Tri-Agency Research Data Management Policy & Implications for Ethics Boards

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Tri-Agency RDM Policy: Background & Summary

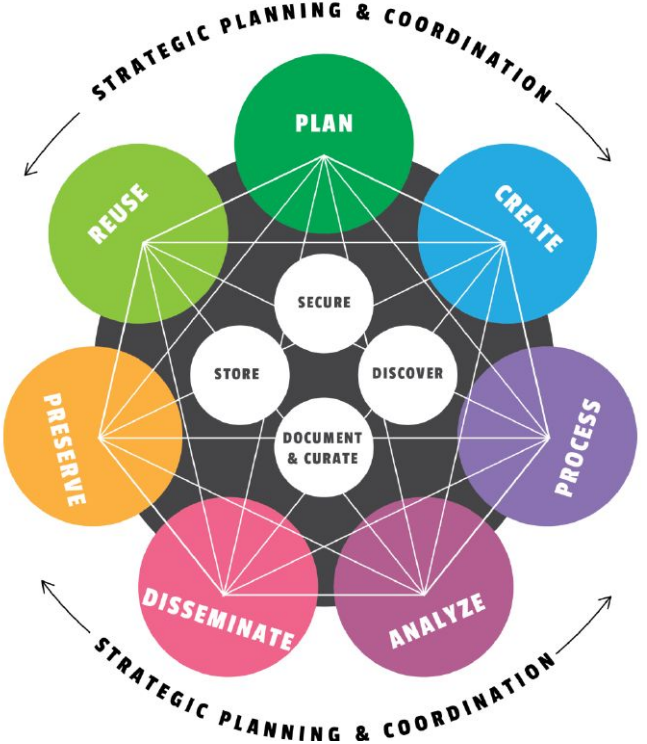
Research Data Management

Research data are:

- used as primary sources to support technical or scientific enquiry, research, scholarship, or artistic activity,
- used as evidence in the research process and/or are commonly accepted in the research community as necessary to validate research findings and results

Research data management (RDM):

- includes the collection, storage, preservation and, where appropriate, access to data produced from a given investigation.
- should be practiced over the entire lifecycle of the data



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

Tri-Agency Statement of Principles on Digital Data Management[1] (2015 / 2016)

[1] 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

[1] http://www.science.gc.ca/default.asp?lang=En&n=83F7624E-1

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

[1] http://www.science.gc.ca/default.asp?lang=En&n=83F7624E-1

Draft Tri-Agency Research Data Management Policy[2] (2018)

Government of Canada | Gouvernement du Canada

Home → Collaboration between Federal Research Funding Organizations → Policies and Guidelines → Research Data Management

DRAFT
Tri-Agency Research Data Management Policy
For Consultation

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.

The agencies expect the research they fund to be conducted to the highest professional and domain standards, domestically and internationally. These standards support research excellence by ensuring that research is performed ethically and makes good use of public funds, experiments and studies are replicable, and research results are as accessible as possible.

Research data are data that are used as primary sources to support technical or scientific enquiry, research, scholarship, or artistic activity, and that are used as evidence in the research process or are commonly accepted in the research community as necessary to validate research findings and results. All other digital and non-digital content have the potential of becoming research data. Research data may be experimental data, observational data, operational data, third party data, public sector data, monitoring data, processed data or repurposed data. [1] Research data enable researchers to ask new questions, pursue novel research programs, test alternative hypotheses,

[2] http://www.science.gc.ca/eic/site/063.nsf/eng/h_97610.html [shortened: bit.ly/TA-RDM-Policy]

Draft Tri-Agency RDM Policy[2]

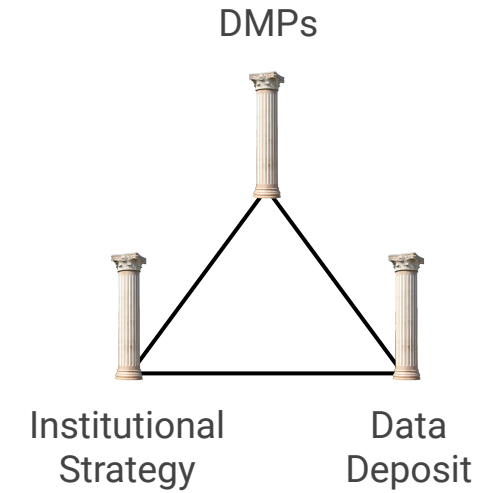
Released in June 2018; consultation period from June-Sep, 2018

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

Three Pillars:

1. Institutional Strategy
2. Data Management Plans
3. Data Deposit

Planned launch in winter 2019.
Phased and incremental implementation



[2] http://www.science.gc.ca/eic/site/063.nsf/eng/h_97610.html [shortened: bit.ly/TA-RDM-Policy]

Institutional Strategy

"Each institution administering tri-agency funds is required to create an institutional research data management strategy. The strategy will outline how the institution will provide its researchers with an environment that enables and supports world-class research data management practices…"

- Fostering and promoting excellence in data management
- Supporting data management practices that are consistent with ethical, legal and commercial obligations [notably, the TCPS2]
- Providing guidance inline with **Tri-Agency Statement of Principles on Digital Data Management**[1]

[1] http://www.science.gc.ca/default.asp?lang=En&n=83F7624E-1

Institutional Strategy

"Each institution administering tri-agency funds is required to create an institutional research data management strategy. The strategy will outline how the institution will provide its researchers with an environment that enables and supports world-class research data management practices..."

- Developing their own data management policies and standards
- Ensuring that their researchers have data management plans in place
- Providing, or supporting access to, recognized repository services
- Consulting with existing resources to support the development of their strategies, such as the **Portage Network's Institutional Strategy Template**[3].

[3] https://portagenetwork.ca/network-of-experts/institutional-rdm-strategy/

Data Management Plans

"...The agencies encourage grant applicants to complete data management plans (DMPs) as an essential step in research project design. For specific funding opportunities, the agencies may require DMPs to be submitted to the appropriate agency at time of application; in these cases, the DMPs may be considered in the adjudication process."

[2] http://www.science.gc.ca/eic/site/063.nsf/eng/h_97610.html [shortened: bit.ly/TA-RDM-Policy]

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**[4]

[4] https://portagenetwork.ca/network-of-experts/institutional-rdm-strategy/

Data Deposit

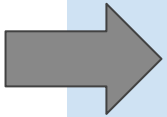
"Grant recipients are required to deposit into a ***recognized digital repository*** *all digital research* ***data, metadata and code*** *that* ***directly support the research conclusions*** *in journal publications, pre-prints, and other research outputs that arise from agency-supported research…"*

- The repository will ensure safe data storage, preservation, and curation
- The agencies encourage researchers to provide access to the data where ethical, legal, and commercial requirements [e.g. TCPS 2] allow, and in accordance with the standards of their disciplines.
- Whenever possible, these data, metadata and code should be linked to the publication with a persistent digital identifier.

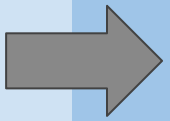
[2] http://www.science.gc.ca/eic/site/063.nsf/eng/h_97610.html [shortened: bit.ly/TA-RDM-Policy]

Points of Discussion

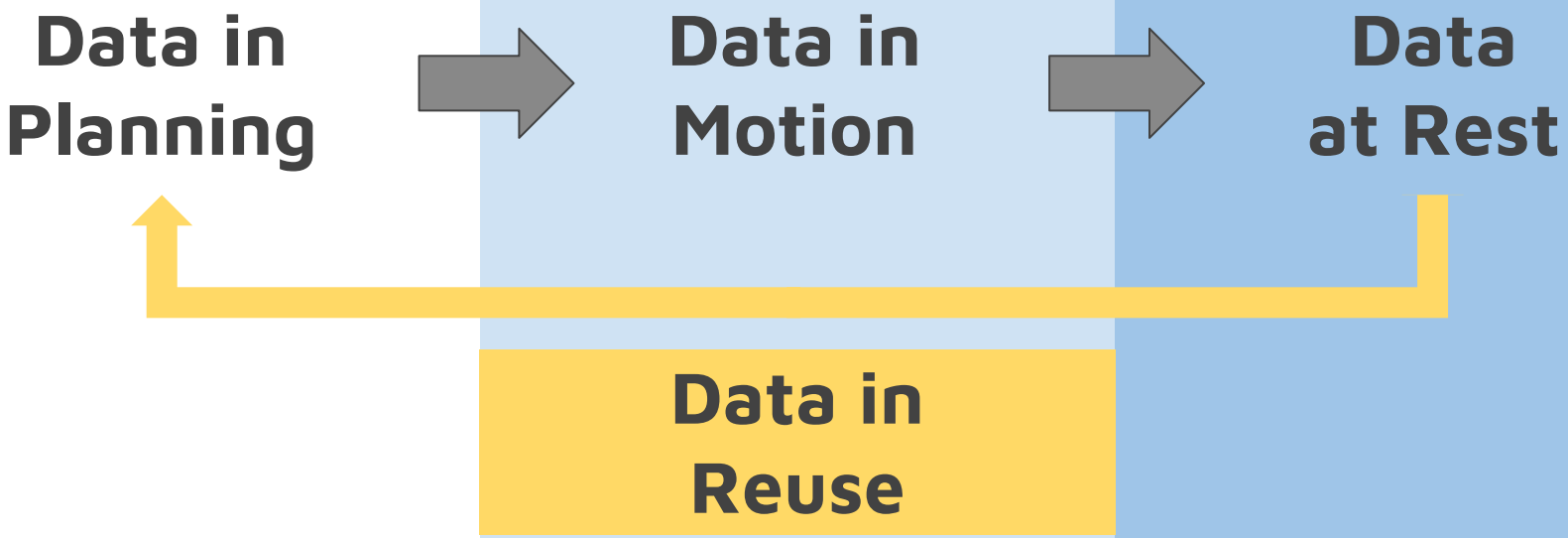
Data in Planning



Data in Motion



Data at Rest

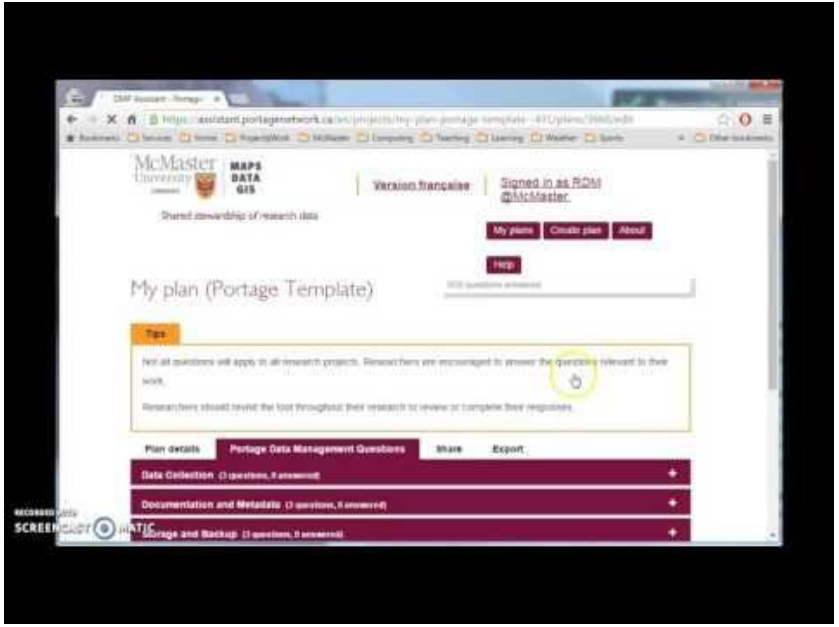

Data in Planning
Data in Motion
Data at Rest
Data in Reuse

Are DMPs asking the "right" questions?

Can researchers access resources to complete DMPs appropriately?

Does the institution have the capacity to evaluate DMPs?

How can the institution streamline DMP and REB processes?



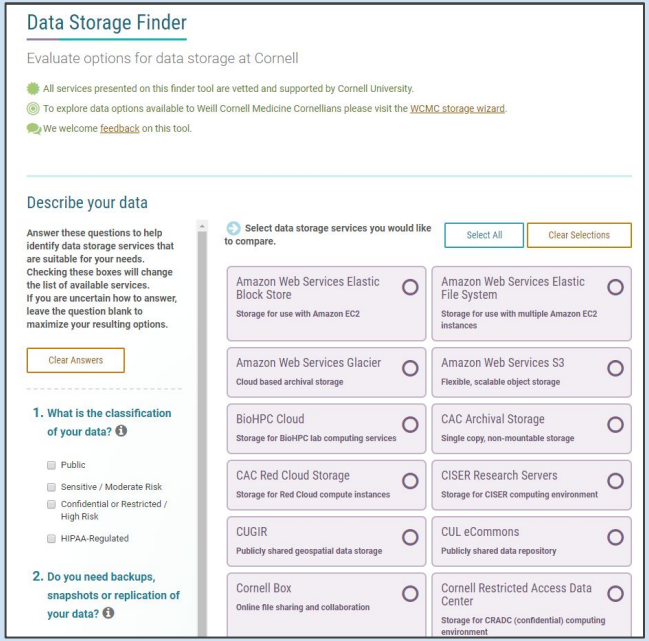
Portage DMP Assistant
assistant.portagenetwork.ca

Data in Planning → Data in Motion → Data at Rest

Are we providing researchers with appropriate:

- Triage and assessment guidance
- Methodological guidance
- Options for file storage, backup, sharing?
  - Deeper consideration of cloud options like OneDrive and sync.com

How to enable sharing across institutional collaborators that satisfies all REBs?



Cornell Data Storage Finder
finder.research.cornell.edu/storage

Data in Planning → **Data in Motion** → **Data at Rest**

Moving beyond ‘default = destroy’ …

… while assessing re-identification risk

Understanding and accommodating ‘disciplinary standards and practices’

Demystifying repository vs archival storage

Portage Responsible RDM Practices for Sensitive Data Working Group

https://portagenetwork.ca/network-of-experts/responsible-rdm-practices-for-sensitive-data-working-group/

More Information

McMaster Library's RDM page

library.mcmaster.ca/services/rdm

Contact: rdmgmt@mcmaster.ca

CARL Portage Network

portagenetwork.ca

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