Research Data Management Strategy

Updated 28 February 2023

Summary

The Tri-Agency Research Data Management Policy requires OCAD U to develop and publish a public-facing RDM Strategy by March 1, 2023. The strategy articulates the ways OCAD University supports planning, storage, preservation and sharing of research data. It is intended to be a living document that will be updated over time.

Purpose/ Description:

In 2017, a Research Data Management (RDM) Task Force was initiated by staff from the Office of Research & Innovation (ORI), IT Services, and the Library to assess the current state of RDM needs and resources at OCAD University (OCAD U). On March 15, 2021, the Tri-Agency (CIHR, NSERC, and SSHRC) launched the Tri-Agency Research Data Management Policy. This policy requires OCAD U, as an institution that administers Tri-Agency funds, to develop and publish a public-facing RDM Strategy on the OCAD U website by March 1, 2023. This strategy articulates the ways OCAD U supports planning, storage, preservation and sharing of research data in ways that are best suited to the OCAD University research culture and compliant with the Tri-Agency RDM Policy.

The purpose of the OCAD U RDM Strategy is to support capacity development in, and the regular practice of, responsible RDM among OCAD U researchers. This strategy promotes the adoption of the FAIR Principles to make research data findable, accessible, interoperable, and reusable. The FAIR principles are complemented by the internationally endorsed CARE Principles for Indigenous Data Governance[1] (collective benefit, authority to control, responsibility, and ethics), and by the First Nations Information Governance Centre principles of OCAP® (ownership, control, access, and possession).

The Tri-Agency Data Management Policy states, "In line with the concept of Indigenous self-determination and in an effort to support Indigenous communities to conduct research and partner with the broader research community, the agencies recognize that data related to research by and with the First Nations, Métis, or Inuit whose traditional and ancestral territories are in Canada must be managed in accordance with data management principles developed and approved by these communities, and on the basis of free, prior and informed consent. This includes, but is not limited to, considerations of Indigenous data sovereignty, as well as data collection, ownership, protection, use, and sharing." OCAD U affirms Indigenous rights to data sovereignty and understands "that a

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[1] Carroll, S.R., Garba, I., Figueroa-Rodríguez, O.L., Holbrook, J., Lovett, R., Materechera, S., Parsons, M., Raseroka, K., Rodriguez-Lonebear, D., Rowe, R., Sara, R., Walker, J.D., Anderson, J. and Hudson, M., 2020. The CARE Principles for Indigenous Data Governance. *Data Science Journal*, 19(1), p.43. DOI: http://doi.org/10.5334/dsj-2020-043

distinctions-based approach is needed to ensure that the unique rights, interests and circumstances of the First Nations, Métis and Inuit are acknowledged, affirmed, and implemented."[2]

Benefits of sound RDM practices include:

- Compliance with applicable laws, regulations, contractual requirements, security policies, procedures, standards and controls including:
    - Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2, 2022)
    - Freedom of Information and Protection of Privacy Act (FIPPA)
    - Personal Health Information Protection Act
    - PCI (Payment Card Industry) Compliance
    - Bill C-42 Copyright Act and Bill-C-11 Copyright Modernization Act
    - Broader Public Sector Accountability Act
- Compliance with the requirements of certain grant funding opportunities
- Effective plans for storage, archiving, and appropriate disposal of research materials and research data
- Compliance with an increasing number of journals that require data deposit
- Open sharing of data, where appropriate
- Information security plans that protect research instruments and data from unwarranted access, compromise, and loss
- Information privacy plans that protect individuals and groups from unwarranted access

This document will be used by the Library, ORI, and IT Services when developing and reviewing services and policies. Other units will be consulted on an as-needed basis to support new or changing services and policies. As a strategy, it is intended to be a living document that will be updated over time, informed by evolving best practices in research data management and planning.

Scope: This strategy applies to research data management for all OCAD University faculty, students, and staff. It is specifically designed to address the management of research data, however, data collected for non-research purposes also requires sound data management practices as outlined in the Information & Data Classification Policy.

All members of the University community have a responsibility to protect the confidentiality, integrity, and availability of confidential data used, generated, accessed, modified, transmitted, stored or destroyed by the University.

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[2] Tri-Agency Research Data Management Policy

Definitions:

Abbreviations and terms used in this strategy are listed below.

1. the Alliance – Digital Research Alliance of Canada
2. DMP – Data management plan
3. ITS – IT Services
4. ORI – Office of Research & Innovation
5. SRC – Senate Research Committee
6. Research Data – 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 and/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.[3]
7. Research Data Management (RDM) – Data management refers to the storage, access and preservation of data produced from a given investigation. Data management practices cover the entire lifecycle of the data, from planning the investigation to conducting it, and from backing up data as it is created and used to long-term preservation of data deliverables after the research investigation has concluded. Specific activities and issues that fall within the category of data management include file naming conventions; data quality control and quality assurance; data access; data documentation (including levels of uncertainty); metadata creation and controlled vocabularies; data storage, data archiving and preservation; data sharing and reuse; data integrity; data security; data privacy; data rights; and notebook protocols (lab or field).[4]

Strategy and Timeline:

1. Raise awareness

The RDM Task Force is committed to an ongoing dialogue with stakeholders in the OCAD U community on the topic of RDM and the Tri-Agency funding requirements. This includes keeping informed on developments in RDM, continuing to listen to the concerns of researchers, and maintaining our support resources and materials. Key stakeholders such as academic leadership, researchers, and staff, are instrumental in promoting the value of RDM and can assist in outreach and communication. The Task Force is committed to pursuing knowledge-sharing activities such as invited talks, panel discussions, and workshops geared towards tackling the challenges of RDM - specifically to the ways in which they affect the art and design research creation community.

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[3] CASRAI. (2015). Research data. Retrieved from https://casrai.org/term/research-data/
[4] CASRAI. (2015). Research data. Retrieved from https://casrai.org/term/research-data/

RAISE AWARENESS				
Objectives	Ongoing Practices + Supports	Gaps and Resources Required	Timeline	Responsibility
Engage stakeholder communities on campus	RDM Task Force was formed in 2017 including staff from ORI, IT Services, and Library Services, communications with faculty and SRC have been ongoing	Requires funding support for coordinating event series (e.g. through SSHRC)	2023-24	ORI, IT Services, and Library Services
Develop Awareness Materials	Ongoing maintenance of OCAD U Research Data Management LibGuide and IT Knowledgebase material	N/A	Ongoing	Library, IT Services for respective guides
Participate in external RDM professional development opportunities	RDM Task Force has taken part in PD offered by OCUL and the Digital Research Alliance of Canada and is committed to acquiring knowledge of culturally appropriate best practices that may be developed alongside existing frameworks such as OCAP.	N/A	Ongoing	ORI, IT Services, and Library Services

2. Assess Institutional Readiness and define the ideal state for RDM

The OCAD U RDM strategy includes an assessment of institutional readiness. This includes identifying and reviewing the data landscape at OCAD U and assessing existing capacity for RDM while engaging in regular dialogue with our research community. In an ideal state for RDM the OCAD U research community is aware of existing supports, provided with up-to-date best practices, and provided with the best and most appropriate tools and technological supports available.

ASSESS INSTITUTIONAL READINESS				
Objectives	Ongoing Practices + Supports	Gaps and Resources Required	Timeline	Responsibility
Undertake a survey of RDM Needs Among OCAD U Researchers	RDM Task force circulated a survey to faculty: Understanding Research Data Management Needs Among OCAD U Researchers	Low response rate. Will require additional and ongoing engagement	Complete but requires further engagement Concerns raised in the responses will help shape future programming	ORI, IT Services, and Library Services

Review current institutional readiness	RDM Task force collaboratively completed a RDM Maturity Assessment Model in Canada (MAMIC) exercise to assess policy, IT, service, and financial readiness for RDM	Follow-up review recommended to be completed by 2025	Completed	ORI, IT Services, and Library Services
Review current policy environment	RDM Task force identified Acceptable Use and Data Classification policies as well as the Academic Misconduct Policy as relevant to RDM and potentially in need of being brought into alignment with the institutional RDM strategy	- Risk assessment outside of existing REB policies - Conduct Privacy Impact Assessment (as per Office of the Privacy Commissioner)	1-3 years	ORI, IT Services, Library Services, Administration, Privacy Office
Data management plans	Created library guide linking to Portage's DMP Assistant tool. DMP Assistant was described in the Conducting Creative Research workshop delivered in November 2021	Deep training from subject experts would benefit community	Ongoing	OCAD U Library
Data storage capacity	ITS [Storage Options Knowledgebase item](#) communicates our data storage options available to OCAD U researchers	Storage, and for some cases, long term preservation of culturally sensitive and large data sets remains a challenge	Ongoing	IT Services
Data repositories and archiving	OCAD U, as an OCUL institution, is a partner in Borealis, the Canadian Dataverse Repository, a bilingual, multidisciplinary, and secure Canadian research data repository, supported by academic libraries and research institutions across Canada	Borealis: The Canadian Dataverse Repository is available for OCAD U researchers. The RDM Task Force is committed to increase its awareness of repositories preferred by active participant communities who wish to self-manage their data	Ongoing	OCAD U Library

3. Formalize RDM practices

The Tri-Agency RDM Policy is not an open data policy, but it does state that "research data collected through the use of public funds should be responsibly and securely managed and be, where ethical, legal and commercial obligations allow, available for reuse by others"[5]. As such, it requires formalized RDM practices, as do other funding agencies, publishers, and the Tri-Agency Framework: Responsible Conduct of Research and the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022).

Several OCAD U policies contain requirements related to RDM, including:

7001 - Acceptable Use Policy (AUP)
7001 - Integrity in Research and Scholarship
7002 – Policy on Ethical Conduct in Research Involving Humans
7003 - Information & Data Classification Policy

To formalize responsible RDM practices, OCAD U will need to develop additional policies related to RDM. Some of these policies may be related to:

- Appropriate storage of research data with attention to sensitive categories including health data and data about, or belonging to, Indigenous communities
- Appropriate data storage practices in collaborative, multi-institutional research including with hospitals and other healthcare facilities, with private sector partners, and with other post-secondary institutions
- Data repositories including data quality and standards
- Data retention and long-term data preservation.

Regarding creating data management plans, the Library and ORI will document RDM supports available for researchers and the process researchers need to follow to confirm funding agency RDM requirements have been met. In addition, OCAD University may wish to develop policies related to unfunded research and student research.

Some gaps in policy can be filled by continuing to work with regional and national groups who are collaboratively developing resources, services, infrastructure, and policy related to RDM, and with those leading Indigenous Data Governance initiatives. Policy development is a long term goal that will be developed in partnership with various groups across campus.

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[5] Tri-Agency Research Data Management Policy