Research Data Management Planning: An introduction

Presenters:
Erin MacPherson, MLIS, P.Ag
Sarah Stevenson, MLIS
Today’s session

• What is research data and why manage it?
• Elements of managing data
• Using the DMP Assistant to create a data management plan
• RDM Game (now with prizes!)
What is research data?

“...defined as the factual records (e.g. microarray, numerical and textual records, images and sounds, etc.) used as primary sources for research, and that are commonly accepted in the research community as necessary to validate research findings.”

(Canadian Association of Research Libraries (n.d.))
Content vs. format

- Scanned documents
  - Such as lab notebooks
- Documents (text, MS Word), spreadsheets
  - Can include online surveys, transcripts, etc
  - Field notebooks
- Digital media
  - Audio, video and other recording files
- Scanned photos and digital images
- Transcribed test responses
- Database contents
- Digital models, algorithms, scripts
- Contents of an application (input, output, logfiles for analysis software, simulation software)
- Documented methodologies and workflows
- Records of standard operating procedures and protocols

(University of Bristol, 2012)
Why manage data?
https://youtu.be/nNBiCcBlwRA
• To be ORGANIZED (finding it, keep track of versions, making accessing and using data easier)

• SHARE it. (data re-use by you or by others) – allows others to benefit from your data, increase your citation rate, reduce duplication.

• SAFE-KEEPING Safe-keeping (protect from theft, loss, device failure, natural disaster)

• Prepare for CHANGE (technological, administrative, personnel)

• Grant, journal or Research Ethics Board REQUIREMENTS

Why manage research data?
Some journals may require you to share your data as a condition of publication. Often, data sharing policies can be found in the "Instructions for Authors" or "Author Guidelines."

Some journals may provide a list of repositories, but if not, contact us for assistance.

Some examples of data-sharing policies are below:

- **Nature:** [Availability of data, material and methods](#)
- **Wiley:** [Wiley's Data Sharing Service](#)
In June 2016, NSERC, SSHRC and CIHR adopted the *Tri-Agency Statement of Principles on Digital Data Management*. The statement covers many things, including:

- digital research data management and expectations,
- responsibilities of researchers, research communities, institutions and funders in meeting these expectations.

As publicly-funded organizations, they advocate for access to research results, including research data.

- Why?
  - Avoid duplication
  - Advance knowledge
  - Maximize research benefits to Canadians
  - Promote Canadian researchers and their accomplishments (Government of Canada, 2015).
Where to start: Data Management Plans

• We are going to focus on the planning aspect of Data Management.
• This is an on-going, evaluative task

• Elements of Data Management Plan:
  1. Data Collection
  2. Documentation & Metadata (“data about data”)
  3. Storage & backup
  4. Preservation
  5. Sharing & Reuse
  6. Responsibilities & Resources
  7. Ethics & Legal compliance
The Portage Network:
https://portagenetwork.ca/ | https://reseauportage.ca

Tool:
DMP Assistant (Assistant PGD in French): an all-purpose tool for preparing data management plans (DMPs).

• takes researchers step-by-step through a number of key questions about data management.

• Guidance and examples are provided.

• Not all questions will apply to all research projects. Researchers are encouraged to answer the questions relevant to their work.

• Researchers should revisit the tool throughout their research to review or complete their responses.
DMP Assistant is a bilingual tool for preparing data management plans (DMPs). The tool follows best practices in data stewardship and walks researchers step-by-step through key questions about data management.

**Step 1** Sign up with DMP Assistant.

**Step 2** Sign in and select a template under Organizations. The Portage template is the default.

**Step 3** Answer the questions that are relevant to your work. Guidance and examples are provided.

**Step 4** Revisit the tool throughout your research to review or revise your answers.

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**Sign in**

If you have an existing account with DMP Assistant or previous version of DMP Builder.

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**Sign up**

New to DMP Assistant? Sign up today.

Please note that we are currently working on single sign-in authentication. For now, please create a new DMP Assistant account. You will have the option to link your DMP Assistant account to your campus ID when that feature becomes available.
Resources for YOU

• Data management @ Dalhousie University Libraries
  • [http://libraries.dal.ca/locations_services/services/data_management.html](http://libraries.dal.ca/locations_services/services/data_management.html)
  • Email: data.management@dal.ca
  • RDM LibGuide: [http://dal.ca.libguides.com/rdm](http://dal.ca.libguides.com/rdm)
  • DMP Assistant workshops on your campus – in planning

• Portage network resources

• Online training
  • [New England Collaborative Data Management Curriculum](http://nelc.org/curriculum)
  • University of Edinburgh [Research Data MANTRA](http://data.mantra.ed.ac.uk)
Any questions?
References


• Slide 1: Portage logo: https://portagenetwork.ca/

• Slide 5: Floppy disks: https://upload.wikimedia.org/wikipedia/commons/a/aa/Floppy_disk_2009_G1.jpg
USB: https://upload.wikimedia.org/wikipedia/commons/8/86/SanDisk_Cruzer_Micro.png
Cassette tapes: https://upload.wikimedia.org/wikipedia/commons/thumb/7/72/CassetteTypes1.jpg/220px-CassetteTypes1.jpg
Digital audio recorder: http://ecx.images-amazon.com/images/I/717Fx7kGMOL._SL1300_.jpg
Photosynthetic data from oak seedlings: http://www.cdn.sciencebuddies.org/Files/2064/6/labnotebook_data_combined.png

• Slide 7: screenshot of Nature policy on Availability of data, material and methods: http://www.nature.com/authors/policies/availability.html


