Data Management Planning with DMP Assistant

MacDATA Workshop: February 26, 2016

V. Jadon, J. Brodeur
McMaster University Library
Overview

1. Introduction to Research Data Management (RDM) [20 mins]
   a. An RDM primer - The Canadian context
   b. RDM activities
   c. Introduction to data management planning

2. Exercise: Planning for research data management [40 mins]

3. Discussion and wrap-up [20 mins]
Workshop Objectives

By the end of this workshop, attendees should be able to:

1. Describe research data management (RDM) and summarize basic RDM activities,

2. Create a data management plan (DMP) for a current or future research project; and,

3. Identify areas where RDM support is needed, and locate appropriate resources.
If you shared your data another researcher or collaborator, would they be able to:

a. Interpret and understand it?

b. Use it in new analyses?

Would someone (including you) be able to find, interpret and use your data 20 years from now?
Research Data Management Primer: RDM in the Canadian Context
Research Data Management 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.
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
Canadian Government & Funding Agencies

- Canada’s Action Plan on Open Government (2014-2016)
- Tri-Agency Statement of Principles on Digital Data Management (Jul-2015)
Tri-Agency Statement of Principles on Digital Data Management

**Expectations:**

- **Data management planning**
  - Adherence to standards
  - Collection and storage
  - Metadata
  - Preservation, Retention and Sharing
  - Timeliness
  - Efficient and cost-effective
Publishers & Scientific Organizations

✧ Data sharing policies

✧ Recommended data repositories

✧ Publisher-supported data repositories
Support Organizations and Communities

✧ Standards of practice
✧ Training, expertise and information
✧ Tools and resources
RDM in the Data Life Cycle: Common Challenges
RDM in the Data Lifecycle

- Plan
- Create/Collect
- Share
- Preserve
- Analyse
Planning

What are the stipulations in institutional, funder or publisher data policies to be followed?

What resources do you require to manage your data?

Who is responsible for data management and long-term stewardship?
Creating and Collecting

How much data will you collect or create? Where will you store it and back it up?

Is your created or collected data in a suitable format for sharing and long-term preservation?

What documentation and metadata should accompany the data?
How will you manage any ethical or privacy issues before analysing the data?

How will you securely store (potentially large and cleaned) data pre- and post-analysis?

Who will have access to this data for analysis?
Preserving

What data should be retained and preserved?

Where will you preserve your data? Who will have access to this preserved data?

For how long you are going to preserve your research data?
Sharing

Plan

Create/Collect

Preserve

Analyse

Share

What data will you make publicly available for research and reuse?

What resources are in place for sharing your data among multiple sites?

How will you manage restrictions e.g. license, privacy issues etc. associated with your data before sharing?
Research Data Management Planning
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 and share-ready data products
An effective 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...
DMPs: The International Context

UK:
✧ AHRC, BBSRC, CRUK, ESRC, MRC, NERC, STFC, Wellcome Trust

US:
✧ NIH*, NSF,

EU
✧ Portugal, EC-Horizon 2020

DMPs: The Canadian Context

From the *Statement of Principles (2015)*:

“Data management planning is necessary at all stages of the research project lifecycle, from design and inception to completion.”
A web-based, bilingual data management planning tool made available to all researchers in Canada through the Portage network

A guide for best practices in data stewardship:

Available at: [https://portagenetwork.ca](https://portagenetwork.ca) | [https://reseauportage.ca](https://reseauportage.ca)
Activity - Develop a DMP (~40 minutes)

Using the **CARL Portage DMP Assistant:**

✧ Create an account
✧ Develop a DMP for a current, upcoming or prospective research project
✧ Browse through the DMP questions
✧ Complete the answerable questions in rough form (or internally)
✧ Note any confusing, problematic or difficult questions
Navigate to the DMP Assistant:
https://portagenetwork.ca/

Sign in with your email / password

Click “Create plan”

Set organization to “McMaster University”

Select the “Portage” template
Enter relevant personal, organizational and study information

Expand boxes to complete questions for each section

Provide answers in the left-hand box
Use right-hand box for guidance/comments

https://portagenetwork.ca/
Reflections and Discussion

What are you reflections on:

✧ The overall experience?
✧ The interface and its content?

What sections / questions were particularly challenging? How so?

What kind of support or resources would help you complete this plan?
What comes next?

✧ Institutional customization of DMP Assistant
✧ Amalgamation of DMP tools DMPOnline/Assistant & DMPTool
✧ Integration with REBs?
✧ Funding agency guidelines / policies / mandates
DMP guidance

Canada
✧ Updated Portage Network website (*Coming soon*): https://portagenetwork.ca
✧ RDM@McMaster: http://library.mcmaster.ca/rdm/planning/dmp
✧ UBC Libraries: http://researchdata.library.ubc.ca/plan/

International
✧ CDL DMPTool [US]: https://dmptool.org/community_resources
✧ DCC [UK]: http://www.dcc.ac.uk/resources/data-management-plans
DMP support

Portage Network
*Coming soon*
https://portagenetwork.ca

RDM@McMaster
http://library.mcmaster.ca/rdm
rdmgmt@mcmaster.ca
Thank You.

Check out http://library.mcmaster.ca/rdm for more information
Contact us at rdmgmt@mcmaster.ca