Session 3

Data Management Plans for Humanities and Social Sciences

Nick Rochlin

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Data Management Plans (DMPs) for Humanities

Nick Rochlin RDM Specialist, UBC ARC

Overview

- What is research Data Management (RDM) and why should I care?
- Tri-Council RDM Policy & FAIR Principles
- Identifying your data What is data in the humanities?
- Data Management Plans (DMPs)
- Resources

What is RDM?

"Research data management (RDM) involves the active organization and maintenance of data throughout the research process, and suitable archiving of the data at the project's completion. It is an ongoing activity throughout the data lifecycle."

The Research Data Lifecycle



Research Data Life Cycle and individual steps in the next sections are adapted and revised from: Portage Network's RDM 101 Training Module 4: Steps Towards Good Research Data Management under a CC BY-NC-SA 4.0 license

Why should I care?

A Data Management Plan (DMP) will...

- Save you time
- Save you headaches
- Help you identify services/tools/workflows that are best suited to your work
- Enable the preservation and reuse of your data
- Promote transparency and reproducibility of research

Why should I care?

Upcoming <u>Tri-Council RDM</u>
<u>Policy</u>

Rearchers

- Are encouraged, and may be required, to submit a DMP when applying to funding
- Are required to deposit all data, metadata, and code into a digital repository

Institutions

Are required to create an RDM strategy

To be FAIR...

FAIR Data Principles



To be FAIR...

Benefits of FAIR Principles:

- **Researchers** Better research output
- **Funders** Add more value to publicly funded research
- Publishers Improve the peer-review process
- **Universities** Ensures high research integrity

Identifying Your Data

What are research data?

"Research data are the original sources or material that you have created or collated to conduct your research project. They can be digital or non-digital. The response to your research question is based on the analysis of these research data."

What are research data?

Examples of data:

- Transcripts
- Audio recordings
- Photographs
- Videos
- Field notes
- Historical documents
- Artistic processes
- Social media posts
- Spreadsheets
- Computer code

What type of data do you work with?

Padlet:

https://padlet.com/nickrochlin/iaesup
5ipfwzjpxf

Data Management Planning

Portage DMP Assistant

DMP Assistant

- Tool for preparing DMPs
- Step-by-step questions about data management
- Provides guidance and examples
- DMP 2.0 in production with discipline-specific templates

Portage DMP Assistant

Elements of a DMP

- Data Collection
- Metadata
- Storage, Backup, & Access
- Sharing & Reuse
- Ethics & Legal Compliance
- Responsibilities & Resources
- Preservation

Q1. What types of data will you collect, create, link to, acquire, and/or record?

Examples: numeric, images, audio, video, text, tabular data, modeling data, spatial data, instrumentation data.

Q2. What file formats will your data be collected in? Will these formats allow for data reuse, sharing, and long-term access?

- Databases: XML, CSV
- E-Books: EPUB
- Images: JPG, PNG, PDF, TIFF, BMP
- Sound: MP3
- Text: TXT, CSV, PDF/A, ASCII, UTF-8
- Video: MPG, MOV, AVI
- Spreadsheets: CSV

source

Q3. What conventions and procedures will you use to structure, name, and version-control your files to help you and others better understand how your data are organized?

- Be informative, consistent, and concise
- Guides on file naming and version control:
 - o <u>UBC Library</u>
 - o <u>UK Data Service</u>

Bonus questions from upcoming arts-based template

Do you plan to use datasets published from others? Where will you collect them from?

Bonus questions from upcoming arts-based template

How will you digitally document artwork, artistic processes, and other non-digital data? What conditions, hardware, software, and skills will you need?

- Non-digital data should be digitized when possible so you can
 - Return artwork to participants
 - Create records of performances
 - Deposit data in a repository for reuse

Bonus questions from upcoming arts-based template

What conditions, hardware, software, and skills will you need?

- When planning your documentation, consider:
 - Conditions (good lighting, sound dampening, etc.)
 - Hardware (microphone, smartphone, etc.)
 - Software (editing programs, etc.)
 - Specialized skills (filming techniques, editing skills, etc.)

Section 2: Documentation & Metadata

Q1. What documentation will be needed for the data to be read and interpreted correctly in the future?

- Project-level information (e.g. admin info, research design, methodology)
- Item-level descriptions (vocabularies, assumptions made, data capture and collection methods, details of who performed tasks, etc.)
- Any other contextual information required to make the data interpretable and usable by others

Section 2: Documentation & Metadata

Q2. How will you make sure the documentation is created or captured consistently throughout your project?

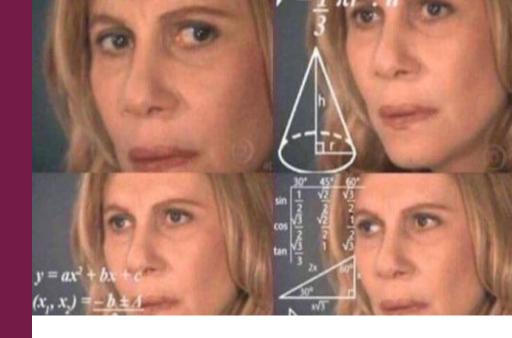
- Clear articulation of how this will be done and by whom
- Need accurate, consistent, and complete documentation

Section 2: Documentation & Metadata

Q3. If you are using metadata standards and/or tools to document and describe data, please list here

See <u>DCC Disciplinary Metadata</u>
 resource for domain-specific standards

Questions?



Source

Q1. What are the anticipated storage requirements for your project? How long will you store them?

- Consider file versioning and backups
- Consider how data grows over time
- Consider storing data beyond end of project

Q2. How and where will your data be stored and backed up during your research project?

- Consider the 3-2-1 rule:
 - At least 3 copies
 - On 2 different media (e.g. network storage, hard drive, USB, etc.)
 - With 1 copy at a different location
- Make sure things align with funder, institutional, and other relevant regulations/policies

Q3. How will the research team and other collaborators access, modify, and contribute data throughout the project?

- Shared drives, a.k.a. "the cloud"
- Private cloud: internal to an institution
- Public cloud: Dropbox, Google Drive

Consider the risk of loss, unintended copies, unintended recipients when transfering or storing materials in the cloud

Bonus question from upcoming arts-based template

How will you store non-digital data during your project

- Physical space
- Equipment needed
- Special conditions

Make sure these align with funder, institutional, or other relevant regulations/policies

Q1. Where will you deposit your data for long-term preservation and access at the end of your research project?

- Not all repositories preserve data, so check before you decide
- Some options for repositories
 - Institutional
 - \circ FRDR
 - Re3data.org (list of disciplinary repositories)

Q2. How will you ensure your data is preservation ready?

- Convert to preservation-friendly file formats
- Check for unintended changes to files
- Confirm completeness of metadata
- Gather supporting documents

Q3. Are there data you will need or choose to destroy? If so, how will you destroy them?

- Data without long-term value
- Data which are too sensitive to preserve
- Data which must be destroyed due to data agreements

Deleting files from your computing is not a secure method of data disposal!

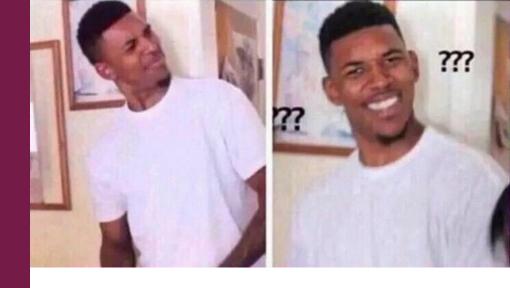
Bonus question from upcoming arts-based template

What are your preservation needs for your digital data?

Remember: Your data should be Findable, Accessible, Interoperable, and Reusable (FAIR)

What are your preservation needs for your non-digital data?





Section 5: Sharing & Reuse

Q1. What types of data will you share and in what form?

- Raw data: what you collect/create/etc.
- Processed data: manipulated in some way after collection/creation
- Analyzed data: results of qualitative, statistical, or mathematical analysis of processed data
- Final data: processed data in a preservation-friendly format

Section 5: Sharing & Reuse

Q2. Have you considered what type of end-user license to include with your data?

- Creative Commons
- Open Data Commons

See <u>DCC</u> resources on choosing a license

Section 5: Sharing & Reuse

Q3. What steps will be taken to help the research community know that your data exists?

For researchers: data repositories, data citations, academic journals, word of mouth, project/personal website

For artists/public: social media, organizations, community partners

Section 5: Sharing & Reuse

Bonus question from upcoming arts-based template

Who owns the data you will use in your project? Will the ownership affect their use, sharing, and reuse?

Section 6: Responsibilities & Resources

Q1. Who will be responsible for managing research data during and after your project? What will their tasks be?

Q2: If responsibilities for managing research data needs to be transferred to other individuals or organizations, who will assume responsibility and how?

Section 6: Responsibilities & Resources

Q3. What resources will you need to implement your data management plan?

- Hardware (computers, hard drives, servers, etc.)
- Digitizing materials
- Cloud services
- Repository space
- Personnel (salaries, training)

Section 7: Ethics & Legal Compliance

Q1. If your research project includes sensitive data, how will you ensure it is securely management and accessible only to approved members of the project?

- Who's going to have access?
- Where will it be stored?
- How long will data be retained?

Section 7: Ethics & Legal Compliance

Q2. If applicable, what strategies will you undertake to address secondary uses of sensitive data?

- Consent forms
- De-identify data
- Implement access restrictions on deposited data

Consult your research ethics office!

Questions?



source

Key Takeaways for Creating DMPs

- Be in the mindset of what could happen, what might happen, and what you might decide to do, as well as what you plan to do
- Think about the tough questions
 before you're confronted with
 them!

Key Takeaways for Creating DMPs

- Provide a rationale for decisions made: help readers understand why you made a decision
- Be **clear and transparent**: avoid jargon, explain acronyms, write in full sentences, etc.
- Update your DMP as needed

Resources

- DMP Brief Guide
 - o <u>EN</u>, <u>FR</u>
- Create an Effective DMP
 - o <u>EN</u>, <u>FR</u>
- Portage Training Resources
 - DMP Exemplars
 - o Repositories guidance
 - Metadata guidance
 - Curated external resources

Where To Get Support

- Data Management Support
 Personnel and/or librarians at your institution
- Research Offices and/or Research
 Ethics Boards at your institution

Ask for help!

Questions?



source

Housekeeping

The presentation, but not the discussion portion of this session will Cet atelier est enregistré, à l'exception de la période de questions. be recorded. Please stay muted unless asking a question. We will be taking Fermez votre microphone. Il y aura une période de questions de vive voix à la fin de l'atelier. Si vous avez une question, cliquez sur on-mic questions at the end, if you have one, use the raise hand Réactions ou Participants dans la barre inférieure de la fenêtre button in the reactions menu, or the participants menu (It will be in Zoom, puis sur *Lever la main* et attendez qu'on vous invite à parler. a different location depending on whether your Zoom is up to date), then you will be invited to ask your question on mic. During and after the session you can put questions in the slack À tout moment, vous pouvez poser une question par écrit dans workspace chat. The channel for this session is "session-3". We l'espace de clavardage Slack, sur le canal "session-3". Vous pourrez have helpers watching that channel who will be answering recevoir une réponse immédiatement ou votre question sera questions throughout the session and will direct pertinent questions communiquée à la personne qui dirige l'atelier. Nous resterons towards the presenter as well. If we do not get all the Slack disponibles sur Slack après la présentation pour répondre aux questions answered during the session we will continue to answer questions qui n'auront pas été traitées. them in Slack after the zoom session ended.











Housekeeping

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