

Research Data Management Strategy February 2023

INTRODUCTION

In March 2021, Canada's federal 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) launched the <u>Tri-Agency Research Data Management (RDM) Policy</u> which aims to support Canadian research excellence by promoting sound RDM and data stewardship practices. The policy includes three requirements:

- **Institutional RDM strategies:** each postsecondary institution and research hospital eligible to administer Tri-Agency funds is required to create an institutional RDM strategy and make that strategy publicly available on the institution's website by March 1, 2023.
- Data management plans (DMPs): all grant proposals submitted to the agencies should include methodologies that reflect best practices in RDM, and the Agencies will require DMPs for certain funding opportunities.
- **Data Deposit:** grant recipients must deposit all digital research data, metadata and code that directly support the research conclusions in journal publications and pre-prints that arise from agency-supported research into a digital repository.

This version of GBC's RDM strategy is focused on activities during the period of March 2023 to March 2026 and will be updated as the college continues to develop and implement relevant institutional policies, processes, and practices. This strategy has been created in accordance with the requirements of the Tri-Agency RDM Policy and aligns with Strategy 2026, Vision 2030, and ongoing broader institutional initiatives related to data governance and data management.

IMPORTANCE OF RESEARCH AND RESEARCH DATA MANAGEMENT

GBC's Strategy 2026: A Roadmap to the Future highlights research and innovation as a key strategic priority. We believe that college-led research is vital for social and economic progress and growth. Research and innovation at GBC empower our employees, students and partners to take part in economically and educationally meaningful projects and collaborations that enhance local innovation and community well-being.

RDM supports the effective and responsible conduct of research and increases the ability to store, find and utilize research data. As one of Canada's top research colleges, GBC is committed to establishing best practices for RDM in alignment with the goals and objectives of the Tri-Agency. GBC will work towards fostering a robust environment for data management

across all of our research and innovation programs, and ensuring that GBC researchers are well positioned to contribute to and capitalize on data-intensive science and scholarship.

SCOPE

This strategy applies to all GBC researchers, including students, faculty and employees in all disciplines across all of our academic and research programs. GBC will strive to enable a broad application of RDM best practices for all research and innovation stakeholders. To ensure compliance with the Tri-Agency RDM Policy, initial focus will be placed on providing Tri-Agency funded researchers with the tools and resources required to establish RDM best practices.

OVERSIGHT AND REVIEW

The Associate Vice-President, Research & Innovation will oversee the implementation of this strategy, in coordination and collaboration with the Provost and Vice President, Information Technology and Digital Innovation. This strategy will be updated on an annual basis. Annual reporting on progress will be provided to the Senior Leadership Team.

INSTITUTIONAL SUPPORT

To support RDM strategy adoption and continued sue of best practices in RDM among researchers, GBC will focus on the following strategic priorities and activities:

- Awareness raising: develop and implement a communications plan and disseminate information about RDM to the GBC community
- **Promoting and supporting RDM practices:** leverage existing tools, training and professional development resources to help researchers and research administrators develop required knowledge and skills related to RDM
- Enhanced approaches to data governance and data management: align with the development and implementation of GBCs Data Governance Policy and Procedures; ensure that institutional practices and standards include and reflect RDM requirements

STAKEHOLDERS

Key institutional RDM stakeholders at GBC include:

- Academic Services and Learning Resources
- Information Technology Services
- Institutional Research
- Office of Anti-Racism, Equity and Human Rights Services
- Office of General Legal Counsel
- Office of Indigenous Initiatives
- Office of Research & Innovation
- People & Culture
- Policy & Records Management
- Research Ethics Board
- Strategy & Planning

- Teaching and Learning Exchange
- External industry and community partners

GBC is currently in the process of developing strategic direction and guidelines related to data governance and data management. As part of that work, the college will develop an engagement strategy to ensure that stakeholders are aware of and contributing to best practices in data governance and management in general, and RDM specifically.

ETHICS CONSIDERATIONS

The GBC Research Ethics Board is responsible for reviewing the ethical acceptability of all research involving humans conducted within the jurisdiction or under the auspices of GBC. This applies to all GBC employees or students, regardless of where research is conducted, in accordance with the <u>Tri-Council Policy Statement: Ethical Conduct for Research Involving</u> <u>Humans – TCPS2 (2022)</u> (TCPS). Additional resources related to research ethics are available via the Office of Research & Innovation.

INDIGENOUS DATA CONSIDERATIONS

GBC will comply with The First Nations principles of Ownership, Control, Access, and Possession (OCAP®), which establish how First Nations' data and information is collected, protected, used or shared. GBC will also ensure alignment with <u>Chapter 9</u> of the Tri-Council Policy Statement (TCPS, 2022) which outlines ethical principles for research involving First Nations, Métis and Inuit people.

Recognizing the unique interests, priorities and circumstances of First Nations, Métis and Inuit people and communities, GBC is committed to taking a distinctions-based approach to Indigenous data considerations. GBC's Office of Research & Innovation will consult with GBC's Office of Indigenous Initiatives to ensure that Indigenous data are managed in culturally acceptable ways.

OTHER RELEVANT STRATEGIES AND POLICIES

This strategy intersects with the following <u>GBC policies</u>:

- Academic Integrity Policy
- Acceptable Use Policy
- Accessibility for Ontarians with Disabilities (AODA) Policy
- Conflict of Interest Policy
- Copyright Policy
- Employee Codes of Conduct
- Intellectual Property Policy
- Information Technology Policy
- Privacy Policy
- Research Ethics Policy

As part of the college's policy review cycle, the policies above will be reviewed and updated as needed to ensure alignment with this strategy.

This strategy also intersects with the following external policies:

- <u>Tri-Agency Research Data Management Policy</u>
- Tri-Agency Framework: Responsible Conduct of Research
- <u>Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans</u>

DEFINITIONS

Data Management Plan (DMP): A formal statement describing how research data will be managed and documented throughout a research project and the terms regarding the subsequent deposit of the data with a data repository for long-term management and preservation. (CoData, 2022)

Distinctions-based approach: The work of forming renewed relationships based on the recognition of rights, respect and co-operation, and partnership must reflect the unique interests, priorities and circumstances of First Nations, Métis and Inuit people and communities. <u>https://www.justice.gc.ca/eng/csj-sjc/principles-principes.html</u>

Metadata: Literally, "data about data"; data that defines and describes the characteristics of other data, used to improve both business and technical understanding of data and data-related processes. (CoData, 2022)

Research: A systematic investigation to establish facts, including the input data, the code, and the full software environment that produced the research results. (CoData, 2022)

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. (CoData, 2022)

Research Data Management (RDM): The processes applied through the lifecycle of a research project to guide the collection, documentation, storage, sharing and preservation of research data. RDM supports the effective and responsible conduct of research and increases the ability to store, find and reuse research data. (Tri-Agency Research Data Management, 2022)

Ownership, Control, Access, and Possession (OCAP®): First Nations principles that establish how First Nations' data and information will be collected, protected, used, or shared. OCAP® asserts that First Nations have control over data collection processes, and that they own and control how this information can be used. https://fnigc.ca/ocap-training/

TIMELINES

This strategy is focused on activities during the period of March 2023 to March 2026 and will be updated as the college continues to develop and implement relevant institutional policies, processes, and practices.

LOOKING AHEAD

Recognizing that RDM is a new consideration for college researchers in Canada, we are still in the early stages of developing best practices related to this area of work. This version of the RDM strategy aligns with GBC's Strategy 2026 and the college's corresponding Research & Innovation Plan. Future plans for RDM will continue to evolve in alignment with Tri-Agency requirements, college resources and related initiatives, and the evolution of GBC's Research & Innovation portfolio.

CONTACT INFORMATION

Inquiries about GBC's RDM strategy can be directed to research@georgebrown.ca.

REFERENCES

Digital Research Alliance of Canada (formerly Portage Network)

First Nations Information Governance Centre

International Science Council Committee on Data (CoData)

Tri-Agency Research Data Management