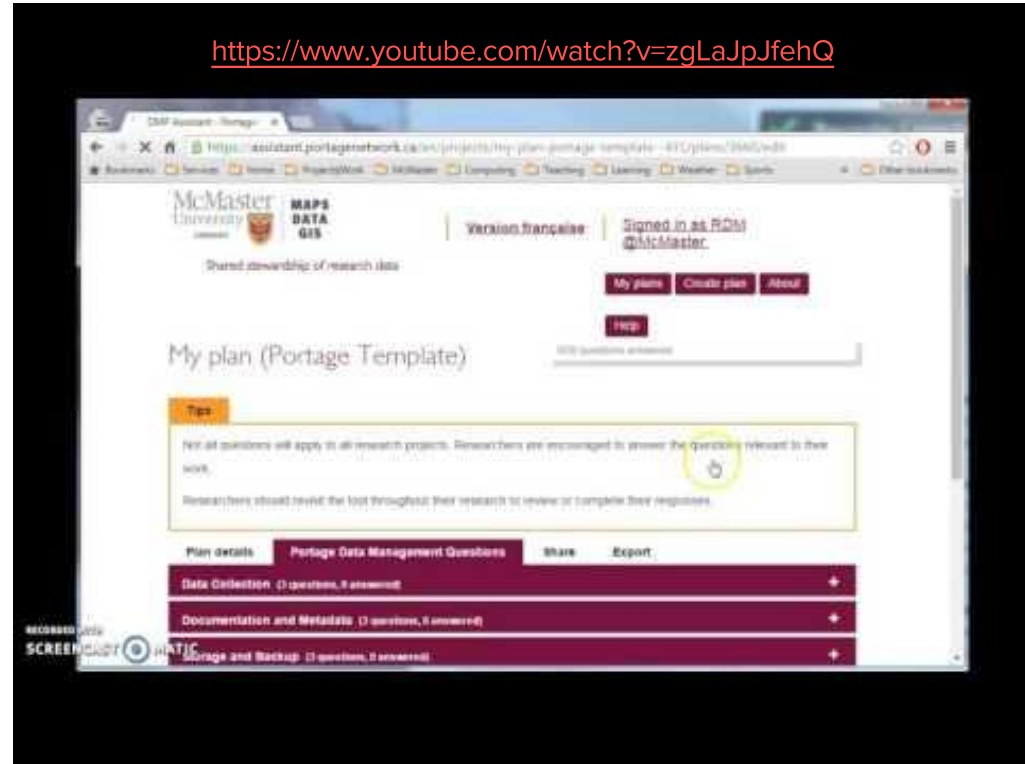
What challenges do researchers face in managing their data?

How can the library help researchers address their data management needs?

Portage DMP Assistant

- ✧ A web-based, bilingual data management planning tool.
- ✧ Available to all researchers in Canada.
- ✧ A guide for best practices in data stewardship.
- ✧ Exportable data management plans.

<https://www.youtube.com/watch?v=zgLaJpJfehQ>



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

re3data.org

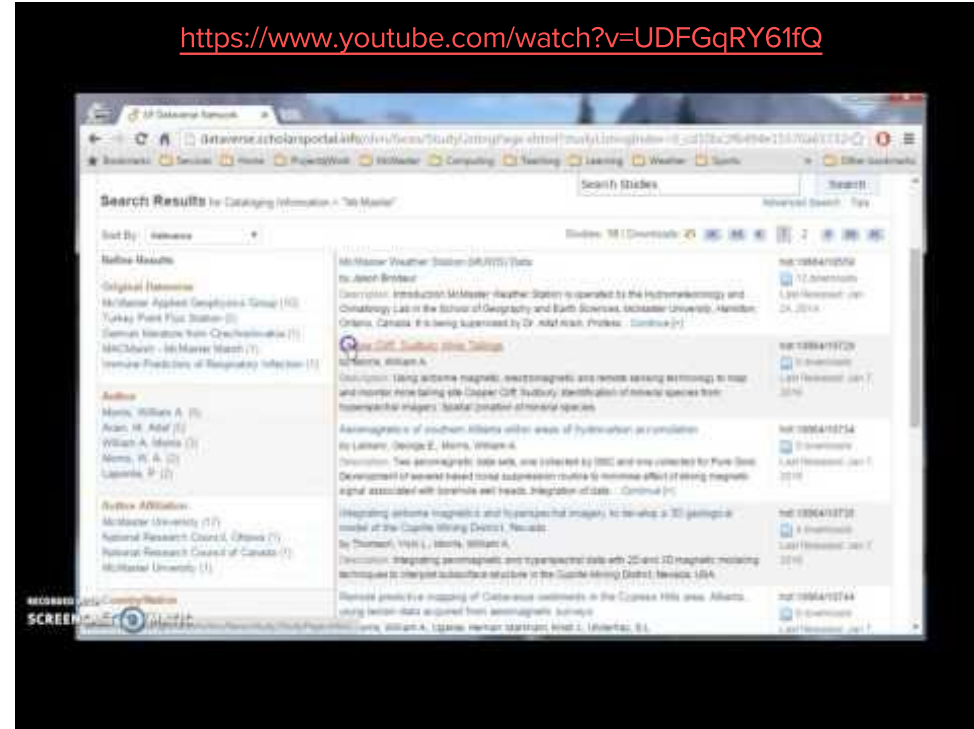
✧ Registry of research data repositories

The screenshot shows the re3data.org website interface. At the top right is the McMaster University LIBRARY logo. The main header features the re3data.org logo and the text 'REGISTRY OF RESEARCH DATA REPOSITORIES'. Below this is a navigation bar with links: Home, Search, Browse, Suggest, FAQ, About, Schema, API, Contact, and Legal notice / Impressum. The main content area is titled 'Browse by subject' and includes two tabs: 'Graphical' (selected) and 'Text'. A green instruction box states: 'click to zoom into subjects or to select a bottommost subject in the hierarchy as filter for the re3data search page ctrl + click on a top subject to select it as filter'. The central feature is a sunburst chart representing a hierarchical classification of subjects. The innermost ring contains major categories: Engineering and Technology, Humanities, Social and Behavioral Sciences, Biology, Agriculture, Veterinary, and Natural Sciences. The middle ring further divides these into sub-fields like Mechanical and Industrial Engineering, Physics, Chemistry, and various disciplines within the Humanities and Social Sciences. The outermost ring lists even more granular sub-subjects. The chart is color-coded by major category: Engineering (blue), Humanities (yellow), Social and Behavioral (orange), Biology (red), Agriculture (pink), and Natural Sciences (green).

Scholars Portal Dataverse

- ✧ A data repository for researchers at Ontario's universities.
- ✧ An online platform to share, preserve, cite, explore and analyze research data.
- ✧ Allows researchers to control how they share their data.
- ✧ Supports data DOI registration through Datacite Canada.

<https://www.youtube.com/watch?v=UDFGqRY61fQ>



<http://dataverse.scholarsportal.info/dvn/>

More Information

<https://portagenetwork.ca/> - CARL Portage Network page: RDM information and access to DMP Assistant

<http://www.science.gc.ca/default.asp?lang=En&n=83F7624E-2> - Statement of Principles on Digital Data Management

<http://library.mcmaster.ca/rdm> - RDM@McMaster homepage

<http://www.re3data.org/> - Registry of research data repositories

<http://dataverse.scholarsportal.info/dvn/> - Scholars Portal Dataverse

Thank You.

RDM
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Check out <http://library.mcmaster.ca/rdm> for more information

Contact us at rdmgmt@mcmaster.ca