UWINNIPEG RESEARCH DATA MANAGEMENT STRATEGY (UWRDMS) 2023 – 2026
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Prepared by Jaime Orr (Research Data Management Librarian) and Sarah Giesbrecht (Interim Research Data Management Librarian), on behalf of the RDM Strategy Working Group, Academic Advisory Committee, and Executive Sponsor Committee.

1.0 INTRODUCTION & BACKGROUND

The University of Winnipeg is a medium-sized institution that excels at research, with a rapidly growing and diversifying research profile. UWinnipeg has a history of strong interdisciplinary research based on partnerships between departments, other post-secondary institutions, and external organizations, including community-based research partners. To continue expanding our research capacity, the commitments and roadmap outlined in this Strategy will further enable our faculty to pursue research funding and successfully complete their research activities.

Enabling the storage, access, and reuse of research data produced from our innovative and diverse research programs will increase the global impact of our researchers and our university. By responsibly storing and sharing our research data, UWinnipeg can steward public funds and increase returns on that public investment, enable global reach and reuse of our data, and promote equitable community access to research data. UWinnipeg recognizes that research data management (RDM) is an essential part of research excellence and affirms the Tri-Agency Statement that RDM is "necessary at all stages of the research project lifecycle, from design and inception to completion".[1] We are pleased to present this UWinnipeg Research Data Management Strategy (UWRDMS), which will guide our efforts over the next three years.

2.0 STATEMENT OF INTENT

With this Strategy, UWinnipeg will take a coordinated, university-wide approach to building and maintaining financial, technological, personnel and policy capacity for RDM and data stewardship.

3.0 KEY DEFINITIONS

The following definitions apply to terms used in the UWRDMS:

Data refers to 'research data' in the context of this Strategy.

Data Management Plan (DMP): A DMP is a formal document detailing what strategies and tools will be used to manage the research data and/or other research materials through each stage of the project.

Digital Research Infrastructure (DRI): "The collection of tools and services that allow researchers to turn big data into scientific breakthroughs."[2] Key elements include cyber security; data management, storage, preservation, and sharing; research software, and advanced research computing.

Indigenous data sovereignty: The right of each First Nation, Métis, and Inuit community, collective, and organization to govern the collection, ownership, access, and possession of their own data.

Research Data: "Data that are used as primary sources to support academic enquiry, research, scholarship, or creative practice, and that are used as evidence in the research process and/or are commonly accepted in the research community as necessary to validate research findings and results".[3]

Research Data Management (RDM): The responsible collection, documentation, storage, sharing, and preservation of the data created or generated as part of a research project.

Researcher: Includes graduate students, postdoctoral fellows, librarians, research associates, lecturers, assistant professors, associate professors, professors, and adjunct professors. In the context of this Strategy, the term 'researcher' also refers to research support staff, which includes Research Assistants and Research Coordinators.

4.0 KEY CONSIDERATIONS

The process of developing this Strategy identified the following considerations for RDM support at UWinnipeg, which impact the Strategic RDM Commitments outlined in section 5.

1. The federal and provincial policy and legislative RDM requirements continue to evolve, such as those from the Tri-Agency and Research Improvements Through Harmonization in Manitoba (RITHIM). As such, the academic and research policy landscape at UWinnipeg must continually adapt to meet these mandates.
2. The University of Winnipeg's researcher community is supported by numerous departments across campus, including the Library, the Research Office, and the Technology Solutions Centre. These departments will need to collaborate and expand their dedicated support for RDM (storage, preservation, sharing, etc.).
3. RDM is broad in its scope, yet researchers and their disciplines represent a vast diversity of standards, norms, and approaches to scholarly research and data management. Effective support for RDM requires a commitment to understanding the specific needs of researchers, followed by the development of RDM training and services that meet those needs.
4. Research that involves data created in the context of research by and with First Nations, Métis, and Inuit communities, collectives, and organizations must be managed according to principles developed and approved by them and in partnership with them.[4]

5.0 RDM COMMITMENTS

The following commitments are essential to ensure sustainable RDM and data stewardship practices at UWinnipeg.

Commitment #1:

UWinnipeg will offer researcher-focused, discipline-specific support that guides the research community to responsibly manage data in accordance with global RDM principles and relevant Tri-Agency polices.

Commitment #2:

UWinnipeg will create and maintain policies and procedures to support common practices in data management and harmonize with the policy landscape at the University of Winnipeg.

Commitment #3:

UWinnipeg will commit to supporting Indigenous data sovereignty across all institutional levels and throughout every stage of the research data lifecycle.

Commitment #4:

UWinnipeg will invest in and maintain specialized digital research infrastructure and services to support research data security, storage, preservation, and dissemination that meets researcher and institutional needs.

Commitment #5:

UWinnipeg senior executive will provide oversight, ensure coordination across key stakeholder areas, and ensure long-term financial support for digital research infrastructure and personnel to supplement the ongoing support and funding from the Tri-Agencies.

6.0 STRATEGY ROADMAP 2023-2026

The above commitments require a robust implementation plan, which is summarized in the following roadmap and outlines the specific initiatives, partnerships, timelines, and required resources to fulfill our commitments.

Strategic Commitment #1: Service & Support

Current State: General training is offered occasionally, documentation developed, data management planning and data sharing services are available. Limited take-up of RDM services. Long-term financial support for some personnel.

Objective: Training is offered regularly, documentation developed, data management planning and data sharing services are available and publicized. Widespread take-up of RDM services. Training meets researcher needs. Long-term financial support for personnel.

Initiative	Implementation Timeline	Responsibility
General, discipline-specific, researcher-level-specific, and topic-specific RDM consultation services are available.	Phase 1 (1 year)	Library with support from the Research Office (RO), Technology Solutions Centre (TSC), the

		University Human Research Ethics Board (UHREB), and Information and Privacy Office (IPO)
General, discipline-specific, researcher-level-specific, and topic-specific RDM training (workshops, webinars, and guidance material) are available synchronously and asynchronously to researchers.	Phase 2 (2 year)	Library with support from RO, TSC, Departments, Research Centres, UHREB, IPO

Strategic Commitment #2: Institutional Policies & Procedures

Current State: Development of some RDM policies and procedures.

Objective: RDM Policies and procedures are developed and harmonized with the policy landscape at UWinnipeg.

Initiative	Implementation Timeline	Responsibility
Draft and implement data management planning-related procedures and guidelines (e.g., expectations of DMP creation, submission and/or review).	Phase 1 (1 year)	Library with support from RO, TSC
Develop security and risk assessment policy addressing data protection, storage, access, and transfer requirements based on data risk level, as well as specific requirements mandated by legislation.	Phase 1 (1 years)	TSC, IPO, with support from Library
Develop Institutional RDM Policy and Procedures outlining expectations and responsibilities of researchers and the University.	Phase 2 (2 years)	Library with support from RDM Strategy Working Group
Develop Institutional Preservation Policy for the long-term preservation of research data.	Phase 3 (3 years)	Library, TSC

Strategic Commitment #3: Indigenous Data Sovereignty

Current State: RDM Librarian aware of the ways Indigenous data should be collected, protected, used, and shared in partnership and in accordance with the priorities of Indigenous communities, collectives, and organizations. Resources for researchers in development.

Objective: Researchers are accountable and aware of the ways Indigenous data should be collected, protected, used, and shared in partnership and in accordance with the priorities of Indigenous communities, collectives, and organizations.

Initiative	Implementation Timeline	Responsibility

Initiative	Implementation Timeline	Responsibility
Provide general and specific Indigenous data management training compliant with OCAP and CARE data governance principles.	Phase 1 (1 year)	Library with support from RO, Indigenous internal and external stakeholders
In partnership with Indigenous scholars and community stakeholders, develop Indigenous Data Sovereignty and Governance resources that are available synchronously and asynchronously to researchers.	Phase 2 (2 years)	Library with support from RO, Indigenous internal and external stakeholders

Strategic Commitment #4: IT Infrastructure

Current State: IT infrastructure and services for research data management and assessment of researcher needs in development.

Objective: IT infrastructure and service (data storage, security, deposit, and preservation) for research data is managed and meets researcher needs.

Initiative	Implementation Timeline	Responsibility
A digital research data repository is available to researchers for data deposit, dissemination, and preservation upon completion of the research project.	Ongoing	Library
High performance computing available to researchers.	Ongoing	Library with support from TSC
Institutionally managed secure space for active data collection and collaboration, including space for sensitive or confidential data requirements, is available to researchers.	Ongoing	TSC with support from Library, RO
Preservation and backup storage space to maintain data integrity and access over time is available to researchers.	Phase 2 (2 years)	TSC with support from Library

Strategic Commitment #5: Executive Support

Current State: Executive committed to coordinate and prioritize RDM throughout the University. Analysis of costs for IT infrastructure and personnel complete.

Objective: Executive committed to coordinate and prioritize RDM throughout the University. Costs for IT infrastructure are covered. Long-term financial support for personnel.

Initiative	Implementation Timeline	Responsibility

Financial plan reflecting the known and expected costs related to developing a robust digital research infrastructure, including personnel.	Phase 1 (1 year)	Library, TSC
Governance plan outlining appropriate governance and consultation structure for overseeing the ongoing implementation of this UWRDMS.	Phase 1 (1 year)	RDM Committees and Working Groups

7.0 CONSULTATION & REVIEW

In April 2021, three consultation groups were formed to consult on the development of the UWRDMS: the RDM Executive Sponsor Committee (RDMESC), RDM Strategy Working Group and Academic Advisory Committee. The groups are comprised of members representing Departments across the University including: the Library, Research Office, Technology Solutions Centre, Information and Privacy Office, University Human Research Ethics Board, Graduate Studies, as well as researchers representing the Faculties of Arts, Science, Education, and the Gupta Faculty of Kinesiology and Applied Health.

The UWRDMS has been approved by the RDMESC, whose membership includes the Vice-President of Research and Innovation, Associate Vice-President of Research and Innovation, Chief Information Officer, Indigenous Academic Lead, Dean of the Library, Senior Information and Privacy Officer, and Research Data Management Librarian.

To support Strategy success and continued use of common practices in RDM at UWinnipeg, the UWRDMS will be reviewed on a three-year basis. This three-year cycle will ensure our approach to supporting RDM and data stewardship practices are consistent with evolving digital research infrastructure, government legislation, and funder/publisher policies and requirements. The RDMESC will oversee the ongoing implementation of this UWRDMS and the Strategy review process. The Research Management Librarian will facilitate this process, in consultation with internal and external stakeholders.

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[1] Government of Canada. (2021). *Tri-Agency Statement of Principles on Digital Data Management.* Retrieved from https://science.gc.ca/eic/site/063.nsf/eng/h_83F7624E.html
[2] The Government of Canada. (2021). *Digital Research Infrastructure.* Retrieved from https://ised-isde.canada.ca/site/digital-research-infrastructure/en
[3] The Government of Canada. (2021). *Frequently Asked Questions: The Tri-Agency Research Data Management* Policy. Retrieved from https://science.gc.ca/eic/site/063.nsf/eng/h_97609.html#1b
[4] The Government of Canada. (2021). *The Tri-Agency Research Data Management Policy.* Retrieved from https://science.gc.ca/eic/site/063.nsf/eng/h_97610.html