# **University of Prince Edward Island** Research Data Management Strategy



Images (clockwise): Sunny Hartwig, Associate Professor, Biomedical Sciences; Josh McFadyen, Canada Research Chair in Geospatial Humanities, Associate Professor, ACLC; Nadia Bressan, Assistant Professor, Sustainable Design Engineering; Greg Doran, Professor, Theatre Studies.

The land on which the UPEI community gathers is the traditional and ancestral territory of the Mi'kmaq People. We acknowledge the original custodians of this land and give thanks to the Elders – those in the spirit world who came before us and gave us the teachings of life; those here today, who preserve stories and traditions and guide us as knowledge keepers; and those who are Elders in the making. We are mindful and respectful that our research may take us into the territories of other Indigenous peoples.

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## Purpose of this Strategy

The purpose of this Research Data Management (RDM) Strategy is to document UPEI's readiness to support researchers and research data management through its lifecycle, from planning, dissemination and publication where appropriate, to preservation and secure storage to reflect the value of the data and its importance to UPEI and its community of stakeholders.

This strategy also addresses the requirements of the <u>Tri-Agency Research Data</u> <u>Management Policy</u> which lists a set of requirements that institutions eligible to administer Tri-Agency funds must meet including:

- 1. The creation and publication of an institutional research data management strategy.
  - a. This strategy document will address this requirement when published.
- 2. Researchers are required to integrate Data Management Plans (DMPs) into their funding applications.
  - a. UPEI's <u>data platform</u> facilitates the creation of DMPs that researchers can use for this purpose along with guidance for completing a plan. We recognize that researchers may need additional support and/or resources to complete this activity.
- 3. Researchers will be required to deposit their data aligned with Tri-Agency requirements. The Tri-Agency plans to phase this requirement in and recognizes that while there may be constraints, "the agencies expect researchers to provide appropriate access to the data where ethical, cultural, legal and commercial requirements allow".
  - a. UPEI's <u>data platform</u> includes a deposit option for researchers to publish or privately archive their data as appropriate. Published research data is assigned a persistent identifier (DOI) to aid in discovery and citation.

### Importance of Research Data and Research Data Management

The University of Prince Edward Island (UPEI) is committed to identifying and implementing strategies that maximize the full potential of UPEI researchers' research results and expertise, and UPEI's research impact. Its 2018-2023 Strategic Plan identifies a number of goals and supports focused on research and researchers at UPEI. Some key goals identified in the plan include:

- identify strategic investments needed to keep pace with innovative and integrative technologies that support teaching, research, scholarship, and the UPEI Robertson Library's many core functions within the academy and community
- identify and implement strategies that maximize the full potential of UPEI researchers' research results and expertise, and UPEI's research impact
- encourage the use and consideration of Indigenous ways of knowing to complement western forms of knowledge and scholarship within UPEI research and graduate programs
- further develop an integrated scholarship and research culture at UPEI that informs teaching, encourages curiosity, discovery, and self-expression
- enhance institutional supports to assist researchers in effectively identifying and pursuing research funding, and developing research expertise

UPEI's recently released *Strategic Research Plan (2023 – 2028)* includes 3 objectives: 1) fostering and celebrating research excellence; 2) developing talent for impactful research; and 3) strengthening outreach and community partnerships. The plan includes actions to ensure wide dissemination of research outputs, learning resources for researchers, training of graduate students, and providing opportunities for engaging undergraduates in research among other activities. These goals are aligned with our RDM strategy. Senate recently approved an updated <u>Open Access and Dissemination of Research Output</u> that recognizes the importance of research data and incorporates language related to data management planning and data deposit.

In response to Tri-Agency's announced requirements, the Vice-President Academic and Research formed an Institutional Research Data Management Strategy Working Group comprised of stakeholders from across the University including the Associate Vice-President, Research and Dean of Graduate Studies, Faculty Members, Research Services representatives, a Research Ethics Board representative, an Access to Information and Privacy Office representative, an Information Technology Systems and Services representative, and Robertson Library representatives.

## Indigenous Data Sovereignty

UPEI is committed to advancing reconciliation through higher education. The new Faculty of Indigenous Knowledge, Education, Research, and Applied Studies (IKERAS) brings Indigenous knowledge and ways of doing to the forefront of the University, positioning UPEI as the role model for all universities to achieve decolonization and benefit from Indigenous knowledge. UPEI recognizes "that data related to research by and with the First

Nations, Métis, or Inuit whose traditional and ancestral territories are in Canada must be managed in accordance with data management principles developed and approved by these communities, and on the basis of free, prior and informed consent"<sup>1</sup>. In addition, UPEI researchers engaged in research with Indigenous peoples need to review, understand, and comply with the information in "Chapter 9: Research Involving the First Nations, Inuit, and Métis Peoples of Canada" in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022)<sup>2</sup>.

### Indigenous Data and Data Management Plans (DMP)

UPEI researchers are expected to follow the guidance and good practices related to DMPs where "... research conducted by and with First Nations, Métis and Inuit communities, collectives and organizations" the *Tri-Agency Research Data Management Policy* states "DMPs must be co-developed with these communities, collectives and organizations, in accordance with RDM principles or DMP formats that they accept. DMPs in the context of research by and with First Nations, Métis and Inuit communities, collectives and organizations for renegotiation of the DMP."<sup>3</sup>

### Indigenous Data and Data Storage

The Tri-Agency Research Data Management Policy also addresses data storage and access with regards to Indigenous data. "For research conducted by and with First Nations, Métis and Inuit communities, collectives and organizations, these communities, collectives or organizations will guide and ultimately determine how the data are collected, used and preserved, and have the right to repatriate the data. This could result in exceptions to the data deposit requirement."<sup>4</sup>

<sup>4</sup> Government of Canada. (2021). *Tri-Agency Research Data Management Policy*.

<sup>&</sup>lt;sup>1</sup> Government of Canada. (2021). *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

<sup>&</sup>lt;sup>2</sup> Panel on Research Ethics. (2022). "Chapter 9: Research Involving the First Nations, Inuit, and Métis Peoples of Canada", *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022).* https://ethics.gc.ca/eng/tcps2-eptc2\_2022\_chapter9-chapitre9.html

<sup>&</sup>lt;sup>3</sup> Government of Canada. (2021). *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

https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/research-data-management/tri-agency-research-data-management-policy

### Indigenous Data and Research Ethics

UPEI's Research Ethics Board is responsible for administering the approval process for using human participants in research at the University of Prince Edward Island. All research involving human participants conducted by faculty, staff or students affiliated with UPEI or involving UPEI faculty, staff or students as participants must be approved by the <u>UPEI Research Ethics Board</u>. The Research Ethics Board is responsible for ensuring that UPEI is compliant with external research ethics guidelines and requirements. All UPEI researchers are expected to adhere to Chapter 9: Research Involving the First Nations, Inuit, and Métis Peoples of Canada of the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022)*. In addition, where Indigenous data collection is concerned, there are two Indigenous Research Ethics Boards on Prince Edward Island.

The L'nuey and Mi'kmaq Confederacy of PEI Research Ethics Board is an independent body that reviews all research proposals which involve the two Prince Edward Island First Nations, on and off-Reserve, to determine ethical implications and decide whether additional actions need to be taken to assure the safety and rights of participants, as well as eliminate redundant or unnecessary research studies<sup>5</sup>. Additional details are available through their website<sup>6</sup> where guidance and research ethics forms are available.

The Native Council of Prince Edward Island "protects the rights of non-status, urban Aboriginal islanders, ensuring their needs are respected and met". The NCPEI Research Advisory Committee (NRAC) has developed guidance for researchers and an application process that are available on their website<sup>7</sup>.

UPEI is currently in the early stages of discussing how best to engage with Indigenous communities on Prince Edward Island.

## Scope of this Strategy

This strategy applies to all members of the University involved in research, in any capacity whatsoever. The goal is to support the UPEI research community with the required systems, services, and support to facilitate best practices in research data management.

<sup>&</sup>lt;sup>5</sup> L'nuey and Mi'kmaq Confederacy Research Ethics Board. (2021). *Terms of Reference*. https://mcpei.ca/wp-content/uploads/2021/12/Lnuey-and-MCPEI-Research-Ethics-Board-TOR-29-Oct-202 1.pdf

<sup>&</sup>lt;sup>6</sup> (2023). *Resources*. <u>https://mcpei.ca/resources/</u>

<sup>&</sup>lt;sup>7</sup> Native Council of Prince Edward Island. (2023). *Research Ethics*. https://ncpei.com/research/

## **Guiding Principles**

- 1. UPEI recognizes the importance of research data and that standards for RDM among the disciplines can differ.
- 2. UPEI supports the *Tri-Agency Statement of Principles on Digital Data Management*<sup>8</sup> and the <u>FAIR (Findable, Accessible, Interoperable, and Reusable) principles</u> to ensure we apply best practices throughout the data management lifecycle from planning to publication to preservation. UPEI commits to supporting research at UPEI through robust training, tools, and services.
- UPEI recognizes the importance of Indigenous data sovereignty, <u>OCAP</u> (Ownership, Control, Access, and Possession) principles and <u>CARE principles for Indigenous data</u> <u>governance</u><sup>9</sup>.
- 4. Data management planning may be new to some UPEI researchers and we are committed to collaborating with UPEI researchers to ensure they understand their responsibilities and the campus supports available to them to follow these practices.

<sup>&</sup>lt;sup>8</sup> Government of Canada. (2021). Tri-Agency Statement of Principles on Digital Data Management. <u>https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/research-data-management/tri-agency-statement-principles-digital-data-management</u>

<sup>&</sup>lt;sup>9</sup> CARE stands for the following: Collective Benefit, Authority to Control, Responsibility, and Ethics.

## The Strategy

### Goal 1: Build RDM awareness and competencies

OBJECTIVES	MILESTONES/METRICS	STRATEGIES
Raise RDM awareness.	<ul> <li>By the end of September 2023, UPEI research community informed about Tri-Agency requirements related to research data management plans and data deposit.</li> <li>Publicize RDM services available at UPEI.</li> <li>RDM Champions stories/testimonials shared.</li> <li>RDM@UPEI session provided for UPEI researchers.</li> <li>UPEI has communicated with other research-affiliated organizations on PEI to ensure awareness of UPEI's research policies and procedures.</li> </ul>	<ol> <li>Utilize UPEI's researcher listserv to message researchers regarding RDM requirements and associated supports.</li> <li>Identify RDM Champions (e.g. those who have deposited data) and share their RDM stories.</li> <li>Host a gathering for researchers to share updates regarding the strategy.</li> <li>Feature an RDM session as part of Research on Tap.</li> <li>Collaborate with other research-affiliated organizations on PEI (eg. Health PEI, NCPEI, L'nuey, etc.) to share our processes and practices.</li> </ol>
Develop RDM competencies.	• Curated list of relevant RDM training resources available on	1. Review existing RDM training resources that are openly

	<ul> <li>data.upei.ca.</li> <li>Reuse/adapt partner-developed RDM learning resources.</li> <li>RDM webinars and learning opportunities shared with UPEI researchers.</li> <li>Provide an in-person/hybrid workshop two times a year that focuses on RDM best practices.</li> <li>Provide a workshop on managing sensitive data.</li> </ul>	<ul> <li>licensed for reuse.</li> <li>2. Collaborate with the Digital Research Alliance of Canada, CAAL and other RDM-affiliated partners to offer virtual / in-person RDM-related training.</li> <li>3. Work with the UPEI's Teaching and Learning Centre and subject matter experts to develop self-directed RDM learning opportunities (micro-creds) for students and faculty.</li> <li>4. Coordinate with ACENET consultant to deliver RDM best practices workshops.</li> <li>5. Connect with SIDR staff to draw on their expertise with sensitive data.</li> </ul>
Promote local and external RDM services.	<ul> <li>UPEI's data.upei.ca site is relaunched and promoted for data deposit and DMP creation.</li> <li>A guide to RDM services @UPEI available on data.upei.ca.</li> <li>Researchers are aware of SIDR's services and capabilities.</li> <li>Webinars provided for DMP Assistant and FRDR.</li> </ul>	<ol> <li>Feature data.upei.ca on UPEI researcher listserv and in campus notices.</li> <li>Provide researchers with an overview of UPEI services.</li> <li>Provide methods for SIDR staff to connect with the UPEI researcher community.</li> <li>Connect with the Digital Research Alliance of Canada to host a webinar for UPEI-related</li> </ol>

		to the RDM services they offer.
Recognize best practices in research data management.	<ul> <li>Update the University Research Award to include criteria that recognize excellence in RDM by the end of 2023.</li> <li>Host a celebration of research data created at UPEI.</li> <li>In 2024, an award will be presented to a UPEI researcher.</li> </ul>	<ol> <li>Work with VPAR/AVP Research to update the criteria of the award.</li> <li>Solicit nominations and applications.</li> </ol>

### Goal 2: Ensure institutional policies and supports align with RDM

OBJECTIVES	MILESTONES/METRICS	STRATEGIES
Review existing policies for alignment with RDM best practices.	<ul> <li>By end of April 2024, policy gaps have been identified.</li> </ul>	<ol> <li>Review existing institutional policies and practices that impact RDM.</li> </ol>
Incorporate EDI into RDM.	<ul> <li>Researchers have completed training in fairness and equity in research participation.</li> <li>Growing recognition by researchers that equity, diversity, and inclusion should be integrated into data collection, analysis, and dissemination of</li> </ul>	<ol> <li>Seek ongoing feedback from researchers to improve the integration of RDM into their research workflows.</li> <li>Provide researchers with learning opportunities and guidance when engaging with marginalized communities.</li> </ol>

	<ul> <li>results.</li> <li>RDM Advisory Committee includes diverse representation.</li> <li>EDI Champion identified for the RDM Advisory Committee.</li> <li>Clear pathways for undergraduate and graduate students to engage in RDM are made transparent .</li> </ul>	3. Provide researchers with training and resources to improve integration of EDI into data collection, analysis, and dissemination.
Develop respectful relationships with Indigenous communities.	<ul> <li>Identify and review institutions with established policies and practices that have established Indigenous research programs.</li> <li>Develop institutional policies, agreements, and guidelines in collaboration with Indigenous communities.</li> <li>Meet and engage with Indigenous communities to ensure our practices are aligned with their practices and expectations.</li> <li>Provide training on Indigenous data sovereignty.</li> </ul>	<ol> <li>Host a sharing event that features speakers from Cape Breton University, Memorial University, and Dalhousie University along with their Indigenous partners about their approach to research with community and the management of data.</li> <li>Ensure all researchers have reviewed Chapter 4 – Fairness and Equity in Research Participation of the <i>Tri-Council</i> <i>Policy Statement: Ethical Conduct</i> <i>for Research Involving Humans –</i> <i>TCPS 2 (2022).</i></li> <li>Work with stakeholders to develop a list of resources and protocols relevant to UPEI</li> </ol>

		<ul> <li>researchers and community.</li> <li>4. Host a community-centered learning opportunity for researchers wanting to collaborate with community.</li> <li>5. Ensure researchers engaged in research with Indigenous communities have the opportunity to learn about the First Nations Principles of OCAP.</li> </ul>
Identify and report on existing RDM infrastructure and services.	<ul> <li>By December 2023, an "RDM Service Catalogue" is created for researchers to connect them with the people, services, and tools to facilitate RDM and is available on data.upei.ca.</li> <li>Report generated highlighting campus RDM activity and identifying gaps by end of April 2024.</li> <li>A curated list of available "research software" is available on data.upei.ca by end of December 2023.</li> <li>References to material on data.upei.ca are added to the ITSS intranet site where appropriate.</li> </ul>	<ol> <li>Library, ITSS, SIDR, Research Services to collaborate on developing a shared services catalogue (e.g. RDM training, DMP creation, data deposit, DOI minting, data preservation, access to datasets, local, cloud and sensitive data storage, etc.)</li> <li>Annually a report is provided to the AVP-Research with service metrics, staffing, and resource allocations.</li> <li>Obtain from ITSS a list of research-related software (e.g. SPSS, R, Minitab, Lime Survey, etc.) that is licensed or otherwise available to researchers.</li> </ol>

Integrate the inclusion of a DMP in all grant applications where applicable.	<ul> <li>DMPs are included as part of the grant application process by the end of April 2024.</li> <li>A list of DMP exemplars are provided on data.upei.ca by end of December 2023.</li> </ul>	<ol> <li>Research Services will consult with staff and stakeholders to review existing procedures and how best to integrate DMPs with grant applications.</li> <li>Curate a list of DMP exemplars on data.upei.ca from sources such as DMP Assistant, Digital Research Alliance of Canada, etc.</li> </ol>
Integrate the inclusion of a DMP as part of the REB process.	<ul> <li>DMPs are included as part of the REB submission process by end of April 2024.</li> <li>A list of DMP exemplars are provided via data.upei.ca by end of December 2023.</li> </ul>	<ol> <li>The Research Compliance Coordinator will consult with REB members and research stakeholders to develop an approach for integrating DMPs into the REB process.</li> <li>Provide references to DMP <u>Assistant exemplars</u> and those developed by the <u>Digital</u> <u>Research Alliance of Canada</u> and others as appropriate.</li> </ol>
Research projects include a member that is responsible for RDM.	• PI's with substantial research grants have identified a team member to act as the lead on RDM for the project.	<ol> <li>Consult with previous PI's to understand their RDM practices with their research group to help inform policy development.</li> </ol>

### Goal 3: Develop a sustainable institutional RDM framework

OBJECTIVES	MILESTONES/METRICS	STRATEGIES
Establish an RDM Advisory Committee.	• By the end of December 2023, an RDM Advisory Committee is established with Terms of Reference and Membership.	1. VPAR/AVP Research to draft ToR and membership.
Monitor ongoing developments in RDM.	<ul> <li>RDM-associated support units report updates to the RDM Advisory Committee.</li> <li>A list of RDM-related activities, both past and upcoming, is available on data.upei.ca.</li> </ul>	<ol> <li>Units involved in supporting RDM receive and share communications from consortia, associations, listservs, or other groups related to RDM.</li> </ol>
Review staffing supports for RDM.	<ul> <li>Units report on staffing resources allocated to RDM support to inform staffing recommendations.</li> <li>Fund an internship/co-op placement annually in support of RDM services.</li> <li>Submit Budget requests as required.</li> </ul>	<ol> <li>Units supporting RDM (Library, Research Services, ITSS, SIDR) evaluate whether the current staffing complement is able to support RDM requirements effectively.</li> <li>Develop an internship and recruit candidates from MLIS and similar programs in Canada.</li> <li>Review the ACENET consultant's role in supporting RDM at UPEI.</li> </ol>

Review infrastructure supports for RDM.	<ul> <li>Annual reporting on RDM platform, storage usage/capacity, and security by units supporting RDM infrastructure and posted to data.upei.ca.</li> <li>Submit Budget requests as required.</li> </ul>	<ol> <li>Units supporting RDM infrastructure evaluate whether the current infrastructure meets the RDM institutional and funding requirements effectively.</li> <li>Evaluate potential regional and national collaborations to expand available infrastructure</li> </ol>
Review RDM support services and training for RDM.	<ul> <li>Survey researcher community to ensure we are providing the necessary RDM training and services.</li> <li>Update curated list of training material annually on data.upei.ca.</li> </ul>	<ol> <li>Establish a feedback mechanism/survey related to RDM training/learning materials and services.</li> <li>Leverage relevant training materials developed by others.</li> </ol>

### Implementation, Oversight and Review

The Institutional Research Data Management Strategy Working Group (IRDMSWG) will provide a draft implementation plan to the Vice President Academic and Research that can be used to distribute tasks derived through this process. Likewise, the newly envisioned RDM Advisory Committee will provide a centralized hub for governance, campus feedback and recommendations for the ongoing stewardship of the strategy. The Working Group anticipates that members would be derived from Research Services, ITSS, Library, SIDR, and faculty, along with undergraduate and graduate student representation. Embedded within the strategy is a monitoring of the RDM environment and ongoing internal reviews and reporting related to policy, staffing, infrastructure, and training.

## **Strategy Development Process**

The Vice-President Academic and Research formed the IRDMSWG comprised of stakeholders from across the University including the Associate Vice-President, Research and Dean of Graduate Studies, Faculty Members, Research Services, Research Ethics Board, Access to Information and Privacy Office, Information Technology Systems and Services, and Robertson Library. Members included:

- Margaret Augustine (Faculty Member IKERAS)
- Dr. Joshua MacFadyen (Faculty Member ACLC and CRC)
- Kim Mears (Librarian)
- Donald Moses (University Librarian)
- Stephanie Palmer (Research Compliance Coordinator)
- Mary-Ann Standing (Research Manager and Director, SIDR, Centre for Health and Community Research)
- Maria Steele (Manager, Research Services)
- Dr. Marva Sweeney-Nixon (AVP Research; Dean of Graduate Studies)
- Blair Vessey (Associate Chief Information Officer, ITSS)
- Patti Wheatley (Chief Access to Information & Privacy Officer; EDI Officer)

As part of its process, the IRDMSWG utilized the RDM Maturity Assessment Model in Canada<sup>10</sup> to generate discussions, to assess UPEI's current state of RDM support, identify gaps and utilize that information to inform this draft institutional research data management strategy. This draft plan has been shared with the Research Advisory Committee for feedback and will go to Senate for information. Communications about research data management requirements and supports will be shared through a variety of communication channels to ensure researchers are informed and supported.

#### **Document Versioning**

- Version 1.0 Draft August 2023
  - Initial draft strategy shared with IRDMSWG.
- Version 1.1 Draft September 2023
  - Draft that incorporates feedback from IRDMSWG.

<sup>&</sup>lt;sup>10</sup> Fry, Jane, Dearborn, Dylanne, Farrell, Alison, Khair, Shahira, & Ripp, Chantal. (2021). RDM Maturity Assessment Model in Canada (MAMIC) (1.0). Zenodo. <u>https://doi.org/10.5281/zenodo.5745493</u>

## Appendix A: Definitions

These definitions are derived from the *Tri-Agency Research Data Management Policy* - *Frequently Asked Questions*<sup>11</sup> and other sources and can provide additional context for readers.

#### Data

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.

#### **Research Data**

Research data are data used as primary sources to support technical or scientific enquiry, research, scholarship, or creative practice. They are also 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 determining what counts should be 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.

#### 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 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.

<sup>&</sup>lt;sup>11</sup> Canada. (2023). *Tri-Agency Research Data Management Policy - Frequently Asked Questions*. https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/research-datamanagement/tri-agency-research-data-management-policy-frequently-asked-questions

#### 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 repository should have easily accessible policies describing deposit and user licenses, access control, preservation procedures, storage and backup practices, and sustainability and succession plans. 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. This additional information facilitates curation, discoverability, accessibility and reuse of the data.

#### OCAP

The First Nations principles of OCAP® are a set of standards establishing how First Nations data should be collected, protected, used and shared. Standing for Ownership, Control, Access, and Possession, OCAP® asserts that First Nations have control over data collection processes in their communities, and that they own and control how this information can be used. It also reflects a First Nations commitment to use information in a way that brings benefit to the community while minimizing possible harm.<sup>12</sup>

<sup>&</sup>lt;sup>12</sup> The First Nations Information Governance Centre. (2019). *The First Nations principles of OCAP*®. <u>https://fnigc.ca/wp-content/uploads/2021/08/OCAP-Brochure-2019.pdf</u>

# Appendix B: Internal and External Policies and Documents Related to RDM

The IRDMSWG identified existing policies and procedures, along with potential policy gaps. Policy gaps included a Data Classification Policy, an Information Security Policy, and an Indigenous Data Sovereignty Policy.

#### Internal Policies, Procedures, Documents

- <u>UPEI Strategic Plan 2018-2023</u>
- <u>Strategic Research Plan (2023 2028): Roadmap to Research Excellence</u>
- <u>Responsible Conduct of Research, Scholarly and Creative Work</u> (Assoc. Vice President Research and Dean of Graduate Studies, January 10, 2019)
- <u>Procedures for Stewardship of Research Records and Materials at the University of</u> <u>Prince Edward Island</u> (Assoc. Vice President Research and Dean of Graduate Studies, Review required - November 1, 2013)
- <u>Open Access & Dissemination of Research Output</u> (RAC, Review Date: 10 March 2026)
- <u>Research Ethics Board Policy</u> (UPEI REB, Review Date: 5 April 2027)
- <u>Research Ethics Board Standard Operating Procedures</u> (UPEI REB, Effective Date: 5 April 2022)
- <u>UPEI Equity, Diversity, and Inclusion Strategy</u> (Effective Date: February 2021)
- Access to Information and Protection of Personal Information and Privacy (Vice-President, Administration & Finance, Review Date: October 6, 2021)
- <u>Conflict of Interest</u> (Vice-President, Administration and Finance, Review Date: April 4, 2022)
- <u>Contract Research Policy</u> (Assoc. Vice President Research and Dean of Graduate Studies and Vice-President, Administration and Finance, <u>Review Date: January 28</u>, 2013)

- IT Systems and Services
  - <u>Acceptable Use Policy</u>
- data.upei.ca
  - <u>Terms of Deposit</u>
  - <u>Terms & Conditions</u>
- SIDR
  - Secure Island Data Repository (SIDR) Facility Security Procedure (SIDR Director & UPEI Chief Information Officer (ITSS), Effective Date: July 1, 2021)

#### **External Policies and Documents**

- PEI
  - Native Council of PEI Research Ethics
  - <u>L'nuey and Mi'kmaq Confederacy Research Ethics Board Terms of Reference</u>
  - Health PEI Research Ethics Board
  - <u>Government of PEI Open Data</u>
- National
  - Government of Canada Open Science and Data Platform
  - <u>Bill C-15: An Act respecting the United Nations Declaration on the Rights of</u> <u>Indigenous Peoples (2020)</u>
  - <u>Guidance on Depositing Existing Data in Public Repositories</u>
  - National Inuit Strategy on Research
  - National Security Guidelines for Research Partnerships
  - <u>Tri-Agency Open Access Policy on Publications</u>
  - <u>Tri-Agency Framework: Responsible Conduct of Research (2021)</u>
  - <u>Tri-Agency Research Data Management Policy</u>
  - <u>Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans</u> <u>– TCPS 2 (2022)</u>
    - See also <u>TCPS 2 (2022) Chapter 9: Research Involving the First</u> <u>Nations, Inuit, and Métis Peoples of Canada</u> and <u>TCPS 2 (2022) –</u> <u>Chapter 4: Fairness and Equity in Research Participation</u>.
  - <u>CIHR Health Research and Health-Related Data Framework and Action Plan</u>
  - SSHRC Research Data Archiving Policy
  - First Nations Principles of Ownership, Control, Access and Possession (OCAP)

#### • International

- <u>United Nations Declaration On The Rights Of Indigenous Peoples</u>
- <u>CARE Principles for Indigenous Data Governance (Collective benefit,</u> <u>Authority to control, Responsibility, and Ethics)</u>
- FAIR (Findability, Accessibility, Interoperability, and Reuse) Principles