MEMORIAL UNIVERSITY
MEETING OF THE SENATE COMMITTEE ON RESEARCH
Monday, May 3, 2021, 2:30 p.m.

A meeting of the Senate Committee on Research (SCOR) was held virtually, via WebEx, on Monday, May 3, 2021, at 2:30 p.m.

In Attendance:

Dr. Robert Bailey
Dr. Svetlana Barkanova
Dr. Anne Burke
Dr. Mumtaz Cheema
Dr. Bing Chen
Ms. Paula Clarke
Ms. Alison Farrell
Dr. Ray Gosine
Dr. Emmanuel Haven
Dr. Darron Kelly
Dr. Edward Kendall
Dr. Chris Kozak, Co-Chair
Ms. Marie Murphy
Dr. Nancy Pedri, Chair
Dr. Aimee Surprenant
Dr. Kim Welford
Dr. Benjamin Zendel

Regrets:

Dr. Neil Bose
Ms. Jessica Canning
Dr. Steve Carr
Dr. Maisam Najafizada
Dr. Arthur Sullivan
Dr. Roza Tchoukaleyska
Ms. Ariel Thomas
Mr. David Miller

1. APPROVAL OF AGENDA

The Chair asked for approval of the agenda.

Motion 1: To approve the agenda for the May 3, 2021 meeting.

First - Dr. Bing Chen
Second - Dr. Edward Kendall

All members present voted and the motion was carried.

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2. APPROVAL OF MINUTES OF MARCH 1, 2021 MEETING

The Chair asked for approval of the minutes of the March 2021 meeting.

Motion 2: To approve the minutes of the March 2021 meeting.

First - Dr. Anne Burke
Second - Dr. Kim Welford

All members present voted and the motion was carried.

In the interest of time, the Chair asked to move the Co-Chair announcements ahead of her announcements as Dr. Kozak had to leave at 3:00 p.m.

3. CO-CHAIR ANNOUNCEMENTS

A. DEVELOPMENTS WITH RESEARCH DATA MANAGEMENT DISCUSSIONS

Dr. Kozak said that the driver behind this consultation was a brief report on the developments of the Research Data Management discussions that have been ongoing for a while. A document was circulated to the members before the meeting and is attached to these minutes. Dr. Kozak asked the members to send him any feedback on the report they may have and he would incorporate it into the implementation for the roadmap and the institutional strategy.

B. PROGRESS FOR RECOMMENDATIONS OF THE COMMITTEE ON EXPERIENTIAL LEARNING PROFICIENCY

Dr. Kozak explained that Student Life, on campus, which is focusing on graduate as well as undergraduate students, is looking to formalize an approach for undergraduate experiential learning (for example, the role of the MUCEP program). He said that the reason he was mentioning it in the Senate Committee on Research is because a lot of researchers hire students, and use MUCEP training as part of their own research program development but also to give undergraduate students research experience. This student life focus group is asking members from various faculties across campus to propose ways of modernizing or formalizing the experiential learning approach to undergraduate students.

4. CHAIR ANNOUNCEMENTS

A. DEVELOPMENTS WITH THE PRESIDENTS AWARDS ON RESEARCH / UNIVERSITY RESEARCH PROFESSOR

The Chair informed the committee that files have been allocated and a meeting is scheduled for June to discuss the files.

B. NEW MEMBER/RETURNING MEMBER

The Chair also extended her thanks to Mr. Jin Chen from the Graduate Student Union (GSU) for serving on this committee as its representative. His term is over and the

GSU is now looking for a new representative for this committee. The Chair also welcomed Dr. Cyr Couturier from Fisheries and Marine Institute as well as mentioning that Dr. Benjamin Zendel had agreed to stay on the committee for another 3-year term.

5. RESEARCH GRANTS AND CONTRACTS: TOTAL FUNDED APPLICATIONS & FUNDING

Ms. Paula Clarke presented four PowerPoint slides on behalf of Mr. David Miller. The presentation has been attached to these minutes as Appendix I.

The first slide shows trends over the past 12 years or so. The number of applications is trending up over the years. Similarly, the dollar value of research funding awarded is also trending in an upward direction.

The second slide breaks down the types of funding by recording the Tri-Agency funding awarded in relationship to the total funding.

The third slide presents each agency individually in relationship to Tri-Agency funding. The total Tri-Agency funding is trending upwards; it has gone up about 4 million dollars over the last 6 years. NSERC funding is trending upwards. CIHR funding is fairly stable, standing at around the 5 million dollar mark and turning slightly upward, but generally stable. SSHRC funding has been trending slightly downward over the last few years.

The final slide looks at the total funding awarded through a comparison of industry, Tri-Council, and Government of Newfoundland funding sources. Industry funding is trending upward. The total Tri Council funding is trending slightly upward. The Provincial government funding for research is down significantly over the last few years.

There were quite a number of questions and, given the time, the Chair suggested that all questions be forwarded to Ms. Marie Murphy to be complied and then sent to Mr. David Miller to answer.

6. ADJOURNMENT

The Chair adjourned the meeting at 3:05 p.m.

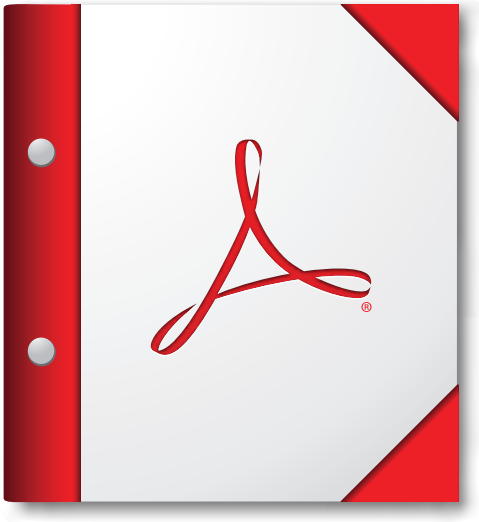
7. INNOVATION STRATEGY CONSULTATION

On May 26, 2021 there was a special meeting of SCOR to allow Dr. Paula Mendonça and Dr. Carlos Bazan from the Technology Transfer & Commercialization Office to facilitate a one hour consultation session with SCOR. This consultation was recorded to allow the TTCO to tabulate the feedback in a more detailed manner. Please see Appendix II for both the invitation and the list of attendees.

Dr. Nancy Pedri, Chair

Mr. David Miller, Executive Secretary

Appendix I



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March 22, 2021

RISE Framework – Gaps and Recommendations for Memorial University's RDM landscape.

Alison Farrell, Marc Bolli, Sarah Arnott, Craig Squires, Alison Randall, Chris Kozak, Matthew Milner, Don Bryant

Goals:

- Identify gaps
- Provide recommendations for moving towards an ideal state.

Policy Development:

Level 0
Aim: Level 2

We have some research policies that address RDM, but no RDM policy per se. A dedicated RDM policy is needed. This policy must be cohesive and work with the other Research policies. One reason an RDM policy is needed, is that it is much more effective to point to a policy when making suggestions on grant applications.

While all research policies must be considered when writing an RDM policy, the following policies will be particularly relevant.

- Ethics of Research Involving Human Participants – Section 10
- Integrity in Scholarly Research – Section 1, 2, 3,

Gap: RDM policy

Recommendation: Create RDM policy that aligns with other research policies

Awareness Raising and Stakeholder Engagement:

Level 3 for policies that exist for some stakeholders, Level 0 for policies that do not exist and for policies that do exist for some stakeholders.

Communication of policies are dependent on the discipline as well as the researcher position (faculty, graduate student, etc.), some are much more aware than others. It is not clear whose responsibility it is to educate students about policies. Grant facilitators, while excellent resources for this type of work, are hired by faculty, rather than by the University centrally, which leads to an uneven level of resources across faculties.

Intellectual Property (IP) for grad students – following SGS policies – ownership of data varies between faculties/supervisors. For example, if a faculty member acquires a piece of equipment and the student uses it, who has IP? How to identify who the discoverer is? The supervisor who funded the grant? Or the student.

RD policies will often go back to the sponsor. There are often policies embedded in a contract or a grant (IE Royal chemistry society – any discoveries that arise from that grant are public)

Gap: student learning about policies in general, IP as well. Need student learning. Supervisors, grants facilitators need to know about this stuff and this is so individual, based on experience.

Gap: RDM policy at MUN. Once we have that, we can promote the policies.

Gap: Training for senior admin staff (Deans, etc.) – these are the people who need training about policies so they can educate when they are working with researchers.

Recommendation: provide more training opportunities around policies, specifically for grants facilitators, senior admins and supervisors.
Recommendation: onboarding of new faculty – include policy education and RDM education in orientation

RDM Implementation Roadmap

We have a current roadmap that is level 2. Now that the policy is out, we will need to take a look at the roadmap and re-evaluate.

Our strategies are not well understood, well known or articulated. We have strategies for developing research.

In order to be at level 3, we would need to mine the data that we have about our strategies and how well they are working or not, and use that data to make changes and to inform strategies going forward. No tracking right now about whether or not researchers follow through on the data practices they say they will.

Gap: Institutional Strategy to guide roadmap

Recommendation: Use existing data about researcher practices to inform institutional strategy

Staff Investment:

Level 2

We are moving into level 2 as people get more responsibilities. However, there are some limitations in terms of cost recovery models. (Ie, grants that allow only soft money)

No indirect costs of research are used to provide data management/data storage etc. Hopefully NDRIO will be a source of funding and support for RDM.

In CHIA, two staff are working with researchers to create DMPs when data is deposited into CHIA. This is mostly for data sets from NLCHI.

Grants could potentially add fee for services for data management.

There is flexibility as long as we think outside the box

Charge back costs: Now charging for storage in CHIA. We could do this above a certain base amount of storage. Creait has a charge back model that covers data backup. – but this is transparent, so you may not know that you have some of these services.

Gap: No way to leverage grants to hire staff to support data management

Recommendation: Look for other avenues to fund staff to support RDM (charge back models, NDRIO, etc.)

Technology Investment:

Dataverse and Research Data Backup Service (not actually available right now) are the only two services that actually make data findable and accessible in the long term, which would equate to level 1.

There is no standard level of what technology researchers have access to when they are hired at MUN. Researchers are often expected to purchase their own equipment through PDTER, grants or through personal funds. This results in inequities across departments not only about the hardware, but about the services available to

researchers with different connections (ie, home directories not allowed on unauthorized computers).

There is little to no funding for technology for research data.

Lack of awareness about what services are available.

It is not clear who is responsible for providing services for researchers.

Gap: Lack of resources to support all researchers
Gap: Lack of awareness of resources/infrastructure and how to access/gain. Once understood, very cumbersome processes.

Recommendation: Roll out Office 365. This will solve some of the issues around resources. 5TB will be the norm for each researcher.
Recommendation: Simplify/remove barriers from processes to purchase research equipment through grants.
Recommendation: Research hardware to be a Research IT governance Committee agenda item.

Cost Modelling:

Level 0
Aim to be Level 2

We have a few base services that are covered by the funds in the particular units that support them (Library - Dataverse, ITS- home directories).

No other RDM services are covered by overheads on grants.

Grant overheads are contentious. Inequalities amongst departments and between grants. Some allow for overhead costs, others do not.

RSF are not sufficient for all items needing to be covered. (IT, Lab support, heating, maintenance, infrastructure, library collections, etc.). There is a lack of understanding about what they are used for and to whom these funds go.

There are some concerns about direct charging grants. A charge back model could be useful.

Gap: Lack of understanding about where and for what RSF is used.
Gap: No RSF is used to support RDM currently.

Recommendation: Look for efficiencies/cost effective methods of distributing RSF
Recommendation: Look to see how other Canadian schools fund RDM

Advisory Services:

Level 2
Aim for Level 3

Lack of awareness around services, though we do offer a number of these services through various people on campus. Different audiences are more aware than others.

Problem – lots for sciences, little for humanities. Lots for quantitative, not so much for qualitative.

Library – Curation, data reuse, consent and open data, preservation, metadata,

Grants Faciliators – grant costing

Creait- Data analysis, pre and post grant guidance and advice.

Acenet/Compute Canada – Visualization, analysis, data mining

Gap: Lack of awareness around services.
Gap: Advisory services for qualitative research.

Recommendation: Continue and expand collaboration between all units who offer training
Recommendation: Include advisory services in communication plan.
Recommendation: Support for humanities is increasing. Continue this trend.

Training:

We would fall between Level 1-2 for both online and face to face training.
Aiming for Level 3

Training available if people seek it. Nothing for credit. The onus for RDM training for students falls to the PI/supervisor. For faculty it falls to personal responsibility.

Training needs to be about the RDM itself as well as the processes of how to do it. Could be included in a Research Methodology course, could be a standalone course, could possibly be integrated into the Academic Integrity Library Credit course that will be developed for Graduate Students.

Gap: Training for students.
Recommendation: RDM and processes be offered for some sort of credit. (in Research Methodologies, Academic Integrity library Credit course to be developed for Graduate students, etc.)

Data Management Planning:

When discussed we were unsure about what the requirement for DMPs in the Tri-Agency Policy would look like. I suspect this discussion may be different now.

We are at Level 1, aiming to be level 2 and eventually level 3

Training for how to write Data Management Plans, how to integrate these into your research proposal/ethics application/grant application needs to happen for students as part of their program. They need to be able to list this as a skill. Faculty can avail of training opportunities that already exist, but these need to be more widely known.

Gap: Mechanism for tracking compliance to original DMP
Gap: Feedback mechanism for DMPs

Recommendation: Create process for tracking compliance of DMP, while understanding that DMPs are living documents.

Gap: Expertise for assessing DMPs for all disciplines.
Recommendation: Library to help create an assessment framework for DMPs

Active Data Management:

Technically we are at level 1, but many do not know what others do, researchers do not know about the services, so we are essentially at level 0. Once Office 365 is widely available, we will be level 1, perhaps 2. Though we technically are at level 1, huge inequalities exist in service depending on who you know, and who provides advice to you.

Collaboration support and Security management will be at level 2 once Office 365 is rolled out.
Note: De-identifying data does not belong in this section.

Gap: No enterprise level collaboration tool
Recommendation: Roll out Office 365 (OneDrive, Teams)

Gap: Lack of awareness of services
Recommendation: Include promotion of services in institutional strategy communication plan

Gap: Services have grown in siloed ways, resulting in a chaotic mishmash of ad hoc solutions.
Recommendation: Create conduits between silos to improve communication and knowledge of services and resources. These conduits need to exist at a high level. There could be a role for the Research IT Governance Committee here.

Appraisal and Risk Assessment
Includes Data Collection Policy; Security, legal and ethical risk assessment; and metadata collection to inform decision making:

Patchy level 1 – depends on the discipline as well as the phase of lifecycle of the data. Aim to get to level 2

There are inequalities between disciplines when looking at data practices. This is seen in areas such as data collection, data storage, data security, risk assessment, and the use of metadata. This all speaks to the need for discipline specific training, especially in the area of metadata as data is required to be findable under the new Tri-Agency policy. Metadata is also extremely important for reasons relating to Intellectual Property.

Gap: Lack of awareness of current discipline specific training
Recommendation: Continue networks of communication like the informal RDM group so that researcher points of contact know about opportunities for training.

Gap: Need more discipline specific training
Recommendation: RDM librarian to include more discipline specific training in guide as well as continue to speak to specific departments.
Recommendation: RDM librarian continue to seek professional development opportunities in this area to provide more discipline specific training on data practices, specifically metadata.

Preservation:

Preservation Planning and Action:
Dataverse and FRDR support level 1
DAI – level 2 but this is not leveraged for a broader audience. This is not a service available to all. Knowledge and tools are there. Not being leveraged for a broader service.

We have some services that adhere to level one for preservation, but these are not widely known about and not able to preserve all types of research data.

Currently no on premise long term preservation for sensitive data.
There will be a long term genetic archive (still in ethics process) that will be available to some. CHIA has the capability to support long term preservation for sensitive data.

Gap: understanding of research data – some researchers, especially those in humanities, are not aware of what constitutes research data
Recommendation: Ensure humanities research data is kept in mind when making any plans for RDM

Gap: Services for preservation (such as resources such as DAI available)
Recommendation: Leverage the tools and knowledge that currently exist to expand our preservation services for research data

Gap: long term preservation for sensitive data
Recommendation: Leverage CHIA for long term preservation for sensitive data

Continuity Support:

Level 0

Gap: Lack of knowledge of Archivmatica project scope
Recommendation: Find out scope of Archivmatica project and continue discussion.

Access and Publishing

Monitoring locally produced datasets:

Level 1
Aim for level 2

Data publishing mandate

Level 1
Services such as Dataverse, FRDR

Level of Data Curation:

Level 1 for Dataverse, FRDR

Discovery:

Level 1 for Dataverse, FRDR

Gap: Knowledge of best practices
Gap: knowledge/time/resources to record metadata, clean data for deposit, etc.

Recommendation: Continue and expand discipline specific training sessions
Recommendation: Continue and expand support for professional development to expand expertise in RDM to provide advisory services

Gap: Incentives for publishing data

Recommendation: Push for data citations to be recognized in the P&T process.

A few overarching gaps and recommendations have come out of the discussions:

Overall Gap: Different departments have different needs in terms of RDM, and are often unaware of those needs.
Overall Recommendation: Template for thinking about RDM at a department level.
Overall Recommendation: Discuss departmental gaps with Research IT governance

Overall Gap: Incentives for good practices in data management
Recommendation: Push for data citations to be recognized in the P&T process.