JOHN ABBOTT COLLEGE
RESEARCH DATA MANAGEMENT STRATEGY

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Strategy to manage the research data lifecycle to ensure proper preservation and reuse.

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Introduction

After many consultative efforts with the public and various stakeholders, the Federal tri-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), released its Tri-Agency Research Data Management (RDM) Policy in March 2021.

This Policy takes into consideration already existing published federal policies on data management, such as Tri-Agency Open Access Policy on Publications (2015), CIHR's Health Research and Health-Related Data Framework (2017), Tri-Agency Framework: Responsible Conduct of Research, the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans—TCPS 2 (2018), and the agencies' Setting new directions to support Indigenous research and research training in Canada 2019-2022 (2019).

Tri-Agency Research Data Management (RDM) Policy

What prompted the creation of the Tri-Agency Research Data Management (RDM) Policy? The Federal tri-agencies "believe 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."

Research Data Management

What is Research Data Management? As defined by Digital Research Alliance of Canada, RDM is a method used "throughout the lifecycle of a research project to guide the collection, documentation, storage, sharing, and preservation of research data, and allows researchers to find and access data."

John Abbott College

Since John Abbott College opened in 1971, it has been a significant part of English post-secondary education in Quebec and a pillar in the Sainte-Anne-de-Bellevue community. Today, the College caters to over 6500 day-students and more than 2000 Continuing Education students from Québec, Canada and abroad. John Abbott College offers a wide range of career and pre-university programs specifically designed to give students the necessary tools to succeed in society.

John Abbott College supports research and innovation through various internal entities and supporting administrative infrastructure. Internal supporting committees include our Research Ethics Board and Innovation, Research and Development Committee. Internal supporting services include our Research Office, Library, and Data Mining unit. Internal supporting policies and procedures include our *INSTITUTIONAL RESEARCH & INTELLECTUAL PROPERTY POLICY* and Survey Procedure. John Abbott College's experts in the areas of research administration, research ethics, survey methodology, and data protection collaborate to support research and innovation pursuits and projects. John Abbott College

believes that research and innovation enhance college students' learning experience, engage employees in new developments in their fields and contribute to regional development.

This RDM strategy is evergreen; it will be continually updated and revised.

RDM Strategy

As John Abbott College further develops its RDM strategy, we recognize data as an important research output and will need to continue to better understand the following concepts and the differences between them:

1. data management planning
2. active data storage,
3. data deposit into repository storage,
4. long-term preservation storage,
5. data access and sharing,
6. data retention,
7. data and metadata quality and standards,
8. privacy, ethical and intellectual property considerations,
9. sensitive data considerations, and
10. Indigenous data sovereignty considerations.

As our strategy evolves we will continue to support our researchers in bettering their RDM within the established policies such as of the Tri-Agencies: Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – 2nd edition, the Tri-Agency Framework: Responsible Conduct of Research. As defined by in our Policy 16, a researcher is "any person conducting and/or directing a research project. Where a research project is being conducted by a team, the principal investigator is the individual who is responsible for the direction and administration of the research project."

Awareness of RDM and Training on RDM

John Abbott College will endeavor to raise awareness of RDM and to provide guidance in the form of 1) this strategy, 2) Policy 16 Intuitional Research and Intellectual Property), and training on RDM, including Data management plans and FAIR Principles:

- Data management plans include information such as the type of date, the format, proper recording/filing, version control, readability, interpretability, backing of data, preservation, and long-term access.
- A free, bilingual tool called DMP Assistant, from the Digital Research Alliance of Canada and University of Alberta, is readily available to support researcher with their DMPs.
- The FAIR Principles guide the researcher and research community to improve the Findability, Accessibility, Interoperability, and Reuse of digital assets.

A training platform on RDM will be curated internally- including pertinent policies, guides, templates, videos, etc. Guidance will be provided to researchers and will be available throughout the research cycle- including any grant preparation that includes data management plans. Each academic year, a training session on RDM will be offered in conjunction with John Abbott College's internal research and innovation administrative infrastructure, REB, IRDC, and Research Office.

Indigenous communities' ownership of research data

An integral underpinning of our strategy will be the recognition of the ownership of research data by Indigenous communities in RDM, as outlined in The First Nations Principles of OCAP® ("how information will be collected, protected, used, or shared") and the Federal Tri-Agencies' College and Community Innovation Guide for research involving Indigenous Peoples and communities. Our Dean of Indigenous Education will be consulted on this strategy. We will also investigate providing The First Nations Principles of OCAP® training for REB, IRDC, and Research Office members.

Research Data Management Best Practices

The importance of proper RDM to all staff, faculty, and students, will be highlighted via internal committee meetings, such as our REB and IRDC, and internal communications, such as internal Web messaging and in conjunction with our Data Mining unit.

John Abbott College is committed to forming a Community of Practice to investigate RDM best practices; institutional resources, data storage capacity/technologies, expertise, and polices/procedures. Intersections of resources will be mapped to find synergies and potential deficits. This COP will explore how to provide access to data repository services and will be responsible for drafting any internal policies on RDM.

Summary

John Abbott College's strategy to manage the research data lifecycle to ensure proper preservation and reuse will continue to develop as we formulate our RDM best practices. These best practices will include increasing awareness of RDM through outreach and deepening our collective knowledge of RDM through training and discourse.

Appendix A

Definitions

Data are facts, measurements, recordings, records, or observations collected by researchers and others, with a minimum of contextual interpretation. Data may be in any format or medium taking the form of text, numbers, symbols, images, films, video, sound recordings, pictorial reproductions, drawings, designs or other graphical representations, procedural manuals, forms, diagrams, workflows, equipment descriptions, data files, data processing algorithms, software, programming languages, code, or statistical records. (Tri-Agency Research Data Management Policy - Frequently Asked Questions)

Data management plan is a formal plan describing how research data will be managed and documented throughout a research project; specifically outline how the data will be deposited in a data repository for long-term management and preservation. Adapted Research Data Management Terminology - CODATA, The Committee on Data for Science and Technology

Data Lifecycle includes the stages of data, from creation to destruction, from management and preservation, for the use and reuse of data. Should include: plan, create, process, analyze, disseminate, preserve, and reuse. (Adapted from Alliance-Portage)

Data storage means files and documents that are created digitally are stored in a storage system for future use. Data storage may take place on physical hard drives, disk drives, USB drives, or virtually in the Cloud. Adapted from Alliance Research Data Repositories 101 – Module 6 – Learn @ Scholars Portal)

FAIR Principles are a set of guidelines to help make research data Findable, Accessible, Interoperable and Reusable (adapted from Alliance Research Data Repositories 101 – Module 6 – Learn @ Scholars Portal)

OCAP® is a registered trademark of the First Nations Information Governance Centre (FNIGC). It refers to Ownership, Control, Access and Possession. (Adapted from: First Nations Information Governance Centre Understanding OCAP®).

Research Data Management refers to the processes applied through the lifecycle of a research project to guide the collection, documentation, storage, sharing and preservation of research data. (Adapted from: Tri-Agency RDM Policy FAQ)

Research Data Repositories preserve, manage, and provide access to many types of digital materials in a variety of formats. Materials in online repositories are curated to enable search, discovery, and reuse. There must be sufficient control for the digital material to be authentic, reliable, accessible and usable on a continuing basis. Common types of repositories include General, Discipline-specific, Open, and Source code." Alliance Research Data Repositories 101 – Module 6 – Learn @ Scholars Portal