

Georgian College Research Data Management Strategy 2023-2028

This work is adapted from Institutional RDM Strategy Template Revision Working Group (2021).

Introduction

Georgian College is committed to innovative collaboration as demonstrated in our [Strategic Plan 2022-2024](#). We do this by encouraging a connected community that supports research, entrepreneurship, economic development and social innovation.

By engaging in research activities, the college is supportive of the Tri-Agencies Research Data Management Policy (RDM) that was released in March 2021. Like the Tri-Agencies, Georgian College encourages all research associated with the college to meet,

“The highest professional and disciplinary standards, domestically and internationally. These standards support research excellence by ensuring that research is performed ethically and makes good use of public funds, experiments and studies are replicable, and research results are as accessible as possible” (Government of Canada, 2021a, para. 2).

There are three main components of the Tri-Agencies policy which Georgian will implement. These include:

- Institutional strategies (March 1, 2023)
- Data management plans (DMP) (for Tri-Agencies funded research in spring 2022; other institutional research TBD)
- Data repository and guidelines (TBD) (Government of Canada, 2021a)

The college will need to demonstrate these components to be eligible for Tri-Agencies funding. However, moving forward, best practices learned from these funded research opportunities will be shared to our larger college research community to use in their practice.

Georgian’s RDM strategy will focus on the following priorities

- Building a RDM culture at the college
- Supporting researcher capacity through resources and mentoring of data management practices
- Establishing a data repository for publicly funded research associated with the college and private funded research at the discretion of the researcher

Importance of research data and research data management:

Conducting research involves many different phases. These phases are often referred to as the data lifecycle that consist of the following: plan, create, process, analyze, disseminate, preserve and reuse (Portage Network, 2020). It's important for researchers to be able to "organize, store, access, reuse and build upon digital research data" and this is often referred to as research data management (RDM) (Government of Canada, 2021b, para. 8). Research data is defined as "primary sources supporting research, scholarship or artistic endeavors" (Portage Network, 2020, p. 1). *"RDM is essential to Canadian researchers' capacity to securely preserve and use their research data throughout their research projects, reuse their data over the course of their careers and, when appropriate, share their data"* (Government of Canada, 2021b, para. 8).

Research data should be transparent *and if "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"* (Government of Canada, 2021a, para. 3). It's essential for research integrity as it provides confidence in the data itself along with analysis of the data. This is a common practice amongst many academic journals. This transparency can be beneficial for researchers, stakeholders and the community. The benefits to researchers include: minimization project mistakes; helps find data; allows for continuation of research or replication/reproduction (Canadore College, 2022).

The Tri-Agency RDM policy builds off the importance of the Fair Principles for scientific data management and stewardship. These guidelines improve the Findability, Accessibility, Interoperability and Reuse of digital assets. "The principles emphasize machine-actionability (i.e., the capacity of computational systems to find, access, interoperate, and reuse data with none or minimal human intervention) because humans increasingly rely on computational support to deal with data as a result of the increase in volume, complexity, and creation speed of data" (GO FAIR International, n.d., para. 1).

Good RDM practices recommend the use of data management plans (DMP). It involves researchers making a formal plan to document how they intend to collect, document, store, share, and preserve research data (Digital Alliance of Canada, n.d. b). These plans are used internationally and are "increasing[ly] required by institutions and funders" including Tri-Agency funded projects (Digital Alliance of Canada, n.d. a, p./para. 2).

Scope:

This strategy applies to all Georgian researchers, faculty, staff, students and partners involved in public and Georgian funded research projects. Our primary focus will be to ensure that all researchers involved in Tri-Agency funding have the resources and tools to support their work before rolling out to the broader Georgian community. This strategy does not apply to institutional and corporate research at the college that collects, analyzes, reports and stores data about students, faculty, staff, and curriculum.

Oversight and review:

The five-year RDM Strategy will be overseen by an RDM committee and reviewed on an annual basis. The strategy will be revised every five years or as needed due to provincial or federal requirements.

Georgian's Research and Innovation department will serve as the main point of contact for both the committee and researchers.

The RDM Committee will meet frequently throughout the academic year to implement and monitor the RDM Strategy. The committee will set annual priorities and provide an annual report to the VP Academic. It will be composed of the following college stakeholders:

- Research and Innovation
- Office of the VP Academic
- Institutional Research
- Library
- Georgian College Research Ethics Board (REB)
- Indigenous liaison
- Equity, Diversity, Inclusion and Belonging (EDI&B)
- Centre for Teaching and Learning (CTL)
- Centre for Changemaking and Social Innovation
- Legal and Risk Management
- Various departments involved in research

Institutional support:

Our RDM Strategy will focus on the following institutional supports to support in Georgian's adoption of the strategy and practices. Over the next five years, the college will continue to expand services and increase resources where possible.

- Build a RDM culture at the college
 - RDM governance: This strategy will establish an RDM governance at the college that will be overseen by the RDM Committee. This committee will create and maintain institutional policy & procedure to support the RDM strategy and daily work.
 - data management policies
 - privacy
 - copyright
 - open access
 - repository
 - RDM communications and culture: This strategy will raise awareness of RDM at the college through various communication means: building an RDM focused webpage and SharePoint page along with other internal communications
- Support researcher capacity through resources and mentoring of data management practice
 - RDM resources and tools: This strategy provides and/or supports access to RDM tools, resources, and infrastructure such as:

- repository storage for data deposit,
 - data management planning tools,
 - curation support,
 - tools for discovery and access.
- RDM support: This strategy will provide training resources for researchers in various formats
- Establish a data repository for publicly funded research associated with the college and private funded research at the discretion of the researcher

Collaborators:

Georgian College recognizes the following collaborators key to the success of the RDM Strategy:

- Research and Innovation
- Institutional Research
- Library
- Information Technology
- Georgian College Research Ethics Board (REB)
- Indigenous liaison
- Equality, Diversity, Inclusion and Belonging (EDI&B)
- Centre for Teaching and Learning (CTL)
- Centre for Changemaking and Social Innovation
- Legal and Risk Management
- Marketing, Communications and Relations
- Various departments involved research

Ethical Considerations:

Equity, diversity, inclusion and belonging (EDI&B) is a strategic priority at Georgian. We're committed to fostering a learning and working environment where everyone feels seen, heard, valued, and knows they belong through demonstrable, accountable and system-wide commitments to diversity, decolonization, anti-racism, equity and inclusion. This priority is extended to our research activities. Therefore, this strategy recommends the community-based methodology where "research is conducted with and not on, members of the community" (Strand et al., 2003, p. xxi). Community-based research (CBR) encourages these important characteristics for successful research: mutual respect and trust; commitment to long-term, sustainable relationships; flexibility; built on existing strengths of the community; and methodological rigor and sound ethical practices (PAN, n.d.).

Research projects involving human participants are reviewed by Georgian College Research Ethics Board. This committee requests information on RDM strategies for data collection and management in applications. The Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans- TCPS 2 (2022) (Government of Canada, 2022) is available to researchers.

Indigenous data considerations:

Georgian College has made Indigenization a priority and aims to enrich our college community through the meaningful integration of Indigenous ideas, values, peoples, knowledges, and procedures. Our Indigenization strategy includes the following six overarching priorities: Truth and Reconciliation; leadership; representation; community engagement; curriculum and pedagogy; and cultural enrichment. Interwoven in our approach to Indigenization is the recognition that Indigenous people are the primary decision-makers regarding matters related to Indigenous focused research and data collection.

Georgian will comply with the First Nations Principles of ownership, control, access and possession (OCAP). This “is a tool to support strong information governance on the path of First Nations data sovereignty” (First Nations Information Governance Centre [FNIGC], n.d., para. 1). The principles capture guidelines on how indigenous data should be “collected, protected, use and shared” (FNIGC, n.d., para. 1) highlighting that First Nation, Metis, Inuit and other indigenous communities have control over how data is collected and stored.

The college also recommends Chapter 9 of TCPS- 2 (Government of Canada, 2022) as a resource for researchers. This chapter contains research considerations involving Indigenous Peoples.

The college will work towards college produced research guidelines with Indigenous Peoples.

Other relevant strategies and policies

The college will ensure RDM alignment to appropriate strategies and policies through consultation with other policy holders and updating documentation. Georgian recognizes the following strategies and policies that relate to RDM.

- Copyright
- Intellectual Property
- Privacy
- Freedom of Information FIPPA – what are the guidelines for FOI and Research;
- Information Practice Policies
- Acceptable Use Policies
- Research Ethics Board Policy
- Georgian College Strategic Plan
- Georgian College Indigenization Plan
- Georgian College EDI&B Strategy
- Georgian College Research, Innovation and Entrepreneurship Strategic Plan

Definitions:

Community-based research- research that is “conducted with and not on, members of the community” (Strand et al., 2003, p. xxi). CBR encourages these important characteristics for successful research:

mutual respect and trust; commitment to long-term, sustainable relationships; flexibility; built on existing strengths of the community; and methodological rigor and sound ethical practices (PAN, n.d.).

Data Management Plan (DMP)- a formal plan to document how they intend to collect, document, store, share, and preserve research data (Digital Alliance of Canada, n.d. b).

Data repository- a database that collects, manages and stores data sets for data analysis

FAIR- The guidelines that improve the Findability, Accessibility, Interoperability and Reuse of digital assets (GO FAIR International, n.d.).

OCAP- OCAP stands for ownership, control, access and possession. The principles capture guidelines on how indigenous data should be “collected, protected, use and shared” (FNIGC, n.d., para. 1) highlighting that First Nation, Metis, Inuit and other indigenous communities have control over how data is collected and stored.

Research data- Research data is defined as “primary sources supporting research, scholarship or artistic endeavors” (Portage Network, 2020, p. 1).

Research data management- Research data management (RDM) refers to the processes applied through the lifecycle of a research project to guide the collection, documentation, storage, sharing and preservation of research data (Government of Canada, 2021b).

Timelines

Georgian’s RDM Strategy will be implemented on March 1, 2023. The five-year RDM Strategy will be overseen by an RDM committee and reviewed on an annual basis. The strategy will be revised every five years or as needed due to provincial or federal requirements.

Looking ahead:

Georgian is looking forward to growing our RDM culture and community at the college. We will use our learnings from researchers involved in Tri-Agency funding to build our resources and tools to support RDM before rolling out the strategy to the broader Georgian community.

Resources

Canadore College. (2022, December 16). *Building a shared understanding of RDM* [Video]. YouTube. https://www.youtube.com/watch?v=66oNv_DJuPc&t=5s

Digital Alliance of Canada. (n.d.a). *DMP Assistant*. <https://alliancecan.ca/en/services/research-data-management/dmp-assistant>

Digital Alliance of Canada. (n.d.b). *Research data management*. <https://alliancecan.ca/en/services/research-data-management>

First Nations Information Governance Centre. (n.d.). *The First Nations principles of OCAP*. <https://fnigc.ca/ocap-training/>

GO FAIR International. (n.d.). *FAIR principles*. <https://www.go-fair.org/fair-principles/>

Government of Canada. (2021a, March 15). *Tri-Agency research data management policy*. <https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/research-data-management/tri-agency-research-data-management-policy>

Government of Canada. (2021b, October 29). *Tri-Agency research data management policy - Frequently asked questions*. <https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/research-data-management/tri-agency-research-data-management-policy-frequently-asked-questions>

Government of Canada. (2022). *Tri-Agency policy statement: Ethical conduct for research involving humans- TCPS 2 (2022)*. https://ethics.gc.ca/eng/policy-politique_tcps2-eptc2_2022.html

Institutional RDM Strategy Template Revision Working Group. (2021). *Institutional research data management strategy development template (Version 3.0)*. Digital Research Alliance of Canada. <https://doi.org/10.5281/zenodo.5745906>

PAN. (n.d.). *What is community-based research?* <https://paninbc.ca/research-and-evaluation/what-is-cbr/>

Portage Network. (2020, August 25). *Research data management*. <https://zenodo.org/record/4000999#.Y5C5OHbMK73>

Strand, K. J., Cutforth, N., Stoecker, R., Marullo, S., & Donohue, P. (2003). *Community-based research and higher education: Principles and practices*. John Wiley & Sons.