

Data Management Plans

James Doiron

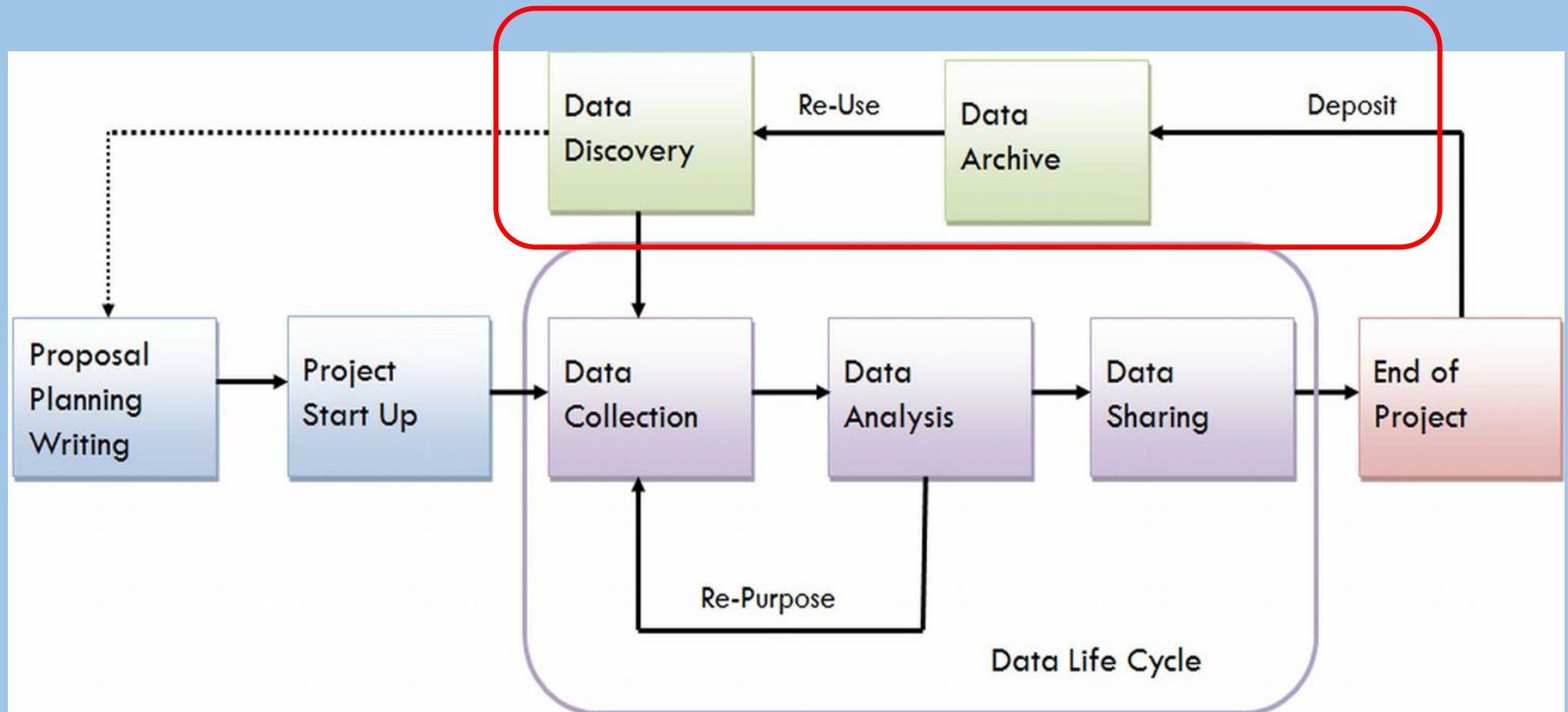
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Shifting Horizons II: Realities of RDM Services

University of Ottawa
February 20, 2020

What is Research Data Management?

RDM = managing data throughout all phases of the research lifecycle....through active phases and beyond

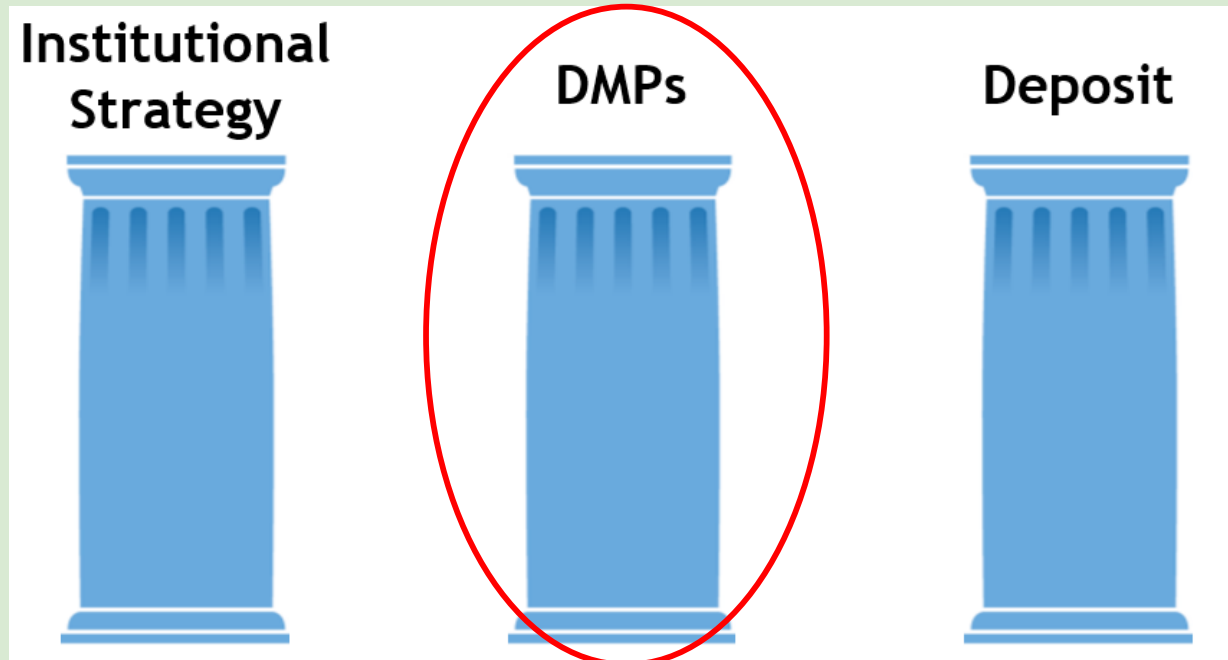


Source: "E-Science and the Life Cycle of Research", Humphrey, C. (2006)

Tri-Agency RDM Policy (Draft) - 2018

- In the Spring of 2018, the Tri-Agencies released a draft of the “[Tri-Agency Research Data Management Policy](#)”
- Release of a final policy is expected in Spring 2020

The draft policy includes suggested requirements related to three primary areas:



Tri-Agency RDM Draft Policy - “Take away points”

Institutional Strategy:

“Each institution administering tri-agency funds is required to create an institutional research data management strategy”

Data Management Plans:

“...specific funding opportunities may require DMPs to be submitted to the appropriate agency at time of application

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

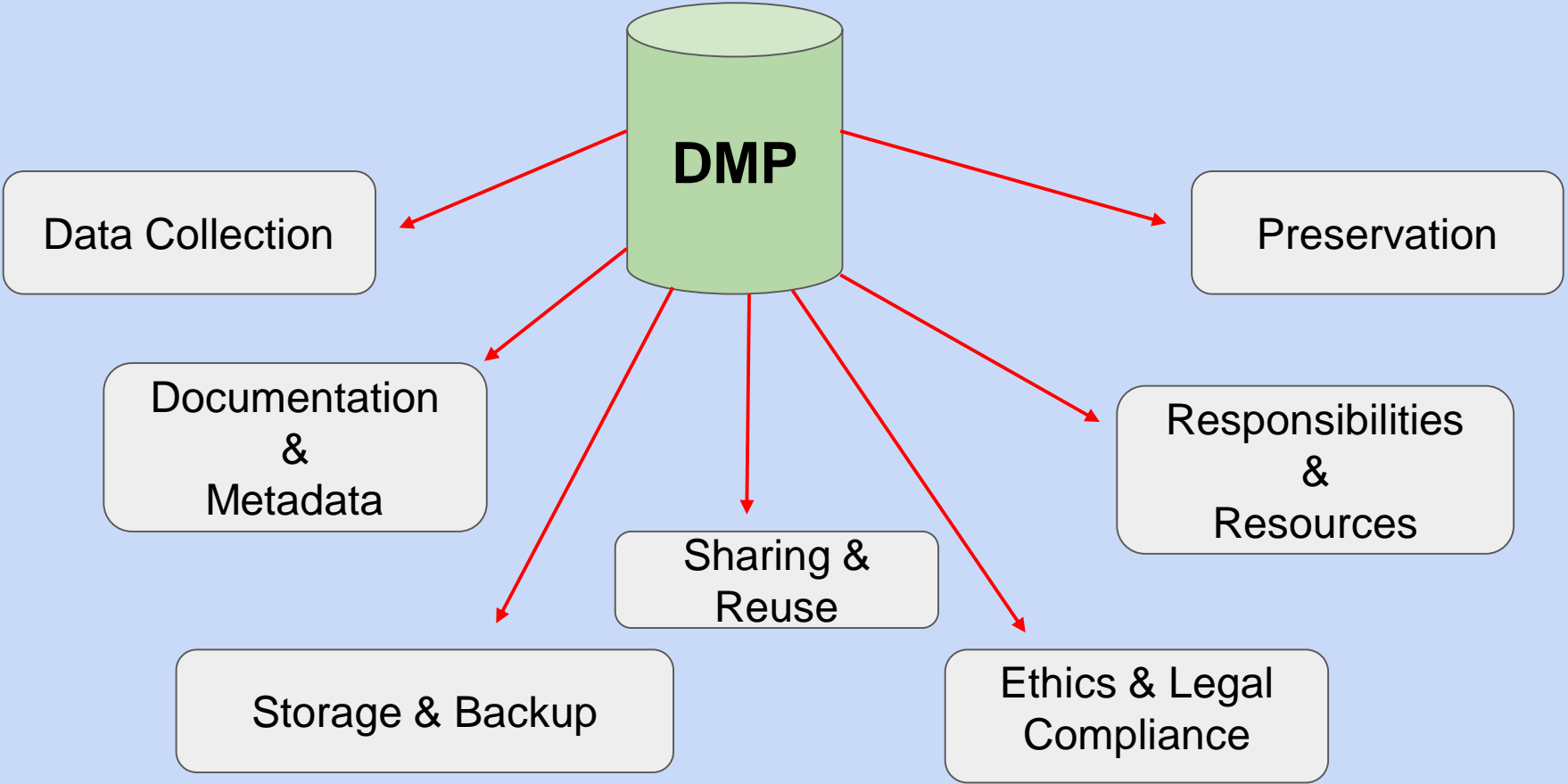
What *is* a data management plan (DMP)?

A DMP:

- Is a formal document which clearly articulates the strategies and tools you will implement to effectively manage your data
- Speaks to the management of data both **during** the active phases of your research and **after** the completion of the research project.

The objective of a DMP is to address issues related to data management prior to starting your research project!

A DMP provides information across key research lifecycle categories:



Why are DMPs important?

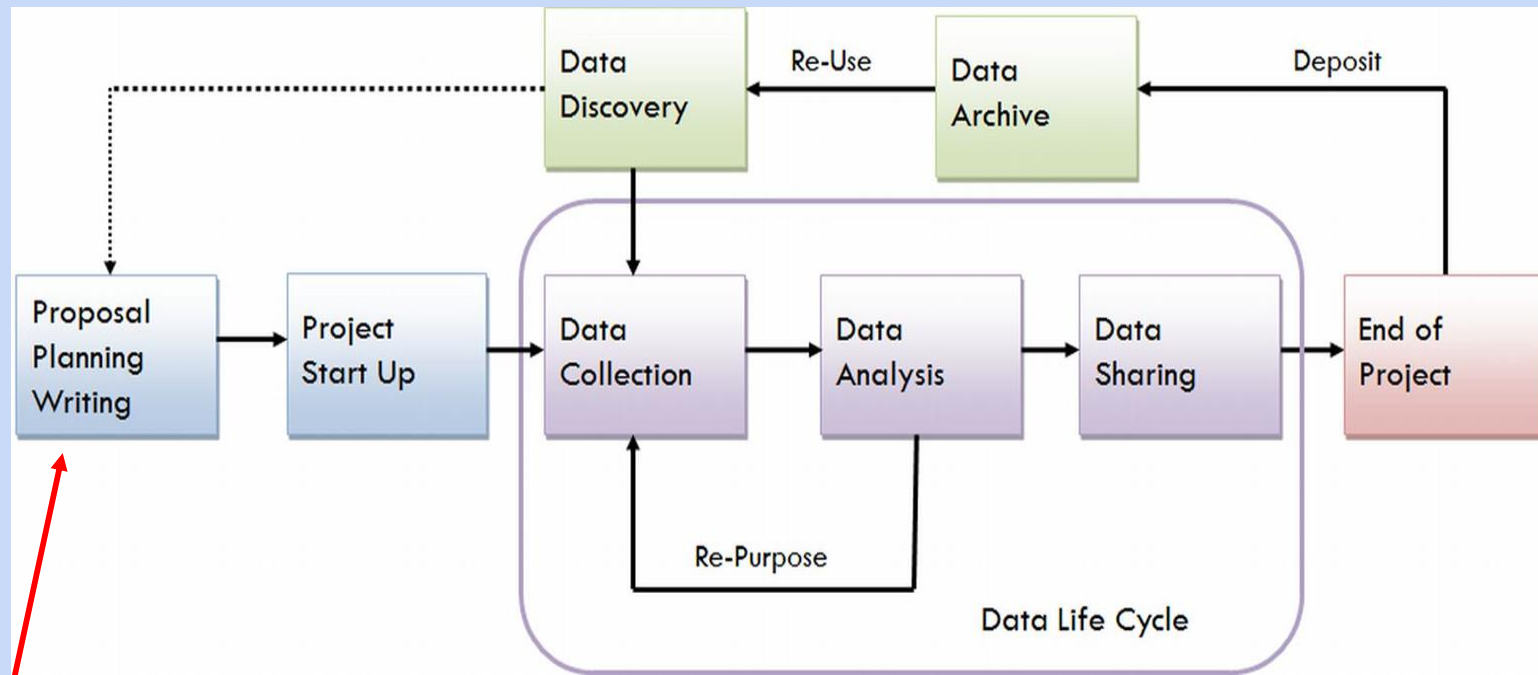
A data management plan is important to the research process as it can help you to:

- set out consistent strategies prior to starting your research for how data will be managed throughout its entire lifecycle
- identify the strengths & weaknesses in your current practices and make decisions on how to integrate effective data management practices into your process
- prepare data for future reuse, preservation and sharing
- reduce the overall cost of research by increasing project efficiencies

When should I start creating a DMP?

A DMP should be developed as early in the research process as possible!

Every research project should **begin** with the creation of a DMP, as it will be used to guide the research process.



DMP

DMP General guidelines

Begin by providing a description of your research project, its focus, and purpose

Avoid extensive use of discipline specific jargon - your DMP should be easily understood by anyone!

Provide clarification for any acronyms used

Do not leave sections or questions blank

Provide rationale for decisions made - help others understand *why* you have made a decision

Your DMP is a living document - update it as needed!

DMP Sections: Data Collection

Include descriptions of *how* you will collect data, including from where and in what format(s)

Provide an estimate of the amount of data you will collect (e.g., MBs/GBs/TBs).

Describe any software and/or platforms that will be used for data collection

Explain how you will organize your data, including details relating both to file naming and versioning

Clearly explain how you will both store and transfer data

DMP Sections: Documentation & Metadata

Describe what information will be needed for others to understand or reuse your data.

Describe how you will consistently capture documentation throughout the project.

Choose a [metadata standard](#) suited to your discipline and/or chosen data repository, or provide rationale for creating your own.

DMP Sections: Storage & Backup

Provide an estimate of storage space needed during the active phases of your research - remember to take into account file versioning, backups, and data growth!

If needed, follow the 3-2-1 backup rule:

3 copies of your data, on 2 different storage media, with 1 located offsite.

State a data backup schedule, automatic being most ideal.

Describe how collaborators or research team will be able to access, modify, contribute, and work with your data.

DMP Sections: Preservation

Consider the value of your data and decide which, if any, should be preserved

Consider optimal file formats (preferably non-proprietary) for supporting long-term preservation

DMP Sections: Sharing & Reuse

Consider the appropriate sharing of your data, including any funding or confidentiality requirements.

Explain what uses can be made of your data through licenses like [Creative Commons](#).

Consult with colleagues or librarians to choose an appropriate data repository or search [re3data.org](#) to find one.

Choose a repository that assigns permanent identifiers to datasets (e.g., DOI) to enhance discoverability, accessibility, and citability.

If applicable, describe how you will ensure file integrity, anonymization and de-identification.

DMP Sections: Responsibilities & Resources

Identify data stewardship roles and responsibilities of project members and other organizations during and after the project.

Estimate and describe any required resources and costs for data management and long-term access to your data.

DMP Sections: Ethics & Legal Compliance

Describe if there are any legal, ethical, and intellectual property issues when managing and sharing your data.

Explain how you will comply with any applicable privacy legislation and laws, including funding and institutional requirements.

Describe how you will ensure your data are securely managed after the project is completed

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

Home Contact Us Français

Training Resources Communities of Practice How to Manage Your Data Infrastructure Platforms Network of Experts Documents and Presentations About Portage

THE PORTAGE NETWORK is dedicated to the shared stewardship of research data in Canada through:

- Developing a national research data culture
- Fostering a community of practice for research data
- Building national research data services and infrastructure

Launched in 2015 by the [Canadian Association of Research Libraries](#), Portage works within the library community to coordinate expertise, services, and technology in research data management, seeking to collaborate with other research data management stakeholders.

Research data culture represents widely shared values and principles for digital data management.

A community of practice for research data consists of stakeholders working collaboratively to ensure data are accessible to address complex research issues.

Research data management activities span sectors, domains, and jurisdictions, necessitating nationally coordinated research data management services and infrastructure.

> [Read more](#)

DMP Assistant
Sign In Sign Up
If you have an existing account with DMP Assistant or previous version of DMP Builder. New to DMP Assistant? Sign up today.

FRDR DFDR
FEDERATED RESEARCH DATA REPOSITORY
DÉPÔT FÉDÉRÉ DE DONNÉES DE RECHERCHE

NEWS

JANUARY 8, 2020
Publication of Public Consultation Summary – Tri-Agency Research Data Management Policy

DECEMBER 20, 2019
CARL-Portage is hiring a Project Officer!

Portage Network

Portage is a national RDM network launched by CARL in 2015 which coalesces initiatives to build capacity and coordinate RDM activities in Canada

1. Networks of Expertise:

- Pan-Canadian RDM expertise
- Provides resources, tools, and experts in the area of RDM

1. Infrastructure Platforms

- Works to assemble and deliver essential RDM infrastructure and service components

**Portage provides bi-lingual expertise and resources*



Based on a national network of experts

Expert Groups

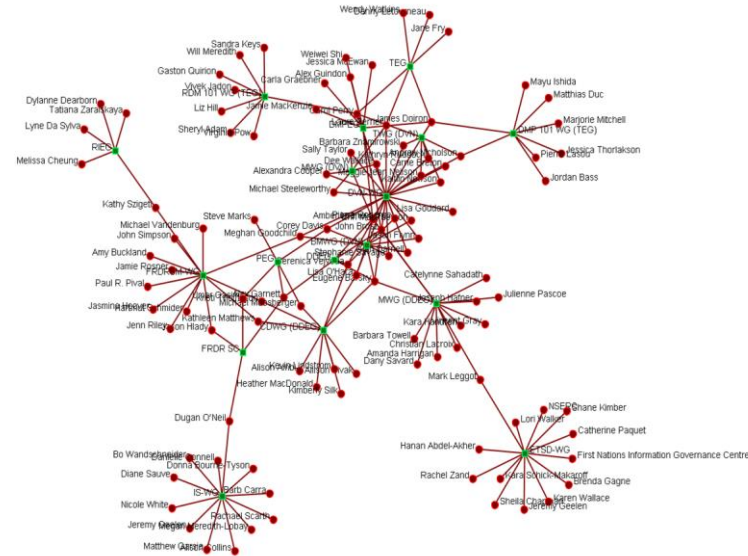
- **Data Management Planning**
- Curation
- Data Discovery
- Preservation
- RDM Training
- Research Intelligence
- Data Repositories

125+

Experts

59

Organizations



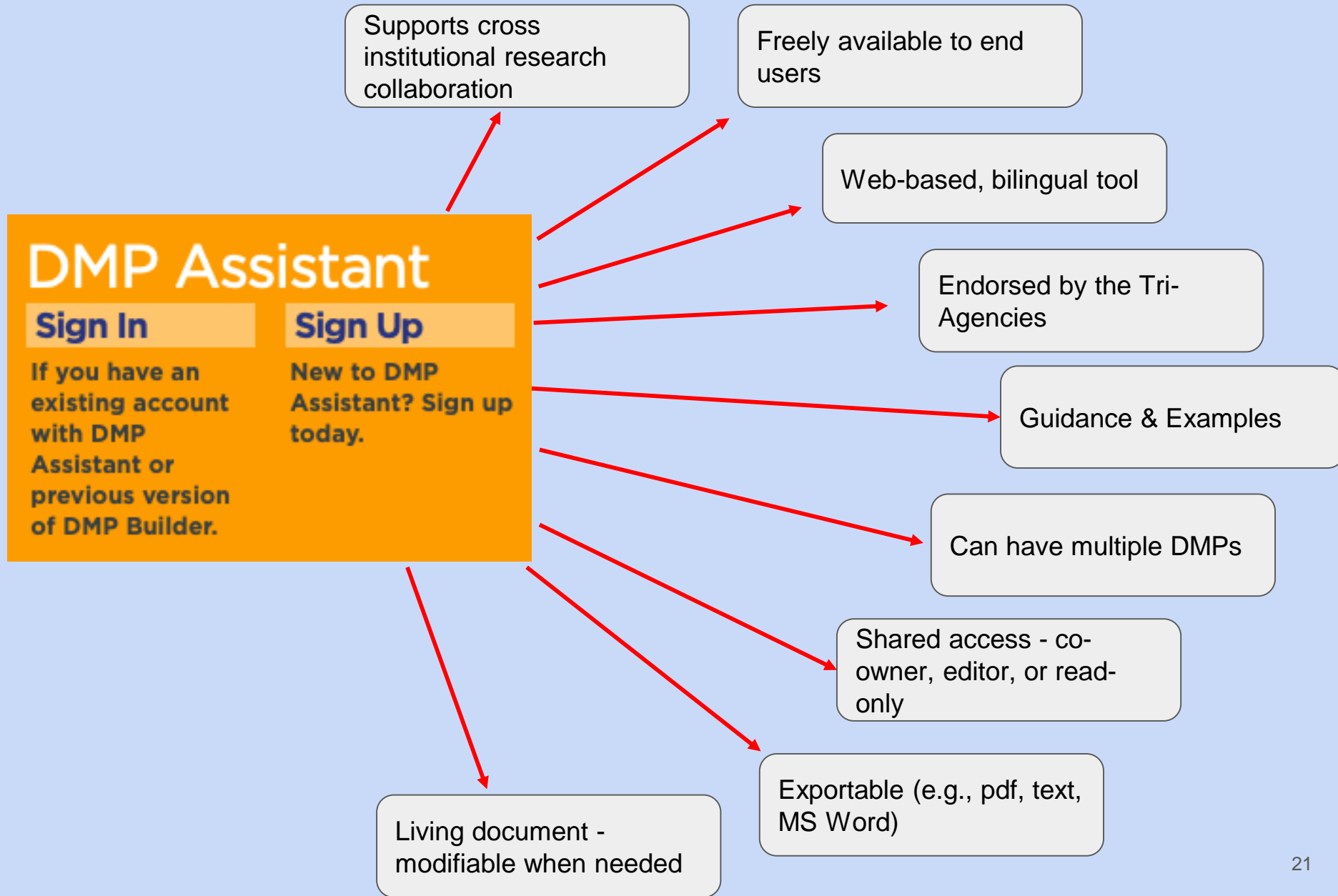
Working Groups

- Dataverse North
- Responsible Research Data Management
- FRDR Service Model
- Institutional RDM Strategies

Four working groups:

1. Exemplars
2. Policy
3. Training
4. DMP Repository

DMP Assistant Key Features



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.

Sign in



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

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.

Upon signing in, researchers can either access an existing DMP.....

My plans

The table below lists the plans that you have created, and any that have been shared with you by others. These can be edited, shared, exported or deleted at anytime.

Name	Owner	Shared?	Last edited	Select an action
My plan (University of Alberta Template)	Sheila Laroque	Yes (with 2 people)	21-11-2017	Edit Share Export Delete
Agricultural Greenhouse Gases Program (AGGP)	Mark Boyce	Yes (with 3 people)	06-11-2017	Edit Export
SFI (Portage Template)	Christopher Bidinosti	Yes (with 6 people)	07-10-2018	View Export

.....or create a new one

Each DMP has study level information associated with it

Plan details

University of Alberta Data Management Questions

[Share](#)[Export](#)

This page gives you an overview of your plan. It tells what your plan is based on and gives an overview of the questions that you will be asked.

[Edit plan details](#)

Plan name	CDCF Workshop
ID	8675309
Grant number	12345
Principal Investigator/Researcher	James Doiron
Principal Investigator/Researcher ID	9997
Plan data contact	James Doiron
Description	This is an example data plan used for educational purposes at the Canadian Data Curation Forum held in Hamilton, Ontario on October 16, 2019.

This plan is based on:

Institution	University of Alberta
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[Answer questions](#)[Export](#)

Researchers can choose to answer questions within any given section at any time ^U

CDCF Workshop

21/22 questions answered

Tips

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.

Plan details

University of Alberta Data Management Questions

Share

Export

Data Collection (6 questions, 6 answered)

+

Documentation and Metadata (3 questions, 3 answered)

+

Storage and Backup (2 questions, 2 answered)

+

Preservation (3 questions, 3 answered)

+

Data Sharing and Reuse (4 questions, 4 answered)

+





Responsibilities and Resources (4 questions, 3 answered)

+

Export

Data Collection (6 questions, 0 answered)





What types of data will you collect, create, acquire and/or record?

B *I* A **A**    

Save

Not answered yet

What file formats will your data be collected in? Will these formats allow for data re-use, sharing and long-term access to the data?

B *I* A **A**    

Save

Guidance **Share note**

UAlberta Guidance +

Examples: Images, audio, video, text, tabular data, modeling data, spatial data, instrumentation data

Guidance **Share note**

UAlberta Guidance +

Proprietary file formats which require specialized software or hardware to use are not recommended, but may be necessary for certain data collection or analysis methods. Using open file formats or industry-standard formats (e.g. those which are widely used by a given community) is preferred whenever possible.

Share note with collaborators

B *I* A ▾ A ▾ ▾

Save

Add collaborator

Email

Permissions:

- ✓ Co-owner
- Edit
- Read only
- Add collaborator**

Editors can contribute to plans. Co-owners have additional rights to edit plan details and control access.

From here you can download your plan in various formats. This may be useful if you need to submit your plan as part of a grant application.

Select what format you wish to use and click to 'Export'.

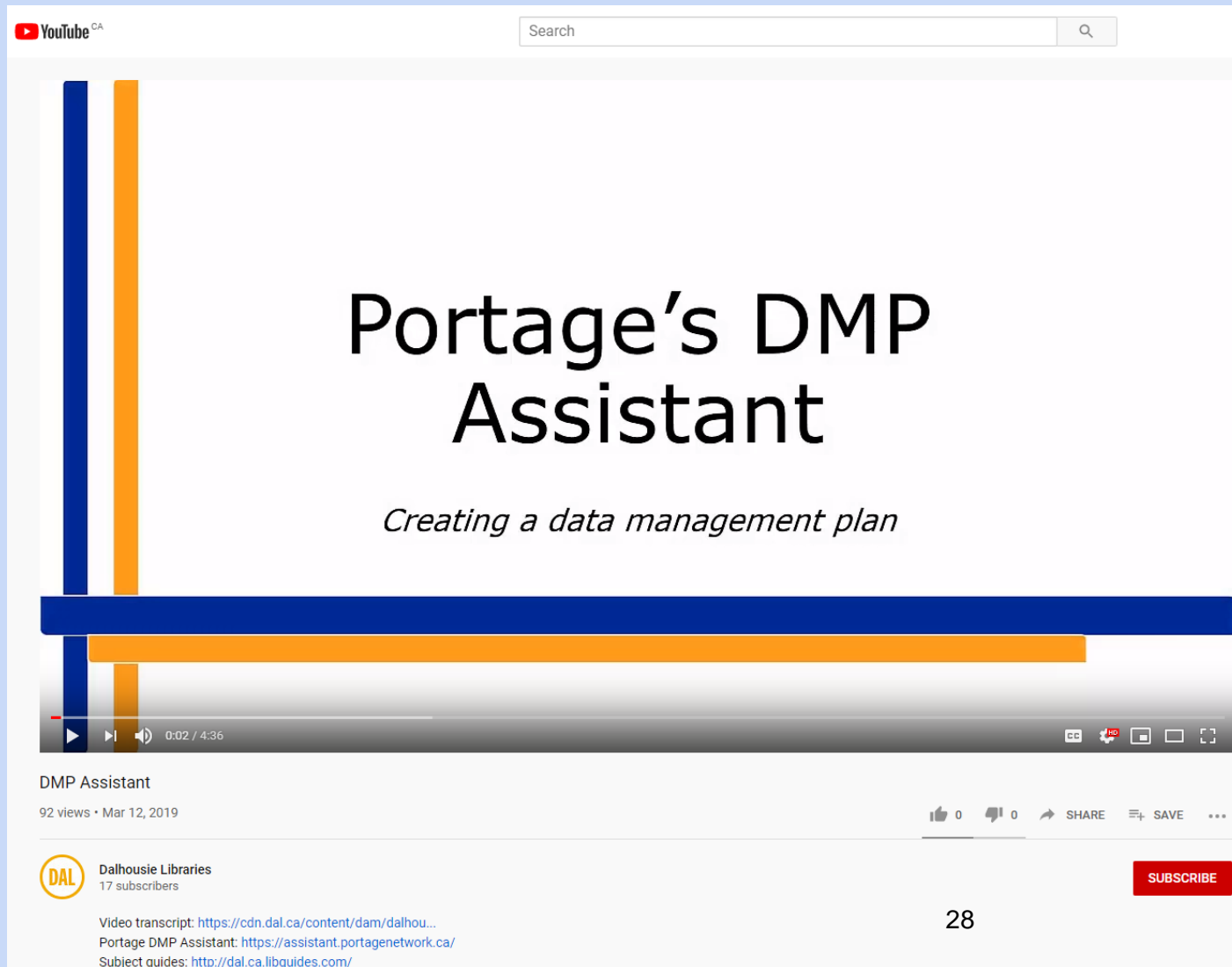
Format

pdf

Settings (Using default PDF formatting values)

Short tutorial video

https://libcasts.library.dal.ca/Portage/DMP_Assistant/



The image shows a YouTube video player interface. At the top left is the YouTube logo with a 'CA' superscript. A search bar is located at the top center. The video content area features a white background with a blue and orange graphic on the left side. The main title is 'Portage's DMP Assistant' in a large, black, sans-serif font. Below the title is the subtitle 'Creating a data management plan' in a smaller, italicized, black font. The video player controls are visible at the bottom of the video area, showing a play button, a progress bar at 0:02 / 4:36, and various icons for closed captions, HD, and full screen. Below the video player, the video title 'DMP Assistant' is displayed, along with '92 views • Mar 12, 2019'. To the right of the title are icons for likes (0), dislikes (0), share, save, and a menu icon. Below the video player, the channel name 'Dalhousie Libraries' is shown with a circular logo containing 'DAL' and '17 subscribers'. A red 'SUBSCRIBE' button is located to the right of the channel name. At the bottom left, there are three links: 'Video transcript: <https://cdn.dal.ca/content/dam/dalhou...>', 'Portage DMP Assistant: <https://assistant.portagenetwork.ca/>', and 'Subject guides: <http://dal.ca.libguides.com/>'. The page number '28' is located at the bottom right.



Questions & Discussion

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