McMaster University

Family Medicine

David Braley Primary Care Research Collaborative

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Planning for Research Data Management: An Introduction

Watch a recording of the session here

Isaac Pratt

Jay Brodeur

December 1st, 2021

Michael G. DeGroote SCHOOL OF MEDICINE

McMaster University | Library

Managing your research data

Introduction to the DMP Assistant

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McMaster University Library/RHPCS

Family Medicine Skill Builder Series | December 1, 2020

Overview

- A brief Research Data Management primer (5 mins)
- Introduction to data management plans (DMPs) (10 mins)
- Portage DMP Assistant (35 mins)
  - Demo (5 mins)
  - Discussion & Questions (30 mins)
- Where to go for help (5 mins)

Learning objectives

By the end of this session you should be able to:

- ***Describe*** the basic activities and considerations of research data management (RDM)
- ***Explain*** the purpose and value of a Data Management Plan (DMP)
- ***Use*** the Portage DMP Assistant to draft a DMP
- ***Apply*** your knowledge and experience to ***create*** a DMP **and/or**
- ***Identify*** additional resources and support to help you complete one

Take a moment to think about the following…

- If you were asked to share your data with another researcher would they be able to make sense of your work?
- If you needed to locate your data files from 5 years ago, how easy would they be to find and use?

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Applying RDM best practices will benefit…

Researchers and their collaborators

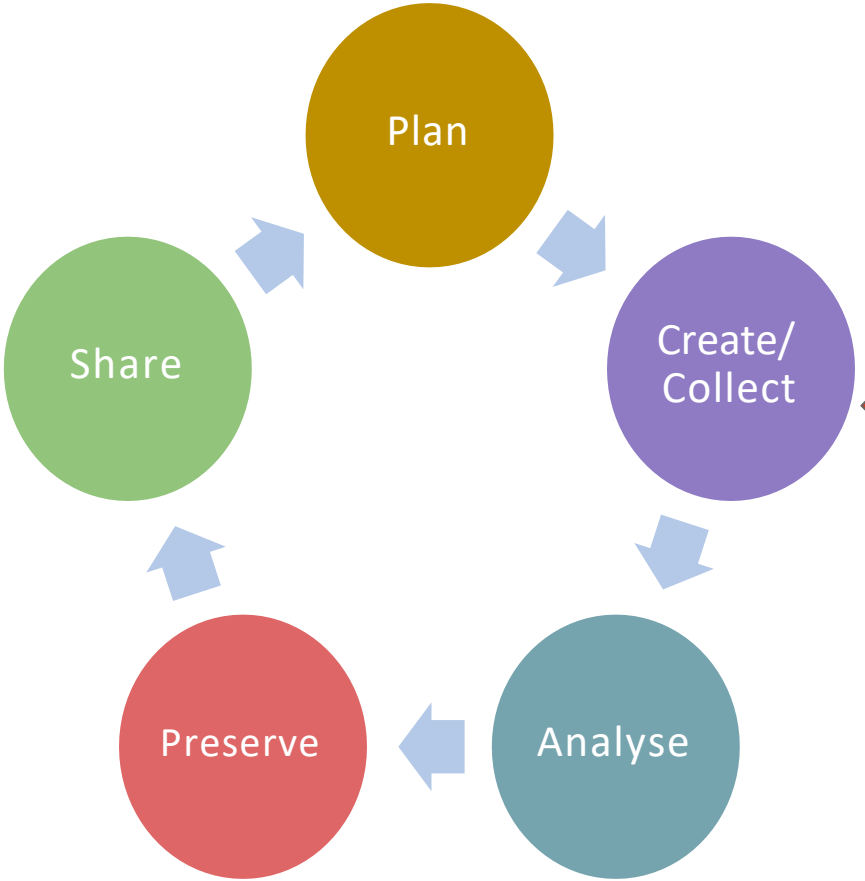
- ✧ Improves research efficiency and productivity
- ✧ Provides extra credit for research work
- ✧ Increases research impact
- ✧ May help to meet funding requirements

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



Research Data Management

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

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

Data management plans

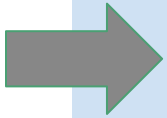
Provisioning storage, backup

Hardware, software, systems

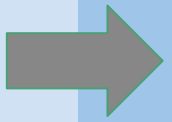
Ethics, IP, commercial reqs

Personnel, support, training

Data in Planning



Data in Motion



Data at Rest

Data management plans

Provisioning storage, backup

Hardware, software, systems

Ethics, IP, commercial reqs

Personnel, support, training

Collection & organization

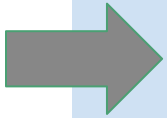
Storage, backup, recovery

Documentation & metadata

Access & Collaboration

Analysis

Data in Planning



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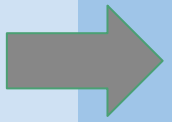

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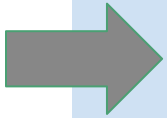

Collection & organization

Storage, backup, recovery

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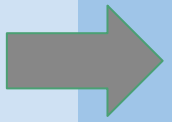

Data/code archiving

Curation, review, revision

Data/code preservation

PIDs and linking

Data/code licensing, sharing

Data at Rest

Data management plans

Provisioning storage, backup

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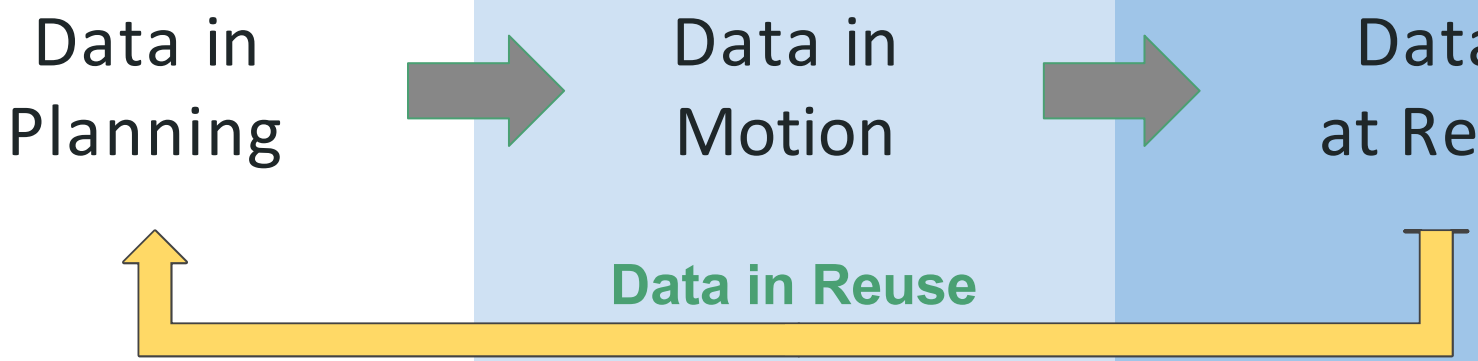


Where can I learn more and find help?

- Library Research Data Management website:

  library.mcmaster.ca/services/rdm

RDM
@McMaster

- Email us for a research data management consultation

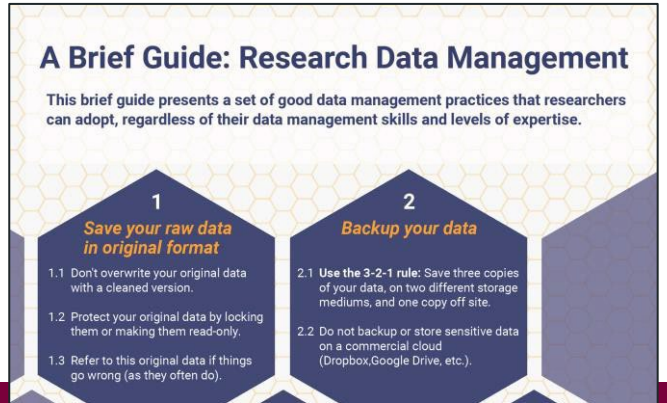
  rdmgmt@mcmaster.ca

Where can I learn more and find help?

- Portage Network https://portagenetwork.ca/
- A Canadian network of experts in Data Management working to build capacity and develop services and infrastructure in Canada
  - Portage's Brief Guide to Research Data Management Guide

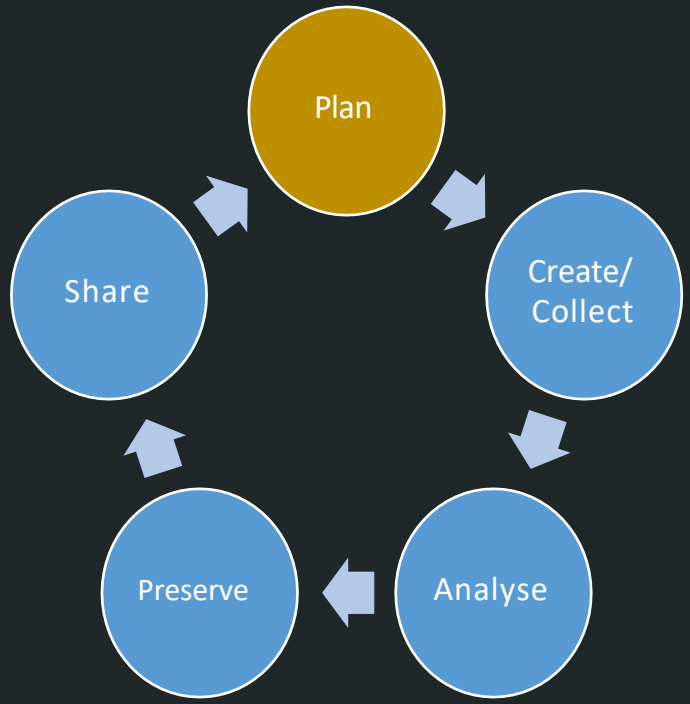
portage

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



The RDM Landscape

- Tri-Agency requirements
- Resources

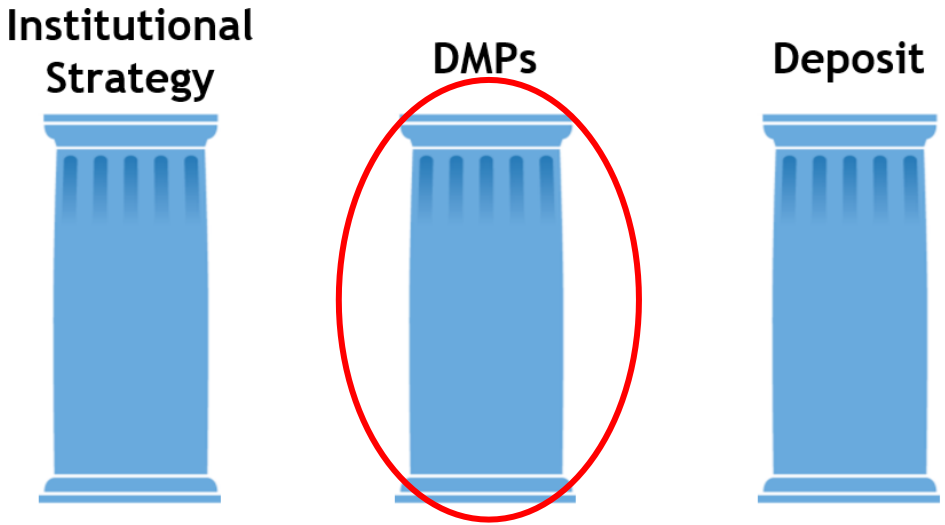


Tri-Agency Statement of Principles on Digital Data Management
http://www.science.gc.ca/default.asp?lang=En&n=83F7624E-1

Draft Tri-Agency RDM Policy

Tri-Agency draft data management policy[1] — June, 2018

- Will apply to grant recipients and institutions administering tri-agency funds.



Phased and incremental implementation

[1] http://www.science.gc.ca/eic/site/063.nsf/eng/h_97610.html [shortened: https://bit.ly/2OsJB8w]

Existing Tri-Agency policy

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CIHR:

- Some publication-related research data including bioinformatics, atomic, and molecular coordinate data must be deposited into a public database immediately upon publication of research results.
- Data sets must be retained for a minimum of 5 years after the end of a grant.

SSHRC:

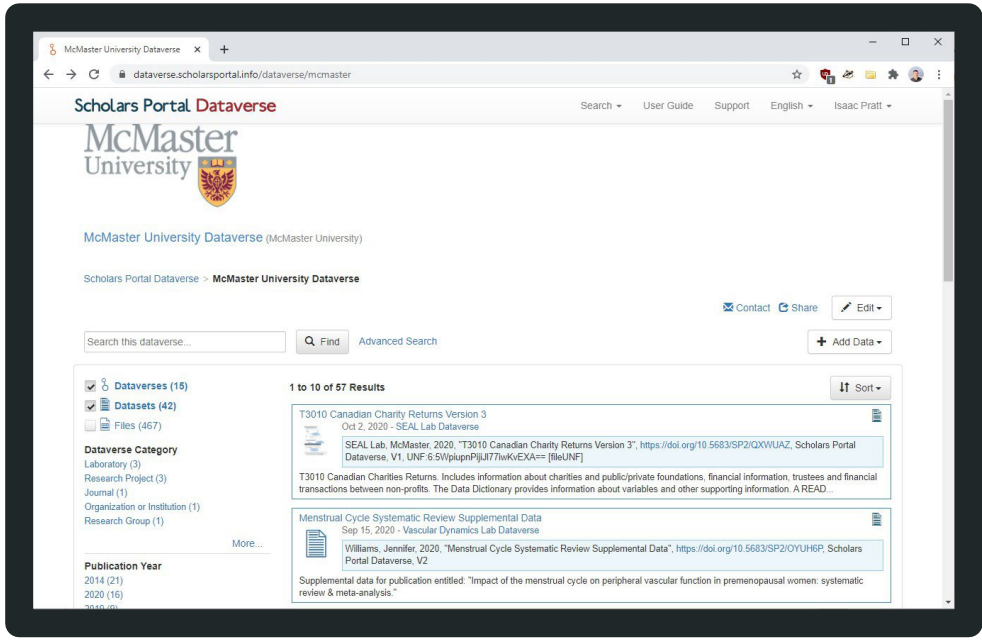
- All research data collected with the use of SSHRC funds must be preserved and made available for use by others within a reasonable period of time (2 years after project completion).
- researchers have an obligation to preserve and safeguard the data.

http://www.science.gc.ca/eic/site/063.nsf/eng/h_F6765465.html
https://www.sshrc-crsh.gc.ca/about-au_sujet/policies-politiques/statements-enonces/edata-donnees_electroniques-eng.aspx

Scholars Portal Dataverse

- A data repository for researchers at Ontario's universities -- **free** and **open** for all researchers in Canada
- An online platform to share, preserve, cite, explore and analyze research data.
- Allows researchers to control how they share their data.
- Locally administered at McMaster with servers in Canada.

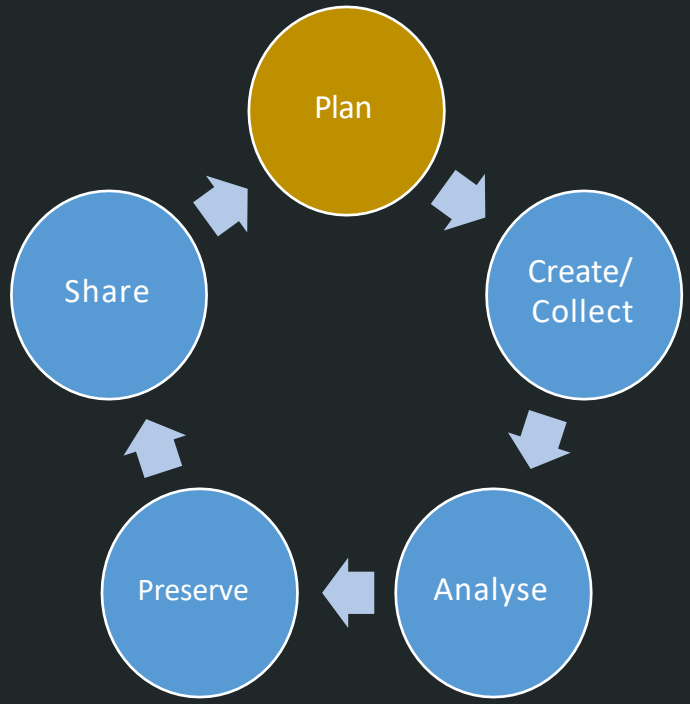
https://www.youtube.com/watch?v=UDFGqRY61fQ



http://dataverse.scholarsportal.info

RDM Planning

- Considerations
- DMP Assistant



Data Management Plans

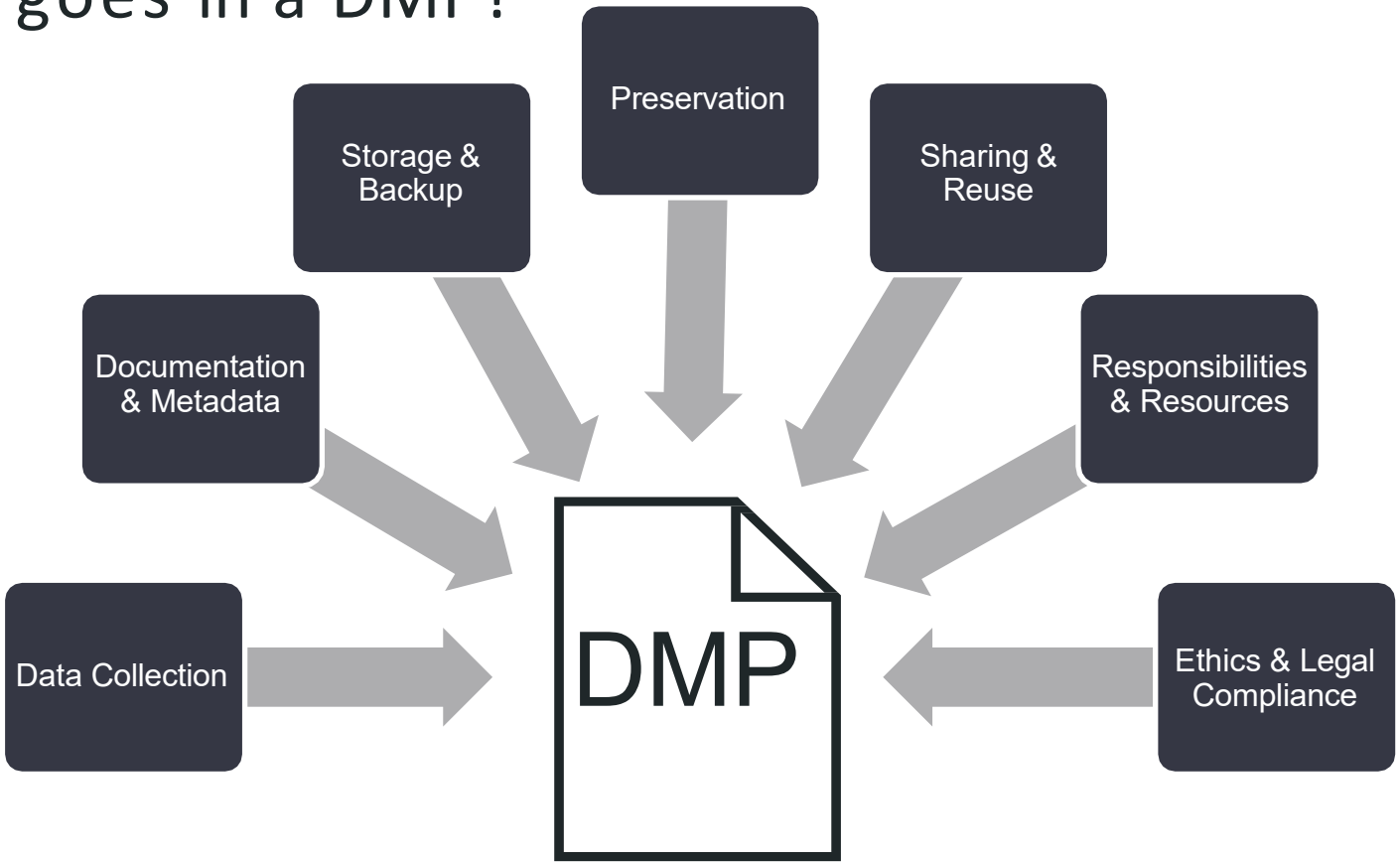
DMPs ***are living documents*** that should outline:

- how data will be collected, documented, formatted, protected & preserved;
- how existing datasets will be used and what new data will be created
- whether and how data will be shared; and where data will be deposited.
- roles & responsibilities for managing, including succession plans
- ethical, legal and commercial constraints of the data
- methodological considerations that support or preclude data sharing

Grant applicants are encouraged to use standardized tools to develop their DMPs, such as the **Portage Network's DMP Assistant**[1]

[1] https://assistant.portagenetwork.ca

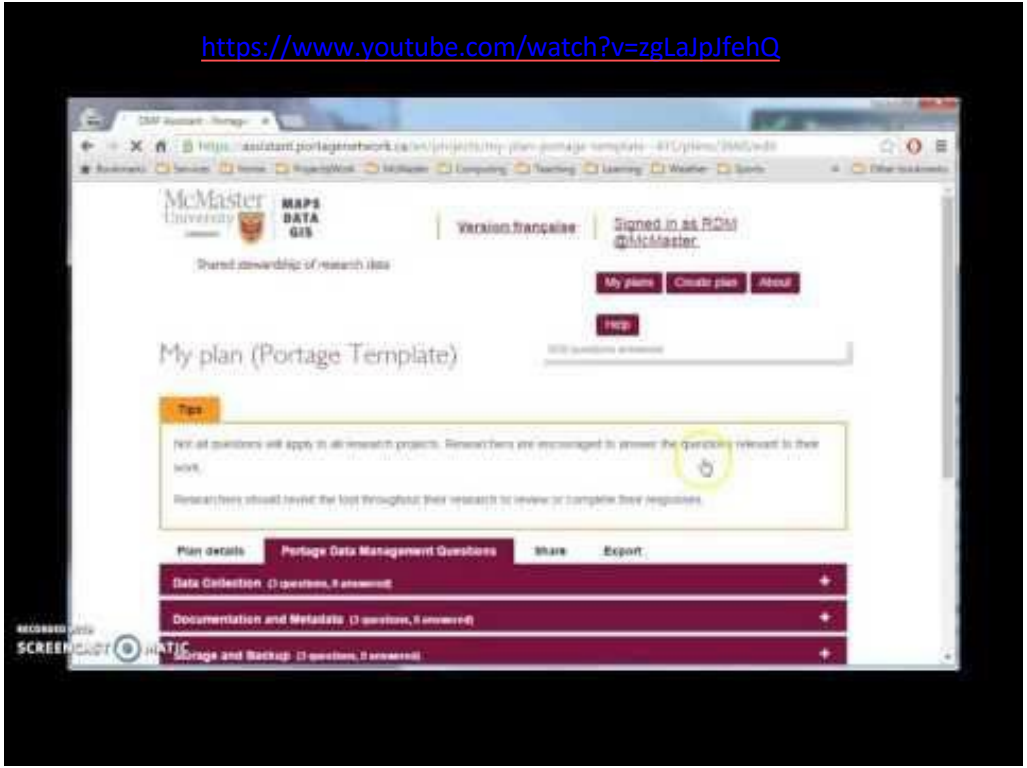
What goes in a DMP?



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/

Activity - Develop a DMP (~35 minutes)

1. Navigate to assistant.portagenetwork.ca
    - Create an account & login (check email for verification)
    - Or login with user: **mcm.rdm.demo@gmail.com** |pass: **demopass**
    - Or download list of questions at: u.mcmaster.ca/portage-dmp-template
2. Open our session's padlet: u.mcmaster.ca/dmp-padlet
3. Create a plan for a current, past, upcoming, or prospective research project
    - Note points of interest, difficult or unanswered questions, or other thoughts on the padlet

Reflections and Discussion

What are your reflections on:

- Which sections / questions were particularly challenging? How so?
- What kind of support or resources would help you complete this plan?
- The overall experience?
- The interface and its content?

Thank You.

For more information:

RDM @McMaster

library.mcmaster.ca/services/rdm
rdmgmt@mcmaster.ca

McMaster Library's RDM webpage and primary contact

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

portagenetwork.ca/

Portage Network page: Access to RDM information and DMP Assistant