

# Open Scholarship: Requirements & Resources

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*Open access, open data, open identifiers*

Jay Brodeur  
McMaster University Library  
23-Feb, 2018



# Itinerary

## Open Access

- ✧ Tri-Agency policy
- ✧ Resources (MacSphere; DOAJ; Sherpa/ROME0)

## Research Data Management & Open Data

- ✧ Tri-Agency policy development
- ✧ Resources (DMP Assistant, OSF, Dataverse)

## ORCID ID

- ✧ What is it? Why use it?
- ✧ How to maximize its value.

# Open Access

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*“Open Access (OA) literature is digital, online, free of charge,  
and free of most copyright and licensing restrictions”*

- [Peter Suber](#)

# Tri-Agency Open Access Policy on Publications



**Government  
of Canada**

**Gouvernement  
du Canada**



Home → [Collaboration between Federal Research Funding Organizations](#) → [Policies and Guidelines](#)  
→ [Open Access](#)

## Tri-Agency Open Access Policy on Publications

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### 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 and innovation within Canada. As publicly funded organizations, the Agencies have a

[http://www.science.gc.ca/eic/site/063.nsf/eng/h\\_F6765465.html](http://www.science.gc.ca/eic/site/063.nsf/eng/h_F6765465.html)

*“Grant recipients are required to ensure that any peer-reviewed journal publications arising from Agency-supported research are freely accessible within 12 months of publication”*

# Open Access: Two venues for publishing

## OA Journals (“Gold OA”)

- ✧ Immediate OA provided by a publisher (processing fees may apply)
- ✧ Directory of Open Access Journals ([doaj.org](https://doaj.org))
- ✧ Fees are eligible [Use of Grant Funds](#)

## OA Repositories (“Green OA”)

- ✧ Preprints and/or Postprints (before or after copy-editing)
- ✧ Directory of Open Access Repositories ([opendoar.org](https://opendoar.org))
- ✧ [SHERPA/RoMEO](#): Database of publisher copyright policies

openaccess.mcmaster.ca

OA information for researchers

Customized for McMaster

Links to the Library's

[Open Access Interactive Tool](#)

[https://www.youtube.com/watch?v=BPSq\\_zM5W80](https://www.youtube.com/watch?v=BPSq_zM5W80)



Copyright  
Research Support  
Readings  
McMaster Initiatives

How **library** stuff works  
video tutorials

RESPECT

**OPEN ACCESS**

How do I comply with the Tri-Agency Policy?  
To find out, use the [Open Access Interactive Tool](#)

RECORDED WITH SCREENCAST O MATIC

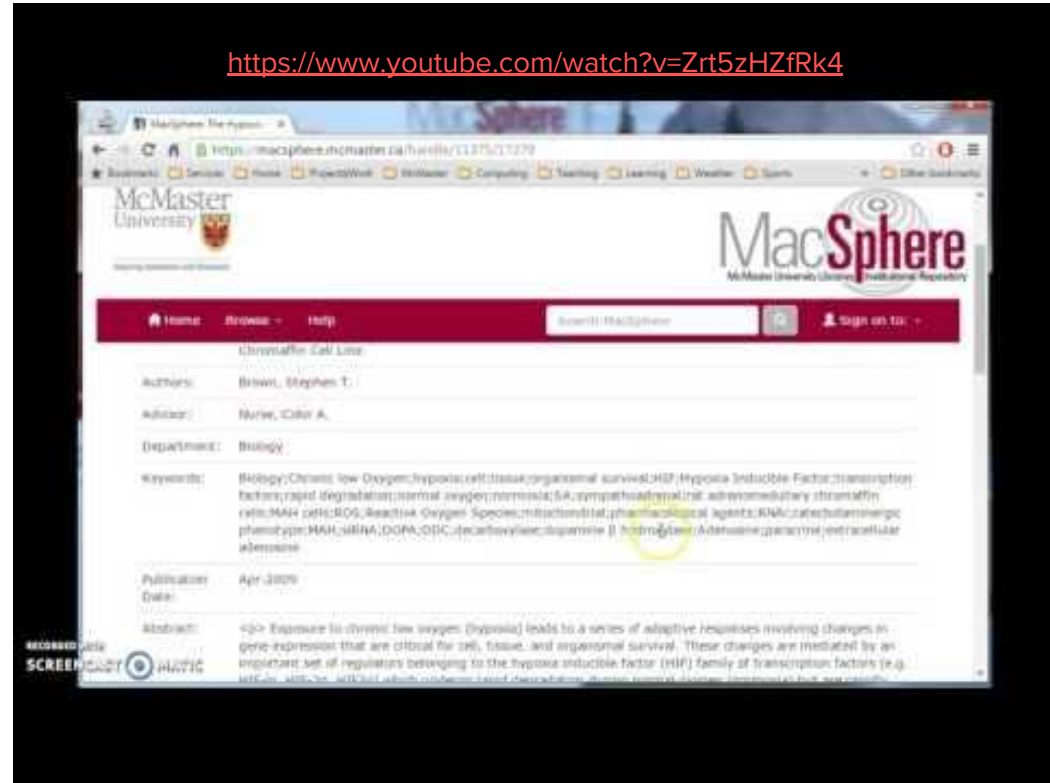
# macsphere.mcmaster.ca

McMaster's institutional repository (IR)

Preservation and sharing for scholarly output at McMaster

Accepts many formats and outputs (theses, journal articles, data, figures, slideshows, etc.)

<https://www.youtube.com/watch?v=Zrt5zHZfRk4>



# Open Data / Research Data Management

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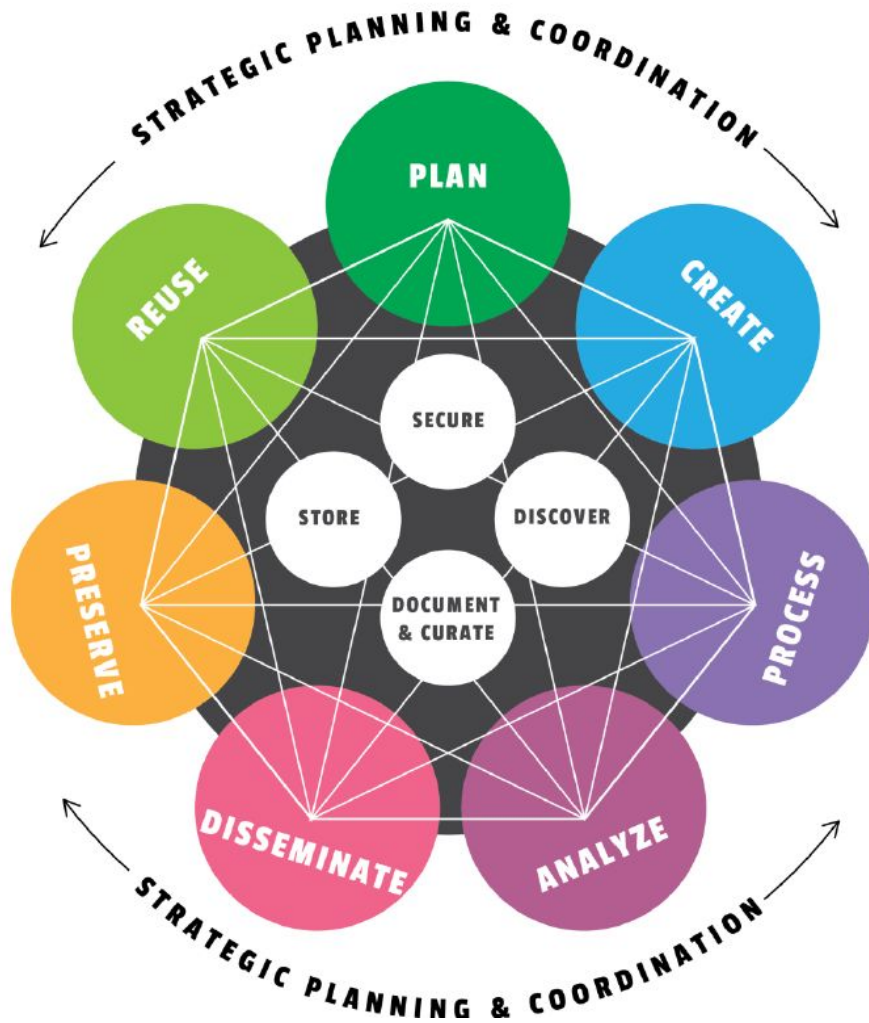


“Open data and content can be freely used, modified, and shared by anyone for any purpose”

- [Open Knowledge International](#)

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

# The research data lifecycle



Courtesy: Leadership Council for Digital Research Infrastructure (LCDRI) Data Management Position Paper, 2017-08-31

# Applying RDM best practices will benefit...

## **Researchers and their collaborators**

- ✧ Improves research efficiency and productivity
- ✧ Provides extra credit for research work
- ✧ Increases research impact
- ✧ May help to meet funding requirements

## **Research Communities**

- ✧ Accelerates discovery
- ✧ Enables validation and verification

## **Funders, governments and the public**

- ✧ Improves return on investment
- ✧ Increases research transparency
- ✧ Data as a public good



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.<sup>1</sup> 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.

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: **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 Institutions

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

## Research Communities

- developing & promoting standards
- fostering excellence
- selecting repositories

## Research Funders

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

# Draft Tri-Agency RDM Policy

- ✧ Tri-Agency draft data management policy — expected April, 2018
- ✧ 6-month consultation period; feedback will inform policy

Proposed policy — 3 possible requirements:

1. **Institutions:** Institutional Strategy
2. **Researchers:** Data Management Plans
3. **Researchers:** Data Deposit (*where appropriate*)

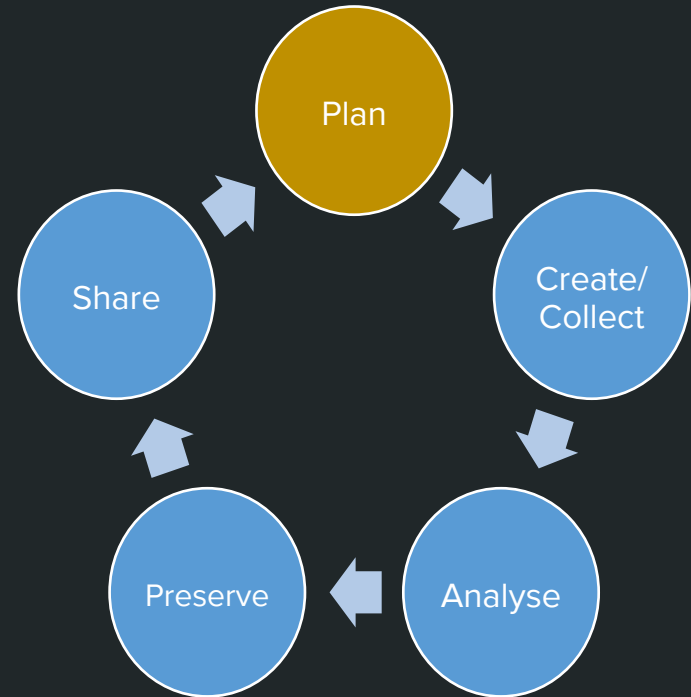
- ✧ Phased and incremental implementation

[Link to M. Lucas' slides — Portage Network Event](#) (30-Jan, 2018)

# Data Management Resources

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## I. Planning for RDM





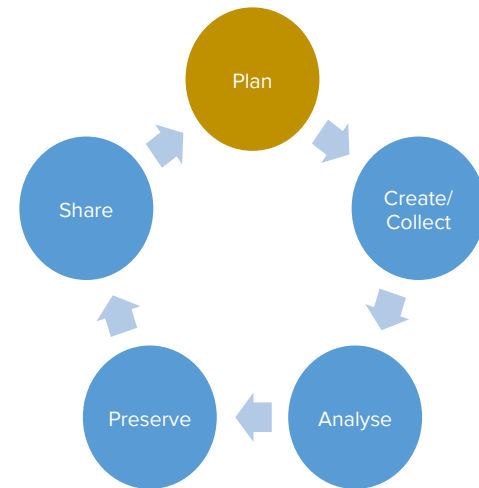
## ...it all starts with a (good) plan

A research **Data Management Plan (DMP)** should:

- ✧ Describe how you will manage data through all stages of your research
- ✧ Communicate a strategy for creating share-worthy data products

A **good** DMP will:

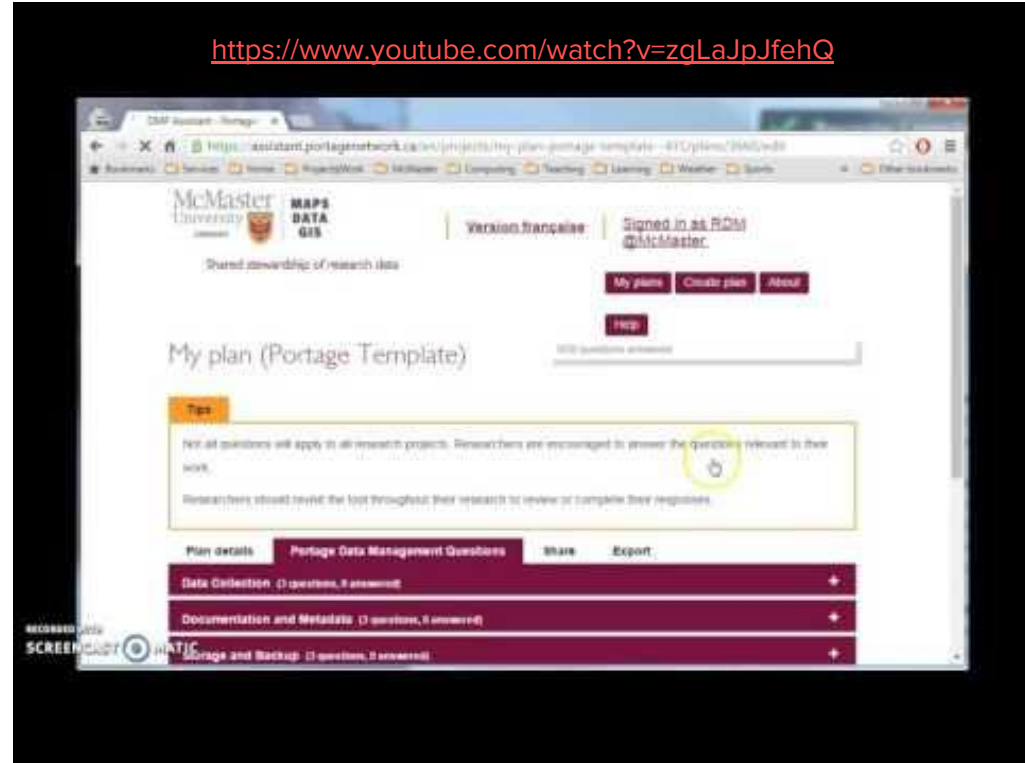
- ✧ Be completed at the time of study design
- ✧ Ensure compliance with policies / obligations
- ✧ Document and organize research activities
- ✧ Help identify support requirements
- ✧ *(Likely)* evolve with your study...



# 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>

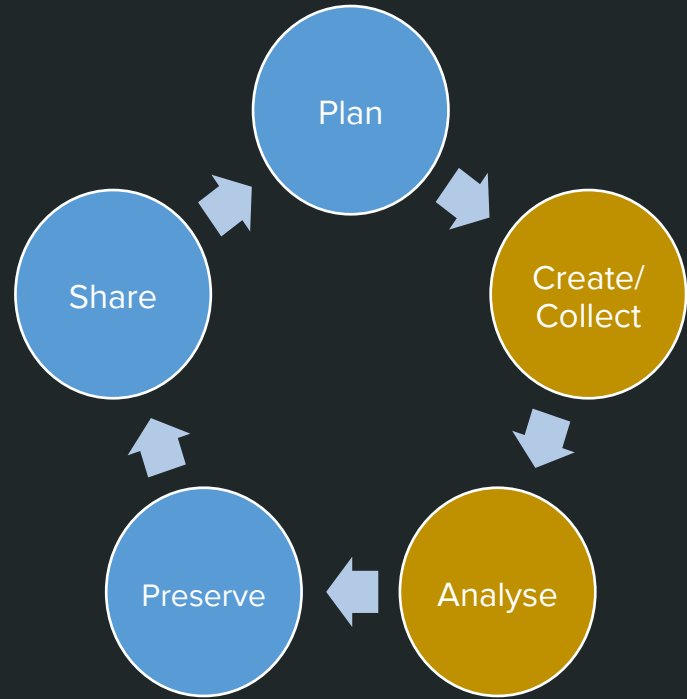


<https://assistant.portagenetwork.ca/>

# Data Management Resources

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## II. In-project data management



# Things to consider...

How will you manage digital data in your research?

- ✧ What types of data will you collect and how much?
- ✧ How will you **organize, secure, and backup** your data?
  - Are there ethical or commercial restrictions?

How will you provide access to collaborators?

- ✧ How will you **describe** your data so that others understand it?
- ✧ How will you control **access** to this data?
- ✧ How will you manage data versions?

3

2

1

3

copies of your data

2

1

3

copies of your data

2

copies are on-hand (easily accessible)

- 1 “**production**” (working) copy
- 1 “**production backup**” copy

1

3

copies of your data

2

copies are on-hand (easily accessible)

- 1 “**production**” (working) copy
- 1 “**production backup**” copy

1

copy is in another location (“off-site”),  
with a ***trusted*** service provide



“**Production**” copy → Where you work with the data

- PC, laptop, mobile device, etc.

“**Production backup**” copy → Easily accessible (+ versioning?) backup

- External hard drive with backup software
- MacDrive (seafile): <https://macdrive.mcmaster.ca>
- Dropbox, Google Drive, etc.

# Off-site “Archived” Backup

## Providers / Services:

- Campus / Consortium-hosted (RHPCS)
- Remote, Commercial
  - Backblaze, Iron Mountain, JustCloud, etc.

# Open Science Framework

<https://osf.io/>

- ✧ Free, open source web application
- ✧ Connects and supports the research workflow
- ✧ Integrates with existing services (e.g. Google Drive, Dropbox, etc.)
- ✧ Supports collaborative workflows
- ✧ Facilitates data publishing to selected data repositories



<https://youtu.be/2TV21gOzfhw>

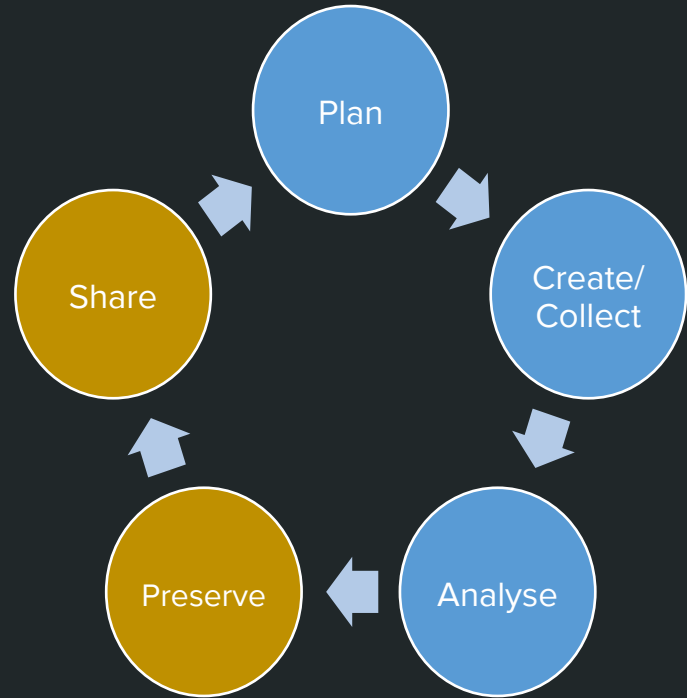
GETTING STARTED WITH THE  
OPEN SCIENCE FRAMEWORK  
(OSF)

Workshop demo: <https://osf.io/muq5f>

# Data Management Resources

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## III. Preserving and sharing data products



# Things to consider...

How will your data products be stored in the long-term?

- ✧ How to ensure that it remains *integral* and *secure*?
- ✧ Who will assume long-term *responsibility* for your data?

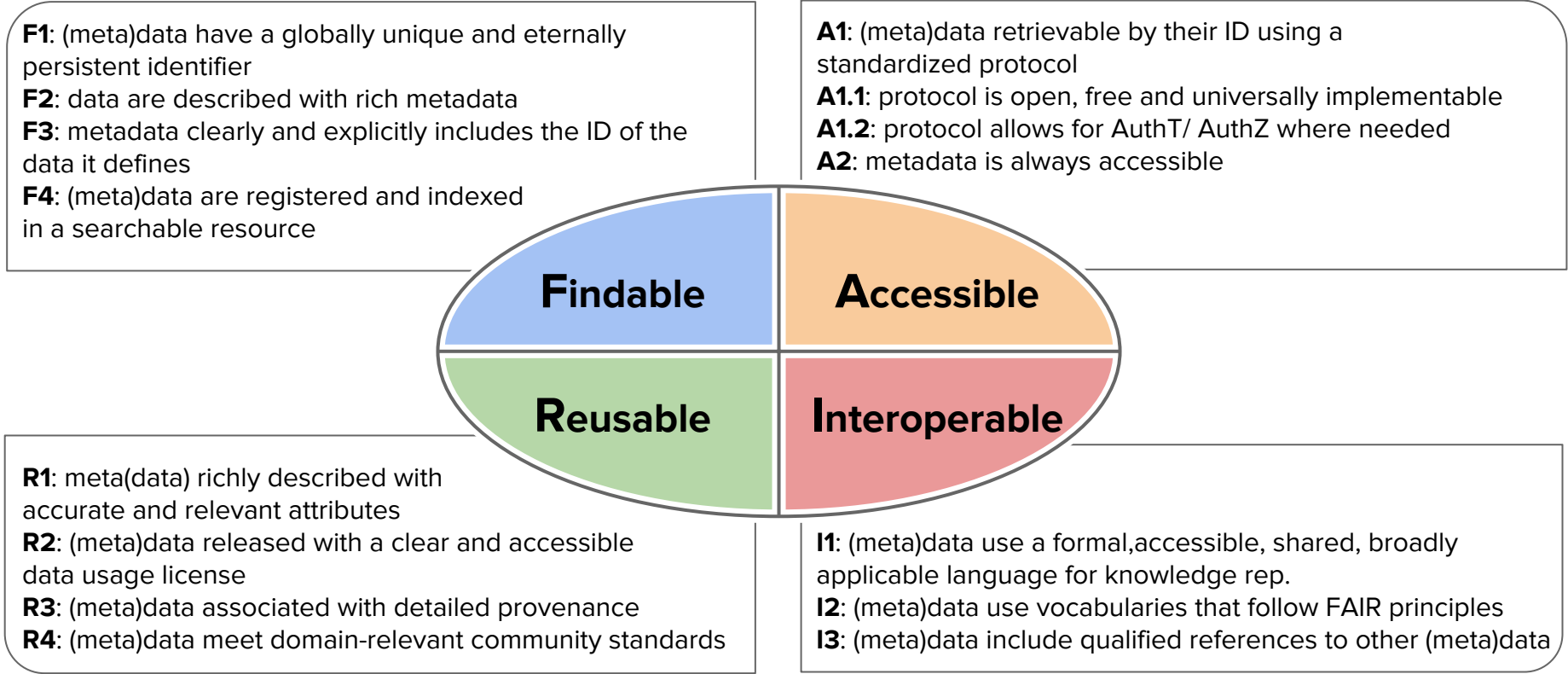
How will others access your data products?

- ✧ What data (if any) can/should be shared? Who should have access?
- ✧ How will you manage legal, commercial & ethical constraints?

How to maximize credit for sharing your data?

- ✧ In which repository should you deposit your data?
- ✧ How to ensure that your data is **FAIR**  
(*findable, accessible, interoperable and reusable*)?

# The FAIR Guiding Principles



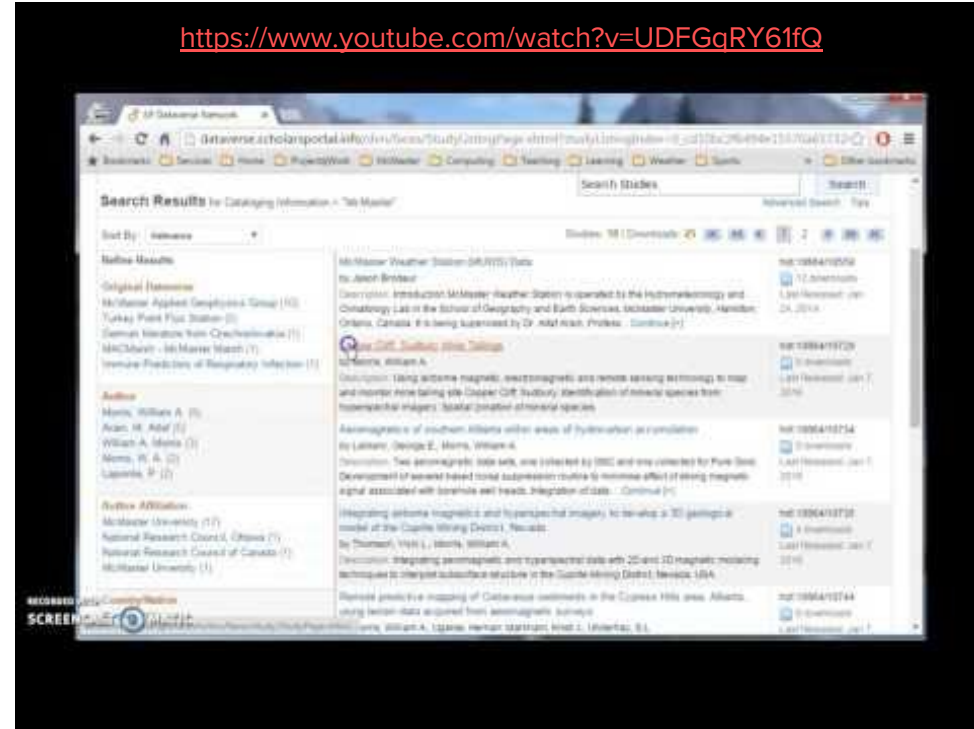
Wilkinson, M. D., Dumontier, M., Aalbersberg, I. J., Appleton, G., Axton, M., Baak, A., ... & Bouwman, J. (2016). The FAIR Guiding Principles for scientific data management and stewardship. *Scientific data*, 3. [doi:10.1038/sdata.2016.18](https://doi.org/10.1038/sdata.2016.18)

# 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=UDFGqRY6lfQ>



<http://dataverse.scholarsportal.info> or explore the demo site: <https://demodv.scholarsportal.info/>

[re3data.org](https://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 large sunburst chart representing a hierarchical classification of research subjects. The innermost ring contains major categories: Computing Science, Humanities, Social and Behavioral Sciences, Biology, Agriculture, Veterinary, Natural Sciences, and Engineering Science. The outer rings show increasingly specific sub-disciplines within each of these categories.



# ORCiD ID

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# What is an ORCID iD?

ORCID = Open Researcher and Contributor ID

- ✧ Unique identifier for use in scholarship
- ✧ Transparent system for linking researchers to:
  - activities & outputs;
  - individuals; and,
  - Organizations.
- ✧ National adoption underway in UK, AUS, NZ
- ✧ > 50 000 ORCID iDs registered from .ca domain



# What does an ORCID iD do?

- ✧ Disambiguates researchers
- ✧ Enables connection outside of the institution
- ✧ Simplifies/automates data entry processes
- ✧ Improves data quality and reuse (machine-actionable data)
- ✧ Improves online presence of researchers' products

# ORCID-CA

ORCID-CA is the ORCID Consortium in Canada, facilitated by ORCID and the Canadian Research Knowledge Network (CRKN)

## Benefits:

- ✧ Premium ORCID membership at lower cost
- ✧ Access to Premium Member API = potential to integrate with University systems and workflows
- ✧ Dedicates Member Services Coordinator

# Affiliating an ORCID iD with McMaster

Current: Add McMaster University in **Employment** Section

## Step 1

Sign up / Sign in at [orcid.org](https://orcid.org)

In Bio, select:  
+Add employment  
+Add manually

Search [ ] [ ] [ ] English [ ]

ORCID Connecting Research and Researchers

FOR RESEARCHERS FOR ORGANIZATIONS ABOUT HELP SIGN OUT

MY ORCID RECORD INBOX ACCOUNT SETTINGS DEVELOPER TOOLS LEARN MORE

50,275 ORCID iDs and counting. See more...

Jason Brodeur

ORCID ID [ ] sandbox.orcid.org/0000-0001-8271-9163 [ ] View public version [ ]

Display your iD on other sites [ ] Public record print view [ ] Get a QR Code for your iD [ ] Also known as [ ]

Biography [ ] [ ] [ ] [ ]

Education (0) [ ] + Add education [ ] Sort [ ]

You haven't added any education, add some now

Employment (0) [ ] + Add employment [ ] Sort [ ]

+ Add manually

You haven't added any employment, add some now

Funding (0) [ ] + Add funding [ ] Sort [ ]

You haven't added any funding, add some now

Works (0) [ ] + Add works [ ] Sort [ ]

You haven't added any works, add some now

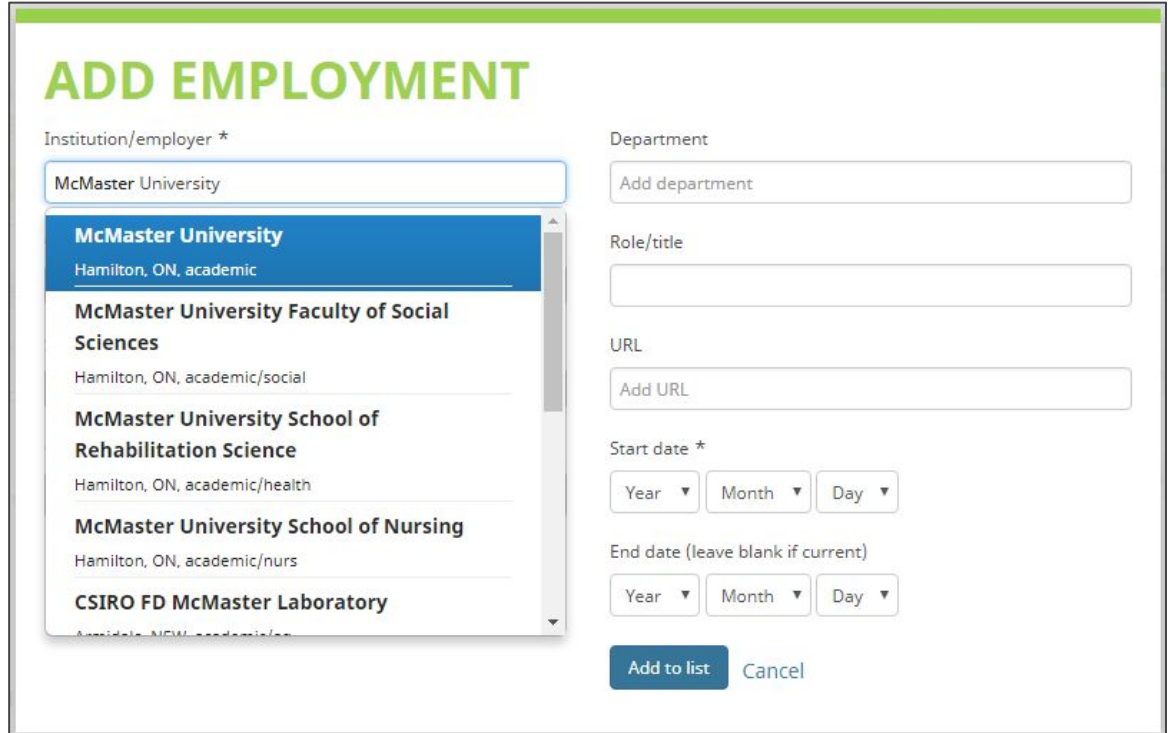
# Affiliating an ORCID iD with McMaster

Current: Add McMaster University in ***Employment*** Section

## Step 2

Enter 'McMaster' as  
Institution/employer

Select 'McMaster  
University' (or sub-unit)  
from drop-down list



**ADD EMPLOYMENT**

Institution/employer \*

McMaster University

- McMaster University**  
Hamilton, ON, academic
- McMaster University Faculty of Social Sciences  
Hamilton, ON, academic/social
- McMaster University School of Rehabilitation Science  
Hamilton, ON, academic/health
- McMaster University School of Nursing  
Hamilton, ON, academic/nurs
- CSIRO FD McMaster Laboratory  
Armidale, NSW, academic/so

Department

Add department

Role/title

URL

Add URL

Start date \*

Year Month Day

End date (leave blank if current)

Year Month Day

Add to list Cancel

# Affiliating an ORCID iD with McMaster

Current: Add McMaster University in **Employment** Section

## Step 3

Add remaining  
position information  
(mostly optional)

Click “Add to list”

### ADD EMPLOYMENT

Institution/employer Remove  
McMaster University  
Hamilton (ON), academic

Department  
McMaster University Library

Display Institution/employer \*  
McMaster University

Role/title  
Manager, Maps, Data, GIS

Display city \*  
Hamilton

URL  
Add URL

Display state/region  
ON

Start date \*  
Year ▼ Month ▼ Day ▼

Display country \*  
Canada ▼

End date (leave blank if current)  
Year ▼ Month ▼ Day ▼

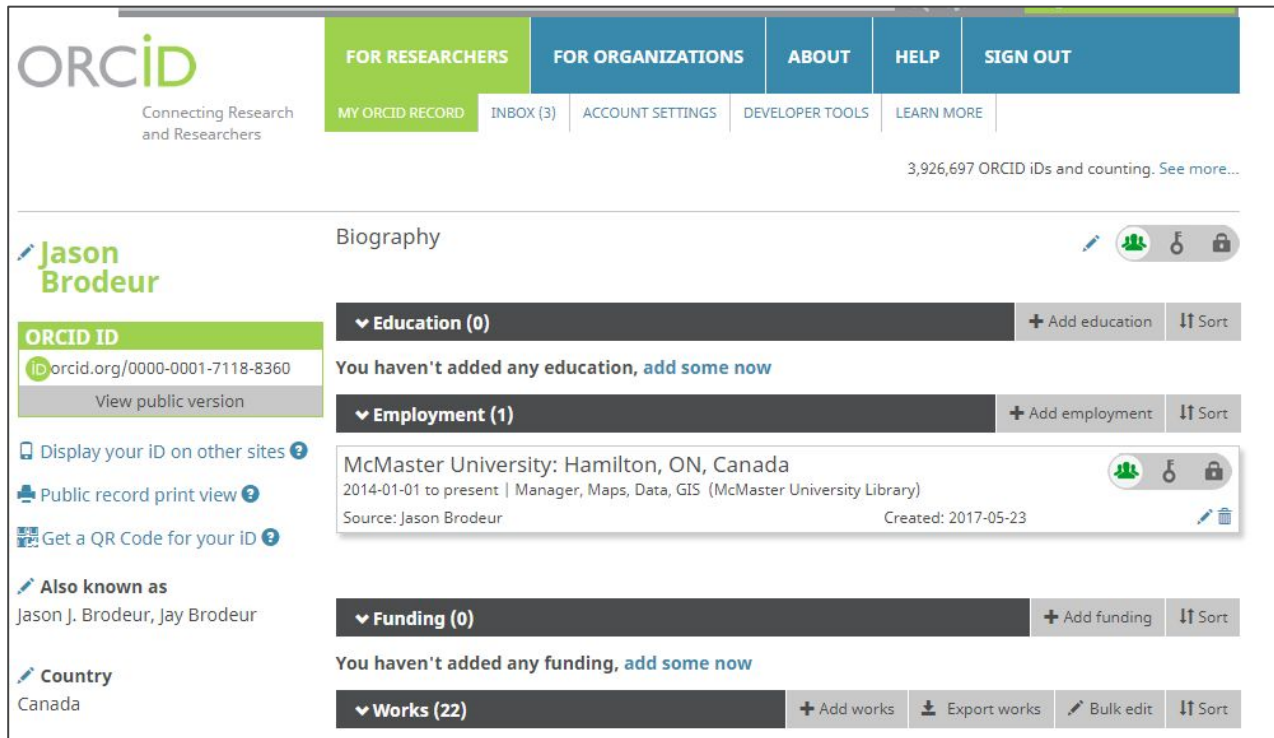
**Add to list** Cancel

# Affiliating an ORCID iD with McMaster

Current: Add McMaster University in **Employment** Section

Profile will now  
show employment

Affiliation  
established



**ORCID**  
Connecting Research and Researchers

FOR RESEARCHERS FOR ORGANIZATIONS ABOUT HELP SIGN OUT

MY ORCID RECORD INBOX (3) ACCOUNT SETTINGS DEVELOPER TOOLS LEARN MORE

3,926,697 ORCID iDs and counting. See more...

**Jason Brodeur**

**ORCID ID**  
id.orcid.org/0000-0001-7118-8360  
View public version

Display your iD on other sites  
Public record print view  
Get a QR Code for your iD

**Also known as**  
Jason J. Brodeur, Jay Brodeur

**Country**  
Canada

**Biography**

**Education (0)** + Add education | Sort

You haven't added any education, add some now

**Employment (1)** + Add employment | Sort

McMaster University: Hamilton, ON, Canada  
2014-01-01 to present | Manager, Maps, Data, GIS (McMaster University Library)  
Source: Jason Brodeur Created: 2017-05-23

**Funding (0)** + Add funding | Sort

You haven't added any funding, add some now

**Works (22)** + Add works | Export works | Bulk edit | Sort



# Affiliating an ORCID iD with McMaster

Coming Soon:

- ✧ Affiliation can be initiated by the institution through ORCID-CA membership API
- ✧ Researchers will be prompted to accept/reject affiliation with McMaster

# More Information on ORCID and ORCID-CA

## **ORCID:**

Learn more; register at: <https://orcid.org/>

## **ORCID-CA:**

Introductory Webinar: <https://attendee.gotowebinar.com/recording/3169306365980109057>

Webinar slides: <https://goo.gl/Oi70kY>

Joint Statement of Principles: <https://goo.gl/2vb5p0>

## **More information on researcher profiles:**

<http://hsl.mcmaster.libguides.com/impact/profiles>

# Where to find more information

## Open Access & Open Educational Resources:

- ✧ [openaccess.mcmaster.ca](https://openaccess.mcmaster.ca)
- ✧ [macsphere.mcmaster.ca](https://macsphere.mcmaster.ca)
- ✧ Olga Perkovic ([perkovi@mcmaster.ca](mailto:perkovi@mcmaster.ca)):  
Research and Advanced Studies Librarian

## Open Data & Research Data Management

- ✧ [portagenetwork.ca](https://portagenetwork.ca)
- ✧ [library.mcmaster.ca/rdm](https://library.mcmaster.ca/rdm)
- ✧ RDM@Mcmaster ([rdmgmt@mcmaster.ca](mailto:rdmgmt@mcmaster.ca))

# Thank You.

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Jay Brodeur, [brodeujj@mcmaster.ca](mailto:brodeujj@mcmaster.ca)

**Research data** are contents that are used as primary sources to support research, scholarship, artistic activity or research-creation, and that are used as evidence in the research process and commonly accepted in the research community as necessary to validate research findings and results.

Canadian Tri-Agency

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

# Research Data Management (**RDM**) 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

