

TRU RESEARCH AND GRADUATE STUDIES and TRU LIBRARY

# Data Management Institutional Strategy



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# 1 Introduction and Background

Thompson Rivers University campuses are located on the unceded traditional territory of the Tk'emlúps te Secwépemc (Kamloops campus) and the T'exelc (Williams Lake campus) within Secwepemcúl'ucw. The region TRU serves also extends into the territories of the St'át'imc, Nlaka'pamux, Tâilhqot'in, Nuxalk, and Dakelh, and Métis communities within these territories.

In March 2021, the Tri-Agency<sup>1</sup> outlined their Research Data Management Policy to support the growth of research and promote research excellence in Canada. The policy recognizes the impacts of projects both domestically and internationally and the need to ensure results are accessible (when possible) to the public who fund the work. All research institutions are required to comply with are three main components of the policy:

1. Institutional strategy to be completed, submitted to the agencies, and posted publicly to a website (by March 1, 2023).
2. Data management plans to be completed by researchers outlining project methodologies, data collection and organization strategies, and description of data storage, preservation, protection and sharing (recommended for all projects, and required by certain Tri-Agency grants<sup>2</sup>).
3. Data deposit for the digital storage and/or preservation of all research data will be phased in after research institutions create their institutional strategies.

Indigenous data sovereignty is an important facet of this policy, and the agencies recognize and support the need for Indigenous researchers to conduct research in ways that respect their unique rights and principles which are developed and governed by their communities in their ancestral land. As an important and necessary step towards reconciliation, the self-determination of First Nations, Inuit and Metis Peoples must be respected and upheld and in this way. Where generally the Tri-Agency policy supports the FAIR principles of data management (i.e., findable, accessible, interoperable and reusable), it acknowledges and respects that these are distinct from, for example, the OCAP (ownership, control, access and possession) principles (of data governance for research by and with First Nations).

For the last few years, TRU has been working towards meeting these requirements and preparing our research community for the journey ahead. We see the implementation of this policy as an opportunity to make stronger connections between researchers at TRU and beyond, and also to showcase and highlight best practices which are already followed by researchers here.

## 1.1 Importance of Research Data Management

Good research data management (RDM) practices have several benefits for individual researchers and research teams, as well as for TRU as a whole. Good data management can

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<sup>1</sup> <https://science.gc.ca/site/science/en/interagency-research-funding>

<sup>2</sup> <https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/research-data-management>

improve reproducibility of research; if data is easily understood and accessible to other researchers, it can be more widely used.<sup>3</sup> Data management plans and practices can also help researchers with issues like succession, contingency, consistency and data storage. Encouraging a culture of RDM at TRU will also support the growing number of graduate programs and undergraduate researchers.

## 1.2 Purpose

The *Tri-Agency Research Data Management Policy*<sup>4</sup> requires that each post-secondary institution eligible to administer Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council of Canada (NSERC) or Social Sciences and Humanities Research Council of Canada (SSHRC) grants creates an institutional RDM strategy. This document meets that requirement. It outlines current practices that support RDM at TRU and the future road map to improve and grow these practices to better support research and researchers.

This strategy will not mandate that every researcher has a data management plan or provides their research data on an open access (OA) platform. Some types of research data cannot be shared, such as personal and identifying information or information about vulnerable species. This strategy and the Tri-Agencies recognize the importance of protecting sensitive data and that having a secure storage location for such data is often part of a data management plan.

This strategy is also not an official policy document. Rather, the purpose of this strategy is to describe the current culture and future of research data management at TRU. The strategy will outline steps to build capacity and grow RDM services to meet future RDM requirements. The focus will be on meeting requirements set forth by the *Tri-Agency Research Data Management Policy* for researchers receiving such grants, but all the platforms and services mentioned will be available for anyone conducting research at TRU. The strategy will be updated on an ongoing basis as the state of RDM in Canada changes and TRU priorities and capacities grow and change.

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<sup>3</sup> [https://alliancecan.ca/sites/default/files/2022-04/NDRIO\\_RDM\\_PositionPaper.pdf](https://alliancecan.ca/sites/default/files/2022-04/NDRIO_RDM_PositionPaper.pdf)

<sup>4</sup> [https://www.ic.gc.ca/eic/site/063.nsf/eng/h\\_97610.html](https://www.ic.gc.ca/eic/site/063.nsf/eng/h_97610.html)

## 2 Definitions

Below are defined abbreviations and terms that are used in this strategy.

- **Research Data** are any materials that have been collected, observed, generated or created to validate original research findings. This may include material such as workflows, audio or visual recordings, surveys, field notes, spreadsheets or photos.
- **Research Data Management (RDM)** “refers to the storage, access and preservation of data produced from a given investigation.”<sup>5</sup> It encompasses any activities around the handling and organization of research data.<sup>6</sup>
- **Data Management Plans (DMPs)** are formal documents that describe the research data that the researcher/research team will collect, and how they will manage, describe, analyze, store, share and preserve that data.<sup>7</sup>
- **Institutional Repositories (IRs)** are online collections of the intellectual outputs of an institution, usually a university. Examples of materials in an institutional repository might be research data, faculty and student publications, Open Educational Resources (OERs) and documents from the institution’s history.
- **TRUSpace**<sup>8</sup> is TRU’s institutional repository. All materials in TRUSpace are available open access.
- **Data Repositories** are repositories specifically meant to deposit research datasets. Materials in data repositories may be available open access, or only the metadata may be available, with the dataset itself merely deposited on the server, not available to download, in order to protect sensitive data.
- **Federated Research Data Repository (FRDR)**<sup>9</sup> is a national open access research data repository. Researchers can deposit their data directly into FRDR. Additionally, datasets deposited into other Canadian data repositories can be found in FRDR.
- **Borealis: The Canadian Dataverse Repository** (formerly known as Scholars Portal Dataverse) “is a bilingual, multidisciplinary, secure, Canadian research data repository, supported by academic libraries and research institutions across Canada. Borealis supports open discovery, management, sharing and preservation of Canadian research data.”<sup>10</sup>
- **Open Access (OA)** materials are available online without any financial, legal or technical barriers. Anyone can read, download and use OA materials in any way within the legal agreements.<sup>11</sup>
- **Sensitive Data** here refers to data that cannot be shared due to the content of the data. Common types of sensitive data include human participant information, Indigenous-

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<sup>5</sup> <https://codata.org/initiatives/data-science-and-stewardship/rdm-terminology-wg/rdm-terminology/>

<sup>6</sup> <https://www.lib.sfu.ca/help/publish/research-data-management/introduction>

<sup>7</sup> <https://library.stanford.edu/research/data-management-services/data-management-plans>

<sup>8</sup> <https://tru.arcabc.ca/>

<sup>9</sup> <https://www.frdr-dfdr.ca/repo/>

<sup>10</sup> <https://borealisdata.ca/>

<sup>11</sup> <https://www.openaccess.nl/en/what-is-open-access>

owned data that cannot be widely shared and location information of threatened species.<sup>12</sup>

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<sup>12</sup> [https://www.frdr-dfdr.ca/docs/en/preparing\\_your\\_data/#restricted-data](https://www.frdr-dfdr.ca/docs/en/preparing_your_data/#restricted-data)

## 3 Stakeholders

There are many groups who have a role to play when it comes to RDM at TRU. Feedback and input on RDM platforms and services, as well as on this strategy, was collected from key stakeholders at TRU, including, but not limited to:

- Faculty researchers
- Canada Research Chairs
- Indigenous researchers<sup>13</sup>
- Grant holders
- Office of the Vice-President Research
- Librarians' department
- Information Technology Services
- Graduate students
- Department chairs
- Research Ethics Board
- Research Committee of Senate

Feedback was garnered through a variety of methods, such as email and in-person and online meetings. In addition, a survey was distributed to the entire research community at TRU (including, but not limited to, the groups listed above) to obtain additional feedback on this strategy and on RDM services at TRU at large. The survey was advertised through TRU Connect, the TRU faculty listserv, TRU library social media, and by emailing it to researchers, directors and deans directly. Overall, 47 individuals filled out the survey, including tripartite faculty, bipartite faculty, deans and Open Learning Faculty Members (OLFM).

Feedback from faculty members, students and staff who attend workshops and sessions about RDM services and practices is also always recorded and has been incorporated into this strategy and into RDM outreach activities. Approximately 30 faculty have attended drop-in workshops offered by RDM institutional leads, and approximately 100 individuals have attended an RDM workshop or other session (i.e., department meeting about RDM) total.

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<sup>13</sup> Indigenous researchers are not in the general sense “stakeholders” in their own research. Rather, given their unique rights as knowledge-holders and knowledge-keepers in their land, Indigenous Peoples, their protocols and procedures must be respected and for this reason, Indigenous researchers were contacted directly to solicit feedback for this strategy.

## 4 Strategy and Road Map

Objectives	Current practices and supports	Gaps, next steps, and resources required	Units responsible	Timeline
<b>Raise awareness</b>				
<p>1. Identify and consult with stakeholder communities</p>	<p>Two faculty members (TRU RDM institutional strategy leads, hereafter <i>institutional leads</i>) have a designated fraction of their workload dedicated to Research Data Management co-ordination at TRU; the Scholarly Communications Librarian Erin May (Library) and Post-Doctoral Research Fellow in RDM Evelyn Asiedu (Office of the VP Research) are collaborating on all RDM initiatives.</p> <p>These two RDM institutional leads have convened an <i>ad hoc</i> group of stakeholders with expert knowledge in specific areas which touch on RDM (March 15, 2022; October 14, 2022). The ad hoc group members include:</p> <ul style="list-style-type: none"> <li>- Anita Sharma (manager, Office of the VP Research)</li> <li>- Tricia Lawrie (ethics, grants, and contracts compliance officer, Office of the VP Research)</li> </ul>	<p><b>Next Step:</b> Design an appropriate, formal governance structure that embeds RDM into existing university governance.</p> <p><b>Next Step:</b> We acknowledge the necessity to include Indigenous perspectives without overburdening Indigenous researchers. The Secwépemc Nation Research Ethics Guidelines were published in spring of 2022. This document gives local considerations for principles and practices of ethics and is a great reference. Additional engagement with Indigenous researchers is required to better capture important facets of Indigenous data sovereignty and data management. This will create intentional and thoughtful relationship-building and conversation with Indigenous faculty members.</p> <p><b>Ongoing:</b> Active consultation with the research community at TRU,</p>	<p>TRU Library (<i>Library</i>), Office of the Vice-President Research (<i>Research</i>), TRU administration (<i>Administration</i>)</p> <p>Library, Research, , Administration</p>	<p>Short-term</p>



	<ul style="list-style-type: none"> <li>- John Cuzzola (director information security, IT Services)</li> <li>- Rochelle Stevenson (chair, Research Ethics Board)</li> <li>- Marina Sparks (privacy and information officer)</li> </ul> <p>Institutional leads have reached out to stakeholder communities (see Section 3 Stakeholders for a full list of stakeholders) for feedback on this strategy, as well as on RDM services and platforms at TRU. See Section 5.2 September 2021-December 2022 Outreach and Education Activities below for full list of outreach activities.</p>	including but not limited to the groups listed in Section 3 Stakeholders, will continue.	Library, Research	
2. Develop awareness materials and resources for stakeholder communities	<p>Create a website for RDM at TRU to consolidate TRU-created and external learning materials, resources and information about RDM and DMP practices and platforms.  <a href="https://libguides.tru.ca/rdm">https://libguides.tru.ca/rdm</a></p>	<p><b>Ongoing:</b> Maintain and update website with new information regularly, including information for specific user groups.</p> <p><b>Next steps:</b> Increase visibility and findability of website and other RDM information and materials.</p>	<p>Library, Research</p> <p>TRU Marketing and Communications, Research, Library</p>	<p>Ongoing</p> <p>Ongoing, short-term</p>
3. Determine and apply the appropriate delivery mechanisms for outreach	<p>Offering drop-in sessions and scheduled workshops covering introductory aspects of RDM.</p> <p>Targeted outreach to departments (via department chairs), faculties (via Deans), grant holders, and Canadian Research Chairs. See</p>	<p><b>Next step:</b> Continue to evaluate all methods of outreach and education that have been undertaken to determine the best way to continue long-term.</p> <p><b>Next step:</b> As suggested by the results of the <i>TRU Institutional</i></p>	Library, Research	Medium-term

	<p>September 2021-December 2022 Outreach and Education Activities below for full list.</p> <p>Gathering feedback around best methods for outreach and education formally through a survey, and informally at workshops. See Section 5.2 September 2021-December 2022 Outreach and Education Activities for full list.</p>	<p><i>Research Data Management Strategy Feedback Survey</i>, one-on-one consultations are the preferred method of training. Institutional leads must identify how to best offer these and other RDM and DMP support in varying formats and at the point of need (for instance, when researchers working on a grant application that requires a DMP).</p> <p><b>Gap and resources required:</b> Time and dedicated human power is required to formally evaluate current activities and to begin additional activities beyond those listed below.</p>	Library, Research	Short-term
4. Participate in national RDM consultations and events	<p>Individuals from Library, Research, and IT have attended <i>Putting the Tri-Agency Policy into Practice</i> (workshop series) in October 2021. They have attended various other RDM training initiatives and continue to do so. See Appendix C: RDM professional development below for a list of training attended by TRU institutional leads.</p> <p>On the listserv and working group for smaller institutions, learning about and developing RDM on their own campuses.</p>	<p><b>Next step:</b> Continuing this active professional development.</p> <p><b>Gap:</b> Active participation by TRU at larger-scale initiatives, for instance, membership in a national RDM committee.</p>	Library, Research, IT  Library, Research, IT	Ongoing  Ongoing

	Participation in Canadian RDM listserv ( <a href="mailto:Canlib-data@lists.ubc.ca">Canlib-data@lists.ubc.ca</a> ).			
<b>Evaluate Existing RDM Services</b>				
5. Data Management Planning	<p><b>Ongoing:</b> Offering workshops and consultations as needed to support researchers with data management practices, the creation of DMPs, and storing and archiving research data.</p> <p><b>Ongoing:</b> Promoting and instructing in use of Portage DMP Assistant to create DMPs.</p>	<p><b>Next step:</b> continue to improve and grow data management planning support for researchers.</p> <p><b>Gap:</b> Portage DMP Assistant currently not customized specifically for TRU. Time and capacity are required to customize the Portage DMP Assistant for TRU by adding TRU-specific resources and integrating with Research Ethics Board forms.</p>	Administration  Library	Ongoing  Medium-term
6. Institutional support and training	<p>Offering workshops and consultations as needed to support researchers with making DMPs and to educate them about RDM best practices. See Section 5.2 September 2021-December 2022 Outreach and Education Activities for full list.</p> <p>Collaborating with researchers to determine support and training needs.</p> <p>Creation of educational materials related to RDM and DMPs on new</p>	<p><b>Next step:</b> As suggested by the results of <i>TRU Institutional Research Data Management Strategy Feedback Survey</i>, we will begin offering RDM and DMP support in varying formats at the point of need (for instance, when researchers working on a grant application that requires a DMP, see item 3).</p> <p><b>Gap:</b> Provide specialized support in specific areas of RDM, such as (but not limited to) data anonymization, intellectual property or information security, as identified by researchers.</p>	Library, Research  Administration, workload committees of relevant departments	Ongoing  Long-term

	<p>RDM at TRU website:  <a href="https://libguides.tru.ca/rdm">https://libguides.tru.ca/rdm</a>.</p>	<p><b>Resource required:</b> This support may take the form of bringing in expert speakers in these areas or supporting TRU faculty in sharing their expertise.</p> <p><b>Resource required:</b> Additional RDM faculty/staff time, such as a permanent research data expert in the research office and/or additional librarian(s) with RDM responsibilities. Financial resources may be required to fill this gap.</p>		
<p>7. Data storage, repositories and archiving</p>	<p><b>Active data storage</b> (i.e., storage of data during the active phase of research) is available by request from IT. Currently available tools from IT include Microsoft OneDrive, network storage and EduCloud.</p> <p><b>Data deposit:</b> TRU currently has an open access institutional repository, TRUSpace, where TRU researchers can deposit (i.e. archive) OA datasets. TRU researchers can also deposit OA datasets in Canada's Federated Research Data Repository (FRDR).</p> <p>Researchers do not have to deposit data at this time unless</p>	<p><b>Gaps:</b> Active data storage gaps identified by the survey sent to the research community at TRU include issues such as shared access by non-TRU research partners, long-term storage beyond the lifetimes of researchers and research teams, and storage for large amounts (i.e. terabytes) of data.</p> <p><b>Next steps:</b> Identify and outline existing IT supports for RDM and data storage. Increase visibility on TRU website and researcher knowledge of IT resources and supports for RDM and data storage.</p>	<p>IT Services (IT) (lead), Library, Administration</p> <p>IT, Library, Administration</p>	<p>Medium-term</p> <p>Medium-term</p>

	<p>required by a publication or specific grant. When researchers do want or need to deposit data, they are not limited to the options listed above but can also choose other data repositories (for instance, there may be a more appropriate subject specific repository that suits a dataset).</p> <p>An institutional instance of <u>Borealis</u>, the Canadian Dataverse Repository, has been obtained by the Library. This will allow researchers to better work on, deposit, and preserve their data. Similar to the repository options listed above, researchers will not be required to use Borealis; however, Borealis fills the need for a secure, TRU-hosted data-specific repository.</p>	<p><b>Next steps:</b> Continue to grow IT supports for RDM and data storage.</p> <p><b>Gap:</b> Current deposit options assume OA data and does not allow for sensitive and/or active data.</p> <p><b>Resources required:</b> Resources and expertise around long-term preservation of sensitive data that cannot be shared or deposited in a repository.</p> <p><b>Next step:</b> Setting up and launching TRU's instance of Borealis.</p>	<p>IT, Library, administration</p> <p>IT, Library, Administration</p> <p>Library</p>	<p>Long-term</p> <p>Long-term</p> <p>Short-term</p>
<p>8. Institutional policies, guidelines, and/or procedures</p>	<p>The <u>Secwépemc Research Ethics guidelines</u> document has been published.</p> <p>Current TRU policies related to RDM:</p>	<p><b>Gap and resources required:</b> Creation of guidelines for working respectfully with data from or about First Nations, Métis, and Inuit individuals, communities and nations. This would require meaningful consultation with and</p>	<p>Administration, Library, Research, Research Ethics Board (REB), Indigenous researchers</p>	<p>Long-term</p>

	<ul style="list-style-type: none"> <li>• <u>Copyright</u></li> <li>• <u>Fair Dealing</u></li> <li>• <u>Information Security</u></li> <li>• <u>Integrity in Research and Scholarship</u></li> </ul> <p>Ethics approval forms from the Research Ethics Board contain questions about data management.</p>	<p>support for Indigenous researchers.</p> <p><b>Gap:</b> There are currently no policies for RDM at TRU. Any policy made about RDM would need to align with the existing policies listed to the left.</p> <p><b>Next step:</b> Reconsider TRU policies that are about research, research ethics, data, copyright and other related topics (including but not limited to the <u>Copyright Policy</u> and <u>Integrity in Research and Scholarship Policy</u>) and ensure that they are consistent with each other, with ethical considerations and with Tri-Agency requirements</p> <p><b>Next step:</b> Align DMP requirements, questions, and/or platforms with existing ethics approval forms and requirements to reduce administrative load on researchers.</p>	<p>Administration, Library, Research, REB</p> <p>Administration</p>	<p>Long-term</p> <p>Long-term</p>
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# 5 Commentary

## 5.1 Sensitive Data and Data Deposit

Concerns about what to do with sensitive data are common. Sensitive data cannot be stored in OA repositories, and often other data repositories have limiting policies around storing or archiving sensitive data in the repository. For example, Borealis's terms of use section on sensitive data states: "By using [Borealis], you confirm that all your content does not contain information that could directly or indirectly identify a subject, except where the release of such identifying information has no potential for constituting an unwarranted invasion of privacy and/or breach of confidentiality."<sup>14</sup>

Sensitive data will not be required to be deposited, including any data that cannot be shared for any reason that is related to research ethics. Some disciplines have specific, secure repositories for sensitive data that needs to be shared among researchers in the area. Some (though not all) sensitive data can be anonymized and/or deidentified to make it suitable for deposit. TRU researchers can refer to <https://libguides.tru.ca/rdm/sensitive> for continually updated resources and information about sensitive data and deidentification.

## 5.2 September 2021-December 2022 Outreach and Education Activities

This list outlines the RDM outreach and education activities undergone by RDM institutional leads between September 2021 and December 2022. All these activities are planned to continue, and additional activities and/or educational materials are in progress.

### 5.2.1 Research Data Management at TRU website

The *Research Data Management at TRU* website (<https://libguides.tru.ca/rdm>) was created to be a continually updated resource. It includes:

- RDM and DMP workshop schedules, recordings and materials
- Contact information for RDM institutional leads
- Frequently asked questions and answers about RDM and DMPs
- Steps for creating data management plans
- Information and further resources about various aspects of RDM and DMPs, including:
  - Good data management practices
  - Sensitive data
  - Storing, depositing and preserving data
  - Indigenous data sovereignty
  - Copyright and ownership of data

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<sup>14</sup> <https://borealisdata.ca/termsfuse/>

## 5.2.2 Department and Committee Presentations

- 2021-11-03: *Introduction to Research Data Management* presented to TRU Canada Research Chairs
- 2021-12-07: *Introduction to Research Data Management* presented to TRU grant holders
- 2021-12-08: *Introduction to Research Data Management* presented to TRU grant holders
- 2022-01-27: *Research Data Management Presentation* to TRU Department Chairs
- 2022-04-26: *Research Data Management Presentation* to Natural Resource Sciences Department
- 2022-05-06: *Research Data Management Presentation* to Psychology Department
- 2022-05-09: Discussion about RDM with Research Ethics Board
- 2022-06-21: *Research Data Management Presentation* to Engineering Department
- 2022-09-27: *Research Data Management Presentation* to Librarian's Department
- 2022-11-15: *Research Data Management Update* to Senate Research Committee

## 5.2.3 Workshops (and number of attendees)

- 2022-03-16: *Introduction to Data Management Plans* (7)
- 2022-03-24: *Introduction to Data Management Plans* (10)
- 2022-09-21: *So, You Need a Data Management Plan* (6)
- 2022-10-24: *So, You Need a Data Management Plan* (3)
- 2022-12-06: *So, You Need a Data Management Plan* (3)
- Video recording: *Creating a Data Management Plan: Walkthrough*

## 5.2.4 Other Outreach

- Emails: regular emails about upcoming RDM workshops and initiatives were sent to the faculty listserv (faculty-l), faculty deans, department chairs, through TRU Events and TRUConnect. With the removal of the faculty listserv, outreach will continue through the other aforementioned channels.
- One-on-one and small group consultations: researchers and research teams can make appointments with institutional leads or their liaison librarian or ask questions via email about RDM and DMPs.
- RDM draft strategy survey: while most questions were about feedback on this strategy, some questions were about existing RDM knowledge and the best ways to support researchers. See appendix A for additional details about the survey.



# 6 Looking Ahead

## 6.1 Ideal State for RDM at TRU

Broadly, an ideal state for RDM at TRU is that researchers at TRU will know and understand the supports and resources available for research data management and data management planning, and these supports and resources will meet the needs of the variety of researchers at TRU.

Specifically:

- A focus on Indigenous data sovereignty and Indigenous data management principles is required.
- The establishment of a formal governance structure for research data management that is integrated into existing governance at TRU.
- An institutional approach to data governance may be outlined, posted and promoted jointly through the Library and the Office of the Vice-President Research.
- RDM practices and supports are incorporated into orientation for new faculty members and graduate students, and are introduced to undergraduate students.
- Supports for RDM and DMP creation, such as education opportunities for researchers and resources for DMP best practices and steps, will continue and grow.
- A TRU specific data repository will be made available so that there are clear options to meet data deposit requirements of the Tri-Agencies, other granting agencies, journals and/or other sources.
- Technological data resources, such as options for data storage space and technical support, will be well-known to researchers and will continue to grow.
- A network of TRU experts on various aspects of RDM, (for example, research ethics, sensitive data or qualitative data), will be formed to work with and support TRU researchers.

## 6.2 Oversight and Review

As part of the development of the internal governance of RDM, a framework will be created for the regular review of this strategy (at least every two years).

## 7 References

These include materials referenced in the text of the strategy as well as materials that were instrumental in the creation of the strategy.

*Borealis: The Canadian Dataverse Repository* (n.d.). <https://borealisdata.ca/>

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*TRUSpace* (n.d.). <https://tru.arcabc.ca/>

# Appendix A: RDM Draft Strategy Survey Results

Below are some limited data from the RDM draft strategy survey. To protect confidentiality of respondents, this has been kept very high level.

47 individuals filled out this survey. The largest group was tripartite faculty (28 respondents). 15 of the respondents have attended a RDM workshop or other session (as listed in September 2021-December 2022 *Outreach and Education Activities*).

Table 1 shows responses for the question, “What method(s) of support with the creation of data management plans is/are useful to you?” This information will be used for future outreach and education planning.

A question asked where respondents would look for information about RDM and DMPs (“Where would you look/do you look for RDM information? What location(s) could this RDM website be linked to that would make it more useful and visible to you?”). The most common response to this question was the website of the Office of the Vice-President Research (15 responses), followed by other website placement suggestions. This is informing our work with increasing the visibility of the RDM website (see row two in Section 4: Strategy and Road Map).

Eight questions on the survey asked for specific feedback about the draft of this strategy that was attached to the survey. Responses to these questions strongly informed major updates to the strategy.

**Table 1:** Responses for “What method(s) of support with the creation of data management plans is/are useful to you?”

<b>Dropdown option</b>	<b>Number of respondents</b>
One-on-one	40
Online guides / reading materials	29
Targeted support week before grant due	22
Async webinars	22
In-person workshops	20
Sync webinars	16
Targeted support a couple times a month before grant application due	1

## Appendix B: TRU Institutional Research Data Management Strategy Feedback Survey Questions

To which faculty, school or division do you belong?	Dropdown with list of faculties, schools and divisions
What is the name of your department?	Write-in answer
In what capacity/role do you conduct research at TRU? (Check all that apply)	<ul style="list-style-type: none"> <li>• Tripartite faculty member</li> <li>• Bipartite faculty member (I do my own research)</li> <li>• Bipartite faculty member (I do not do my own research)</li> <li>• Staff member</li> <li>• Undergraduate student</li> <li>• Graduate student</li> <li>• Grant holder</li> <li>• Supporting researchers in various capacities (i.e. with grants, library help, etc.)</li> <li>• On a multi-person research team</li> <li>• Postdoctoral fellow</li> <li>• Visiting scholar</li> <li>• Researcher in residence</li> <li>• Other (please describe)</li> </ul>
<p>Here is the list of stakeholders that we consulted as part of the process described. Are there any groups missing from this list?</p> <ul style="list-style-type: none"> <li>• Canada Research Chairs</li> <li>• Indigenous researchers</li> <li>• Grant holders</li> <li>• Office of Research and Graduate Studies</li> <li>• Librarians' department</li> <li>• Information Technology Services</li> <li>• Graduate students</li> <li>• Department chairs</li> <li>• Research Ethics Board</li> <li>• Other interested researchers</li> </ul>	Write-in
Are you interested in being on the RDM advisory committee when it is formed? If so, consider reaching out to Erin May and/or Evelyn Asiedu to let them know you are interested.	Yes/No
Do you have any additional feedback or commentary on Row 1 of the <b>Strategy and Road Map</b> section of the TRU Research Data	Write-in

Management institutional strategy provided above?	
Where would you look/do you look for RDM information? What location(s) could this RDM website be linked to that would make it more useful and visible to you?	Write-in
Are there other ways of receiving information about RDM and DMPs that are more useful to you than a website? (For example, email newsletters, in-person workshops, webinars, etc.)	Write-in
Do you have any additional feedback or commentary on row two of the Strategy and Road Map section of the TRU Research Data Management institutional strategy provided above?	Write-in
Have you attended any RDM information sessions or workshops at TRU?	Yes, no, unsure
If yes, where?	Write-in
What method(s) of support with the creation of data management plans is/are useful to you? (For example, one-on-one consultations, workshops, targeted support, etc.)	Check as many as desired: <ul style="list-style-type: none"> <li>• One-on one consultations</li> <li>• In person workshops</li> <li>• Targeted support (i.e. week before grant application due)</li> <li>• Online guides and reading materials</li> <li>• Synchronous webinars</li> <li>• Asynchronous webinars</li> <li>• Other (please describe)</li> </ul>
What method(s) of support with the creation of data management plans is/are most useful to you? (For example, one-on-one consultations, workshops, targeted support, etc.)	Write-in
Do you have any additional feedback or commentary on row three of the Strategy and Road Map section of the TRU Research Data Management institutional strategy provided above?	Write-in
Have you created a data management plan before?	Choose one: <ul style="list-style-type: none"> <li>• Yes, with the Portage Assistant</li> <li>• Yes, with a different too</li> <li>• Yes, on my own without using an online tool</li> <li>• No</li> <li>• I'm not sure</li> </ul>
If you have created a Data Management Plan with a tool other than the Portage DMP	Write-in

Assistant, please describe your tool and/or method:	
Do you have any additional feedback or commentary on row five of the Strategy and Road Map section of the TRU Research Data Management institutional strategy provided above?	Write-in
Are you an expert in any of the following areas? (Click all that apply.)	<ul style="list-style-type: none"> <li>• Data anonymization</li> <li>• Research ethics</li> <li>• Online data back-up and/or storage</li> <li>• Research data repositories</li> <li>• Indigenous research data sovereignty and/or storage</li> <li>• I'm not sure</li> <li>• None of the above</li> <li>• Other (please specify)</li> </ul>
If you indicated that you do have an area of expertise when it comes to research data, would you be interested in sharing your expertise with TRU researchers given some funding and/or support?	Yes/no
Do you have any additional feedback or commentary on row six of the Strategy and Road Map section of the TRU Research Data Management institutional strategy provided above?	Write-in
Where do you currently store and/or deposit your research data, if anywhere? Examples might be a hard drive in your office, TRUSpace, Microsoft OneDrive, etc.	Write-in
What needs for data storing, archiving, and/or deposit do you foresee yourself requiring in the future?	Write-in
Do you have any additional feedback or commentary on row seven of the Strategy and Road Map section of the TRU Research Data Management institutional strategy provided above?	Write-in
Do you have any other feedback or commentary on the draft strategy?	Write-in

# Appendix C: RDM Professional Development

RDM institutional leads have attended several RDM-related professional development opportunities, such as webinars and workshops. These have built our knowledge about RDM generally, informed our own education and outreach materials and given support about the creation of this strategy.

- 2021-10 to 2021-11: Research Data Management Basics Series, from Council of Atlantic Academic Libraries (CAAL)
  - RDM Basics: What You Need to Know (October 2021)
  - Help! I Need a Data Management Plan! Get Started Using the DMP Assistant and More (October 2021)
  - Where to Deposit your Data: Dataverse? FRDR? Other? (November 2021)
  - Leveraging Advanced Digital Research Infrastructure to Support Research Data Management (November 2021)
- 2021-10: Putting the Tri-Agency Policy into Practice Series, from Portage (Alliance)
  - Tri-Agency Policy Pillar 3 Webinar: Data Deposit
  - Tri-Agency Policy Pillar 1 Webinar: Institutional RDM Strategy
  - Canadian RDM Assessment Model Workshop
  - Institutional RDM Strategies Case Studies Panel, Wrap-Up and Next Steps
- 2022-02: Building Connections: A Research Data Management Workshop by Mount Royal University and Trinity Western University supported by SSHRC
  - Three-day workshop session bringing together stakeholders from western Canada to discuss RDM
- 2022-11: Institutional RDM Strategy Workshop from ARMIN (Alberta Research Data Management Information Network)
  - Two-part series of workshops and discussions about creating institutional RDM strategies