



RESEARCH DATA MANAGEMENT STRATEGY

JUNE 1, 2023

Prepared By:
The Research Data Management
Advisory Committee

Land Acknowledgement

Algonquin College campuses (Ottawa, Pembroke and Perth) are located on the traditional unceded, unsundered territory of the Anishinaabe Algonquin People. The Algonquin People have inhabited and cared for these lands long before today. We take this time to show our gratitude and respect to them, and to the land for all that it provides us: trees to give shade, water and food to sustain us and paths to connect us. As a post-secondary institution, we embrace the responsibility to help ensure that the next generations of land stewards are respectful and grateful for the bounty of this land on which we all live, work, play and study.

We commit to continue to explore and make meaningful contributions to the Calls to Action that resulted from the Truth and Reconciliation Commission of Canada.

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Introduction

In March 2021, Canada's top research granting agencies - 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), collectively known as the Tri-Agency, published a policy on research data management (RDM). It requires each post-secondary institution and research hospital eligible to administer Tri-Agency funds to create and publish an institutional RDM strategy and notify the agencies when completed.

In response to the release of this policy, Algonquin College appointed a RDM Advisory Committee (RDMAC). It includes representatives from the Applied Research Office (ARO, Director, Senior Program Managers and Research Operations & Ethics Officer), the Library (Manager and Librarian, Learning Resource Centre), Learning and Teaching Services (LTS, Indigenous Pedagogy Curriculum Consultant), Information Technology Services (ITS, Senior Privacy Specialist and Business Relationship Management Practitioner Lead) and the Research Ethics Board (REB, Chair). The RDMAC jointly created corporate RDM Policy RE10 and this institutional strategy.

The policy governs the processes of updating and implementing the strategy. Compared with the policy, the strategy is much more detailed and flexible and is relevant not only to the College's researchers, but also to external business and community partners. Both documents aim to support Algonquin's researchers and partners and achieve full compliance with the Tri-Agency RDM policy.

To accelerate the adoption and the implementation of our institutional strategy Algonquin College will:

- Encourage, promote and eventually mandate the best practices of RDM,
- Use knowledge dissemination, training and professional development for all constituents involved in applied research: students, faculty and administrators and business partners.
- Operationalize RDM support.
- Provide access to RDM-specific software tools, data storage and infrastructure.

Formulating the RDM strategy is a College-wide research community process. The RDM advisory committee looks forward to collecting ideas, feedback and insights from all constituents interested in transforming the College into a leading research institution based on solid RDM principles.

Fundamental Standards

RDM at Algonquin College is based on the following guiding standards.

Institutional support for researchers:

Algonquin College supports all its research constituents by providing adequate capacity, technological and organizational structure and specialized services. Algonquin College develops innovative, multi-disciplinary research portfolios involving many disciplines across engineering, trades, business and humanities. (Aligned with the Strategic Plan 2022-2025, Goal 1)

Research excellence:

At the institutional level, Algonquin College engages in applying data management practices that enhance creativity, good stewardship and ethical use of public funds and research project outcomes. RDM, founded on equity and diversity, is an essential part of research excellence that advances knowledge mobilization and strengthens economic and social impact. (Aligned with the Strategic Plan 2022-2025, Goal 1)

Industry- and community-oriented collaborations:

Algonquin College prioritizes collaborative, mutually beneficial research endeavors and relations involving government institutions, the private sector, not-for-profits and community-based organizations. (Aligned with the Strategic Plan 2022-2025, Goals 1 and 2)

Open access to research results:

Whenever possible, data acquired as a result of research inquiries should be open and widely accessible by other researchers and the public. In the next few years Algonquin College will commit to and will start following the “Fair Principles” of RDM - making data Findable, Accessible, Interoperable and Reusable. However, the College recognizes that IP rights and protections for our business partners, student researchers and faculty, and the privacy or research participants are considerations that can limit open access in certain situations.

Raising awareness, training and professional development (PD):

Supporting Algonquin researchers by providing appropriate resources and learning materials is essential in delivering effective RDM services. RDM champions at Algonquin College, such as the Applied Research Office (ARO), the Library and the Research Ethics Board (REB) are instrumental in helping to promote RDM best practices and DMP training throughout the research lifecycle.

Support for Indigenous rights:

Algonquin College recognizes the self-determination of Indigenous peoples and Indigenous rights as specified in “United Nations Declaration on the Rights of Indigenous Peoples”. The College prioritizes consultation, as well as free, prior and informed consent for any research conducted involving Indigenous peoples and communities. Algonquin College will respect and support the right of Indigenous peoples to control the collection, ownership and use of Indigenous data and traditional knowledge. The College will commit to raising constituents’ awareness of and support the use of the First Nations Principles of OCAP®, the Principles of Ethical Métis Research, Inuit Qaujmajatuqangit, and the CARE Principles for Indigenous Data Governance. (Aligned with the Strategic Plan 2022-2025, Goal 3)



Scope

The objective of this Institutional RDM strategy is to advance a culture where research data and its management is of vital importance.

This document applies to all Algonquin College researchers and external business- or community partners, who are involved in Tri-Agency funded research, regardless of academic discipline, program or project specifics. The category “College researchers” includes students, faculty members and administrative staff, no matter what their status is – full-time/part-time employees or volunteers. This definition is slightly narrower than the one provided in policy RE01: Research Administration, which does not differentiate projects in terms of sources of funding.

The main initial objective of this strategy is to ensure that all Tri-Agency funded researchers have proper support in place to facilitate their work and to guarantee maximal beneficial impact. In the longer term, this strategy will streamline the ubiquitous adherence to the best RDM practices on Algonquin’s campuses.

RDM Implementation Steps

To support the adoption of this strategy and institutionalize the use of best practices in RDM among researchers, Algonquin College will engage in various activities, planned over two time periods:

NEAR-TERM:

Starting in 2023, Algonquin will begin building essential RDM capacity. During this initial phase, the College will focus firmly on:

Developing awareness-raising activities and training:

- The ARO will post this strategy on their site and will link it to Library's RDM resource pages.
- The Library will keep these pages updated with new RDM-oriented training materials and will include a link back to this strategy.
- The Library will organize periodic training events and an annual RDM workshop.
- ARO will create professional development (PD) for faculty and staff.
- ARO and Library staff will be available for consultations and during set office hours.

Set up support of operations:

During the initial stage of our transition towards RDM compliance, a reuse of human resources will be the most feasible way to operationalize RDM. Current employees of the Library and the ARO will oversee and operationalize the RDM-related activities during the initial phase of the process.

Provide support for RDM-specific IT tools and infrastructure:

Algonquin College will provide researchers access to the specialized data repository Borealis – “The Canadian Dataverse Repository”. The Library and the ARO will share the subscription fees. Researchers will also have access to the Data Management Plan (DMP) Assistant software tool, once this Tri-Agency requirement comes into effect. ARO staff will provide IT admin support, aligned with ITS standards which adhere to IT best practices, and training related to these tools.

Indigenous research and RDM:

Algonquin College will consult Indigenous peoples and communities to better understand how to approach best practices for Indigenous research data management, Indigenous data sovereignty and ethical practices of research with Indigenous peoples, communities, and Nations. A guiding document, as well as a template research agreement, will be developed on how to adopt practices for respectful engagement of Indigenous research. This broad category includes research in any field or discipline that is conducted by, grounded in or engaged with First Nations, Inuit and/or Métis peoples, lands, communities, societies or individuals, and their cultures, experiences or knowledge systems, as expressed in their dynamic forms, past and present.

Equity, Diversity, Inclusion (EDI) and RDM:

All researchers at Algonquin College are signatories of the NSERC's "Equity, Diversity and Inclusion Dimensions Charter". The research community at Algonquin will foster a culture committed to this charter's principles and objectives.

Ethical aspects of RDM:

In 2021 the Federal Government's Panel on Research Ethics published "Guidance on Depositing Existing Data in Public Repositories". This document elaborates ethical aspects of the Tri-Agency RDM policy. The REB will implement these recommendations in their project application approval process.

MEDIUM-TERM:

During this phase of the policy implementation, The College will continue to flexibly adapt our RDM practices to any new or updated requirement published by the Tri-Agency.

Training and awareness-raising activities:

- The Library and the ARO will continue to disseminate and integrate new original or third-party RDM resources.
- The non-stop training process will continue with a new focus: serving the evolving needs of Algonquin researchers and satisfying the new requirements of each specific Tri-Agency funding program as they emerge.
- Periodic workshops for all research constituents will be organized by the Library.
- ARO will make available and regularly update PD resources for faculty and staff. This process will be ongoing.
- Instructional video series will be posted and recommended as a self-guided PD in RDM.

IT infrastructure and data governance:

ITS will provide oversight of RDM data within technology solutions for the RDM initiative. The ARO, ITS and REB will jointly recommend the best approach for acquiring, preserving and reusing sensitive data within project-specific contexts.

Implement domain- and context-specific RDM practices:

As an institution, Algonquin College recognizes the fact that distinct research domains have different RDM needs. Algonquin will promote flexible RDM model that is adaptable to, and considers, the specificity of each research domain, e. g. multi-disciplinary projects, human-centric studies, etc.

Seek new partnership opportunities with Indigenous communities and related support organizations, or institutions of public government, such as the Nunavut Impact Review Board (NIRB). Proactively adapt the institutional RDM practices to the evolving needs of these communities.

Relevant Materials

INTERNAL CORPORATE POLICIES:

[RE10: Research Data Management](#)

[AD01: Administration of College Policies](#)

[AA31: Algonquin College Library](#)

[RE01: Research Administration](#)

[RE02: Integrity in Research and Scholarly Activities](#)

[RE03: Research Involving Human Subjects](#)

[RE05: Intellectual Property](#)

[RE07: Academic Freedom Rights and Responsibilities](#)

[IT01: Information Security](#)

[HR24: Inclusion and Diversity](#)

EXTERNAL RESOURCES:

The following is a set of useful resources referred to in this strategy text above.

[RDM - Research Data Management \(RDM\) - Subject Guides at Algonquin College \(libguides.com\)](#)

[Tri-Agency Research Data Management Policy](#)

[Tri-Agency Framework: Responsible Conduct of Research](#)

[Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 \(2022\)](#)

[Borealis – The Canadian Dataverse Repository](#)

[DMP Assistant Tool](#)

[Digital Research Alliance of Canada](#)

[Roadmap for Open Science. Office of the Chief Science Advisor](#)

[Fair Principles](#)

[The First Nations Principles of OCAP®](#)

[CARE Principles for Indigenous Data Governance](#)

[Bill C-15: An Act respecting the United Nations Declaration on the Rights of Indigenous Peoples](#)

[First Nations Information Governance Centre](#)

[Principles of Ethical Métis Research](#)

[National Inuit Strategy on Research](#)

[United Nations Declaration on the Rights of Indigenous Peoples](#)

[Inuit Qaujimajatuqangit | Nunavut Impact Review Board \(nirb.ca\)](#)

[Guidance on Depositing Existing Data in Public Repositories](#)

[Equity, Diversity and Inclusion Dimensions Charter](#)

[Free Online Training on Data Handling Practices](#)



Future Steps

This institutional strategy is an evolving document and the RDM Advisory Committee will annually review and update it, according to researchers' feedback and future Tri-Agency requirements. The process of updating this strategy is defined in corporate policy RE10.

APPENDIX

Action Plan:

Year	Goals	Actions	Responsibility
One	Initiate the process of achieving institutional RDM readiness	• Update and expand the RDM Resources pages maintained by the Library	Library
		• Engage all researchers in awareness raising RDM training activities	Library
		• Develop PD course in RDM for faculty and staff	ARO
		• Set up initial support of operations	ARO
		• Provide guidance on data governance for RDM-specific practical tools and infrastructure	ITS
		• Subscribe Algonquin to the Borealis repository service	ARO
		• Train ARO managers and support staff to use the DMP Assistant software tool	ARO
		• Begin the practice to assure DMPs are added to applications for grants that explicitly require these plans	ARO
		• Develop a guiding document on Indigenous research ethical protocols and principles	ARO
		• Apply for the “Research Data Management Capacity Building Initiative” SSHRC grant	ARO
Two	Accelerate the adoption of prevalent RDM culture across the campuses	• Review and revise the institutional RDM strategy as required	RDMAC
		• Periodically update and diversify the training events and workshops offered both online and in-person	Library
		• Regularly participate in any future consultations around RDM organized by the Tri-Agency, other PSE institutions or non-profits, such as the Digital Research Alliance of Canada	ARO
		• Streamline the technical administrative support for the Borealis data repository	ARO
		• Train faculty researchers to use the DMP Assistant	ARO
		• Develop Indigenous research agreement template	LTS
		• Submit CSEP applications for student jobs supporting RDM operations	ARO
Three	Regularly adapt the existing RDM practices to new or updated Tri-Agency requirements	• Update and realign this strategy with the evolving requirements of each Tri-Agency grant type	RDMAC
		• Ensure annual updates are made to all training and PD resources to assure they agree with the current RDM requirements	RDMAC
		• Assess options for hiring dedicated RDM support staff	RDMAC
		• Identify and address any remaining gaps in College’s overall RDM compliance	RDMAC
		• Evaluate any new external funding opportunities to support the growth of College’s RDM capacity	ARO
		• Explore and encourage the adoption of research-domain specific RDM practices	RDMAC
		• Explore embedding essential RDM training and awareness into academic programs and in-class project courses	RDMAC

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