Research Data Management Strategy 2023-2025

Office of Creative Activity, Research and Scholarship (CARS)

CAPILANO UNIVERSITY

Contents

Honouring the Territories

The Capilano University (CapU) Research Data Management Strategy has emerged respectful of the university's regional context on the unceded territories of the Líl̓wat, xʷməθkʷəy̓əm (Musqueam), shíshálh (Sechelt), Skwxwú7mesh (Squamish), and Səl̓ílwətaʔ/Selilwitulh (Tsleil-Waututh) Nations, and our ongoing commitment to the Indigenization and decolonization of our creative activity, research, and scholarship (CARS) practices. We recognize and respect the sovereignty of these First Nations and all Indigenous nations in matters regarding their data.

Background

PURPOSE

The CapU Research Data Management Strategy outlines three focus areas for the university as it grows its capacity to support research data management. The strategy fulfils the university's institutional obligation as described in the Tri-Agency Research Data Management Policy.

SCOPE

The research data management strategy outlines actions at CapU for the period 2023-2025. This time frame aligns with the next iterations of Envisioning 2030 and Illuminating 2030 and the forthcoming release of additional university direction such as the Indigenous Framework, a digital learning framework, and a digital transformation plan.

*Note that this strategy only applies to *research data* and does not apply to institutional data collected for quality assurance or teaching purposes.

OVERSIGHT

The Associate Vice President of Creative Activity, Research and Scholarship & Graduate Studies provides institutional oversight for the CapU Research Data Management Strategy and reports to the Vice President Academic & Provost.

PROCESS

Development of this strategy began in 2022 with a series of interviews, conversations, and workshops led and driven by university researchers. In addition, the Academic Leadership Council, Capilano Faculty Association, Centre for Teaching Excellence, Indigenous Education & Affairs, IT Services, Research Ethics Board, and campus and academic units and committees provided valuable input.

CapU Library also participated in a cross-institutional network of small BC post-secondary institutions for information sharing and strategy development support.

This strategy was developed by the Scholarly Communications and Copyright Librarian under the leadership of the Associate Vice President of Creative Activity, Research and Scholarship & Graduate Studies.

Tri-Agency Research Data Management Policy

In 2021, Canada's federal research funding agencies launched the [Tri-Agency Research Data Management Policy](), outlining the phased introduction of three research data management requirements:

1. Institutional strategies
2. Data management plans
3. Data deposit

Institutional strategies

By March 1, 2023, institutions eligible to administer Tri-Agency funding are required to create and post (on their website) their institutional strategy for research data management.

Data management plans

By spring 2022, the Tri-Agencies will be considering researchers' data management plans in the adjudication process for certain grants. This Tri-Agency requirement will be incrementally implemented over the next few years.

Data deposit

As a condition of various Tri-Agency funding opportunities, researchers will be encouraged to deposit their data in a data repository. This requirement will be phased in once the Tri-Agencies have reviewed the readiness of the Canadian research community.

The Tri-Agency Research Data Management Policy should not be confused with an open data mandate. Determining if, and which, research data should be made open should be guided in context by ethical and legal considerations, disciplinary norms and community responsibilities.

Envisioning research data management

In alignment with the goals expressed in Envisioning 2030 and Illuminating 2030 and *Framework and Strategic Research Plan for 2022-2024*, CapU commits to supporting faculty, staff, students and partners in implementing research data management protocols that are aligned with established standards and developed in consultation with research partners and communities.

As a regional learning-focused teaching university, research activities at CapU contribute to the university experience of students, faculty, and staff, and benefit local and global communities. The university acknowledges the importance of research data as a research output and recognizes that research data management enhances accountability, transparency, and sustainability in the research process. The development of institutional processes for research data management at CapU enables researchers to conduct ethical, meaningful, and respectful research as described in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022). It also reflects the university's commitment to weaving the principles of human rights, diversity, inclusion, equity, and accessibility in research (CapU Policy B.512).

CapU acknowledges the importance of Indigenous data sovereignty and is taking active steps towards the Indigenization and decolonization of institutional practices, as informed by the forthcoming CapU Indigenous Framework, CARE Principles for Indigenous Data Governance, First Nations Principles of OCAP®, Inuit Qaujimajatuqangit, Six Principles of Métis Health Research, the Truth and Reconciliation Commission of Canada's Calls to Action, and the United Nations Declaration on the Rights of Indigenous Peoples. These documents express Indigenous peoples' desire for research to actively benefit Indigenous communities. David Kirk, CapU Indigenous Faculty Advisor & Instructor and Tzeachten Nation member, shares: *"Protecting Indigenous knowledge is tied directly to our beliefs of respect and protection of information for future generations. It's about stopping the appropriation of sacred knowledge, culture, or art for financial gain that doesn't benefit First Nation communities."* As a university operating on the unceded and sovereign territories of the Líl̓wat, xʷməθkʷəy̓əm (Musqueam), shíshálh (Sechelt), Skwxwú7mesh (Squamish), and Səl̓ílwətaʔ/Selilwitulh (Tsleil-Waututh) Nations, the university commits to guiding researchers in grounding their data management practices in a distinctions-based approach when handling data about or from Indigenous nations, including data on natural resources and lands and associated metadata.

Capacity-building

The following three focus areas outline the activities that the university will undertake in the next two years (2023-2025) to promote the importance of research data management and support researchers in their efforts to establish and implement a best-practice approach to research data management:

1. Awareness and education

2. Sustainable and effective infrastructure

3. Governance

FOCUS 1: AWARENESS AND EDUCATION

CapU researchers participate in a wide range of creative activity, research, and scholarly activities and bring different expertise and familiarity with research data management. This strategic area focuses on identifying and supporting communication and learning needs in partnership with faculty, staff and students engaged in creative activity, research, and scholarship.

Build awareness about research data management:

- Develop and implement a communications plan to ensure CapU researchers understand the new Tri-Agency research data management requirements and promote the importance of research data management to faculty, staff, students, and research partners

- Recognize and celebrate existing internal collaborations and continue to facilitate connections between CapU researchers and research teams to enhance internal capabilities

- Collaborate with the Research Ethics Board to promote wider awareness of broad consent and research data practices while maintaining the distinct roles of the Research Ethics Board and research data management in the research process

- Share guidelines for data reusability such as the FAIR principles, while highlighting that a distinctions-based approach for First Nations, Métis, and Inuit data is needed as described in the CARE Principles for Indigenous Data Governance, First Nations Principles of OCAP®, Inuit Qaujimajatuqangit, and Six Principles of Métis Health Research

Mobilize learning opportunities for faculty, staff and students:

- Gather input and perspectives from the research community to determine learning needs and identify relevant internal and external learning opportunities

- Create and maintain a guide on established best practices in research data management

- Support current and potential Tri-Agency-funded researchers in fulfilling grant requirements by providing support in creating data management plans and exploring discipline-specific options for data deposit, storage, retrieval, and discovery

- Offer internal learning opportunities in a variety of ways to enable greater participation, for example:

    o Targeted training for emerging and early career researchers

    o Establishing a data champions program

    o Ongoing technical and administrative support for researchers

- Facilitate learning about Indigenous data sovereignty, CARE Principles for Indigenous Data Governance, First Nations Principles of OCAP®, Inuit Qaujimajatuqangit, and Six Principles of Métis Health Research (in response to the Truth and Reconciliation Commission of Canada's Call to Action #65)

- Connect researchers to external training opportunities through organizations such as the Digital Research Alliance of Canada and First Nations Information Governance Centre

- Partner with departments and schools, the Library, and the Centre for Teaching Excellence to support faculty teaching research data management in research courses

FOCUS 2: SUSTAINABLE AND EFFECTIVE INFRASTRUCTURE

This strategic area focuses on providing access to the tools, services, physical and virtual spaces, and resources that researchers need to embed research data management into their research practices. It also includes ensuring that student researchers have access to needed resources for their research and learning.

Identify and leverage existing internal supports:

- Promote existing internal resources to manage data throughout the research data lifecycle (e.g., collect, store, analyze, manage, share, and access), such as enterprise-licensed software, equipment loans, and secure data storage

- Identify intersections with existing services and initiatives in IT, the Library, the Educational Technology Advisory Committee, and other relevant campus units to best use available resources

- Work with researchers, IT Services, and relevant campus units to identify and prioritize tool, service, space, and sharing needs and investigate how to make these available in a scaled and sustainable way

- Investigate internal and external funding opportunities for staffing, development, and institutional access to research data management tools and resources

- Build flexibility into processes to allow researchers and their research partners to access and meaningfully engage with data, especially when working with Indigenous and other marginalized communities, drawing from community-led documents such as Research 101: A Manifesto for Ethical Research in the Downtown Eastside and local understandings of the CARE Principles for Indigenous Data Governance, First Nations Principles of OCAP®, Inuit Qaujimajatuqangit, and Six Principles of Métis Health Research

- Provide guidance and advice to faculty in establishing processes that allow student researchers to manage their data throughout the data lifecycle

Draw on external partnerships:

- Leverage collaboration, participation, and membership in cross-institutional, provincial, and national research data management initiatives and communities

- Guide researchers in using external data repositories while exploring collaborative options for a local data repository that comply with guidelines in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022)

- Facilitate sharing (when appropriate) of research data between CapU and partner organizations securely and in accordance with disciplinary-, culturally- and community-specific best practices

- Collaborate with research partners in academic, non-profit, and for-profit organizations to implement best practices compatible with research data management policies, contractual commitments, funder requirements, and industry standards

FOCUS 3: GOVERNANCE

This focus area keeps people and communities at the forefront of the strategy. It describes the stewardship of research data management at CapU and the university's role in creating and sustaining an institutional culture that supports research data management.

- Protect and uphold academic freedom and faculty and staff employee rights as outlined in the CFA and MoveUP Collective Agreements, university policies and procedures, and the BC Human Rights Code

- Strengthen relationships and engage in respectful and meaningful consultation with the Líl̓wat, xʷməθkʷəy̓əm (Musqueam), shíshálh (Sechelt), Skwxwú7mesh (Squamish), and Səl̓ílwətaʔ/Selilwitulh (Tsleil-Waututh) Nations with the understanding that this work takes place on their unceded and sovereign territories

- Affirm CapU's institutional commitment to best practices in research data management to CapU researchers and support them in understanding and meeting their responsibility to care for and share their data, aligning with equity, accessibility, and decolonization in research practices

- Determine and allocate appropriate staff and resources to carry out the actions outlined in this strategy and enable development of future strategies

- Draw on the expertise of existing internal committees and groups to inform priorities and directions (e.g., Academic Leadership Council, Indigenous faculty discussion group, Senate Teaching and Learning Committee)

- Collaborate with the Research Ethics Board to maintain best practices in ethical research involving human data

- Ensure ongoing compliance with applicable privacy and security policies and legislation

- Refresh the strategy as future strategic research plans, Indigenous Framework, a digital learning framework, and a digital transformation plan are released

Contact

Questions and feedback about the CapU Research Data Management Strategy should be directed to the Associate Vice President of Creative Activity, Research, and Scholarship & Graduate Studies (cars@capilanou.ca) and Scholarly Communications and Copyright Librarian (library@capilanou.ca)

Acknowledgements

The Office of Creative Activity, Research, and Scholarship and the Library would like to thank the many CapU researchers and learners who contributed to the creation of this strategy.

This strategy document builds upon information shared by the Tri-Agency, Digital Research Alliance of Canada, First Nations Information Governance Centre, Global Indigenous Data Alliance, GO FAIR, Inuit Qaujimajatuqangit Division, Métis Centre at National Aboriginal Health Organization, Research 101: A Manifesto for Ethical Research in the Downtown Eastside authors, and Small Post-Secondary Institutions of BC Working Group.

Appendix

DEFINITIONS

Adapted from the Tri-Agency Research Data Management Policy:

Data management plan

A data management plan (DMP) is a living document, typically associated with an individual research project or program that consists of the practices, processes and strategies that pertain to a set of specified topics related to research data management and curation. DMPs should be modified throughout the course of a research project to reflect changes in project design, methods, or other considerations.

Data deposit

"Data deposit" refers to when the research data collected as part of a research project are transferred to a research data repository. The deposit of research data into appropriate repositories supports ongoing data retention and, where appropriate, access to the data. Ideally, data deposits will include accompanying documentation, source code, software, metadata, and any supplementary materials that provide additional information about the data, including the context in which it was collected and used to inform the research project.

Metadata

"Metadata" are data about data—data that define and describe the characteristics of other data. There are many metadata standards (often referred to as "schemas") guiding how to treat metadata, and they vary greatly across disciplines. However, metadata generally state who created the data and when, and include information on how the data were created, their quality, accuracy and precision, and other features necessary to enable discovery, understanding and reuse.

Research data

Research data are used as primary sources to support technical or scientific enquiry, research, scholarship, or creative practice, and can be used as evidence in the research process and/or are commonly accepted in the research community as necessary to validate research findings and results. Research data may be experimental data, observational data, operational data, third party data, public sector data, monitoring data, processed data, or repurposed data. What is considered relevant research data is often highly contextual, and is typically guided by disciplinary norms.

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.