

Advancing Open Access at the University of Manitoba

Report of the Senate Committee on Libraries Sub-Committee on Advancing Open Access

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Executive Summary

This is a guiding document for the purpose of advancing discussions about and uptake of open scholarship at the University of Manitoba; the sub-committee recognizes that further discussions and consultations will need to take place with stakeholders on and off campus, including Indigenous communities that we partner with on research. Although a fully supported open scholarship framework for the University of Manitoba (UM) requires a conscious culture change at all levels of the university, the transformative value to the university in all areas makes doing so well worth the effort. There are many benefits to be gained from such a change including expanding learning opportunities for students, promoting research excellence, expanding equity, diversity, inclusion, and accessibility at the university, as well as supporting values such as inclusive access, academic freedom, rights retention, and digital preservation; these are further enumerated in the body of the report. Preliminary recommendations to shift to an open scholarship culture include recommendations at the institutional, faculty, and individual level in the areas of:

Learning, Teaching, and Student Support

Recommendations/Goals for the Institution

- Include the adoption of Open Educational Resources (OER) in future strategic and operational planning.
- Identify consistent funding for OER.
- Advocate with the province for more funding directed to OER in institutions through Campus Manitoba or other means.

Recommendations/Goals for Faculties

- Plan for a minimum of 50% of [recommended introductory courses for U1 students](#) as identified in the Academic Calendar to have OER as primary texts within 5 years of the release of this report.
- Support faculty members in the writing, adoption and adaptation of OER and recognize this as a significant contribution during promotion and tenure processes.
- Encourage review of OER as part of professional practice and recognize as a contribution during promotion and tenure process.

Recommendations/Goals for Individuals

- Review OER as part of professional practice.
- When choosing texts for courses, consult the University of Manitoba Libraries (UML) [OER by Discipline Guide](#) and adopt or adapt an OER text.
- Recognize OER as legitimate scholarly work when serving on tenure and promotion committees.
- Promote and share OER with faculty and students.

Research

Recommendations/Goals for the Institution

- Endorse, create, and fund a culture that recognizes and supports open scholarship including FAIR (findable, accessible, interoperable, reusable) principles (Wilkinson et al., 2016).
- Become a signatory to the Declaration for Open Research Assessment ([DORA](#)).

- President, Vice-Presidents, and Board of Governors support, advocate and participate actively in open scholarship efforts through U15, Tri-Agencies, CRKN, and other means.
- President and Vice-President Research and International (VPRI) advocate for more funding for open scholarship and transformative agreements nationally, including for university presses to publish OA materials.
- Encourage faculties and others to provide funding for OA publishing.
- Create and require compliance with an institutional Open Scholarship Policy.
- Support the Libraries in transforming scholarly publishing to a more open model through transformative agreements or future models.

Recommendations/Goals for Faculties and Individuals

- Develop open scholarship policies that encompass FAIR (findable, accessible, interoperable, reusable) principles (Wilkinson et al., 2016) within faculties and departments.
- Outline best practices for open scholarship within faculties and departments.
- Develop a suite of, and support, open research tools appropriate to faculty or department.
- Provide funding for faculty members, students and postdoctoral researchers publishing in OA journals.
- Encourage no-fee OA publishing through MSpace and other repositories.
- Ensure that the tenure and promotion process and other institutional awards/recognition encourage and reward open scholarship.
- Include an open scholarship requirement for internal research funding opportunities (for example: publishing in an open access journal and/or depositing article in MSpace, making research data open).
- Broaden the acceptable and encouraged knowledge mobilization venues in the unit and or discipline; encourage making research and scholarship available outside of publishing in commercial journals.
- Encourage professional societies and their journals to adopt affordable OA policies.

Tenure and Promotion

Recommendations/Goals for the Institution

- Become a signatory to DORA.
- Recognize, accept, and promote scholarly contributions that are open.
- Ensure that engagement with open scholarship is recognized as equivalent to traditional means of knowledge dissemination for institutional awards and recognition.

Recommendations/Goals for Faculties and Individuals

- Ensure that the tenure and promotion processes and other institutional awards/recognition encourage and reward open scholarship.
- Ensure that engagement with open scholarship is recognized as equivalent to traditional means of knowledge dissemination in the tenure and promotion process.
- Ensure that individual units develop strategies to encourage open scholarship.
- Broaden the acceptable knowledge mobilization venues in the unit and or discipline.
- Consider the value and impact of all research outputs using a broad range of measures including qualitative ones.

Further Recommendations

The sub-committee recommends that this report be submitted to the Digital Strategies Project for consideration as part of that project, and to the strategic planning oversight committee for consideration as part of that process. Further, that this report be widely circulated to Senate, the Board of Governors, University of Manitoba Faculty Association (UMFA), University of Manitoba Graduate Students Association (UMGSA), University of Manitoba Students Union (UMSU), within faculties, and to other stakeholders for discussion and consideration of the recommendations. The sub-committee recommends that an Open Scholarship Costing Task Force, reporting to the Provost, should be established within one year of the release of this report to prioritize recommended actions and goals for the university and determine timelines, costs, and cost mitigations. The sub-committee also recommends that, within six months of the release of the report, faculties should develop action plans for open scholarship based on the recommendations for faculties considering factors and constraints within the discipline.

While costs are substantial, it must be recognised that some can be realized by shifting existing spending. As an example, OER development and uptake could be funded by adding a levy on student fees for OER support; while on the surface this represents an additional cost, students would realize significant savings in textbook costs. Similarly, although more difficult to achieve, funding for open publishing could be achieved through pooling funds that are normally spent on article processing charges (whether these are paid from research grants, travel & expense accounts, or other sources) to achieve consistent savings across the university.

Introduction

University of Manitoba (UM) faculty, students (undergraduate and graduate) and administrative staff are working more frequently with open access platforms, publishers, repositories, and resources to improve data acquisition and extend knowledge mobilization and awareness of the research being done at the University of Manitoba. At the same time, granting agencies are increasingly requiring that the products of funded research be made available online without charge to the public, increasing demand for support for open scholarship within the university.

At its meeting on June 18, 2020, the Senate Committee on Libraries created a sub-committee on advancing open access that was charged with creating a framework for open access (or open scholarship) at the University of Manitoba. The sub-committee members recognize that the overall trend in academia over the past two decades has been towards openness, and that the pandemic has accelerated this trend. In its work, the sub-committee considered elements of open access and open scholarship, as well as the commitments the university has made in its strategic plan, to make high-level recommendations for a cultural shift toward more openness in scholarly practices. This document is meant to begin discussions about and increase the adoption of open access and open scholarship at the University of Manitoba. The sub-committee members recognize that additional discussions and consultations will need to be held with stakeholders both on and off campus.

Open access is defined as a set of principles and a range of practices through which research outputs are distributed online, free of access charges or other barriers (Suber, 2015). More broadly, Parsons et al. (2022) define *open scholarship* as:

...an umbrella term that refers to the endeavour to improve openness, integrity, social justice, diversity, equity, inclusivity and accessibility in all areas of scholarly activities. Open scholarship extends the more widely used terms open science and open research to include academic fields beyond the sciences and activities beyond academic research.

Open access and open scholarship are embedded in many of the commitments identified in the University's planning document "Our Shared Future: Building on our Strategic Plan" adopted by the university community in 2021. Open scholarship is an important component of research excellence, anti-racism, expanding learning opportunities for students, Indigenous achievement and engagement and helps to create a more accessible, equitable, diverse, and inclusive university.

In gathering information for the writing of this report, the sub-committee invited experts in open access and open scholarship including publishers, representatives from the Canadian Research Knowledge Network, Campus Manitoba, and librarians. The sub-committee also considered barriers to open access and open scholarship for researchers and distributed and analyzed a survey at the University of Manitoba to gauge awareness and use of open tools, including systems and services available at the university. This information is summarized in Appendices A-F, but the report itself is organized into 3 sections: 1) Learning, Teaching and Student Support; 2) Research; 3) Tenure and Promotion. Each section is organized with background information, a discussion of the value to and costs for the university, and recommendations from the committee for the institution, for faculties and for individuals, including faculty, students and staff. A list of acronyms and abbreviations used throughout the report is in Appendix H.

Learning, Teaching, and Student Support

Background

OER are the main open scholarship vehicle for learning, teaching, and student support at the University of Manitoba, and faculty and students are overwhelming interested in OER being used in their classes (as seen in the results of the survey conducted by the sub-committee found in Appendix F). Massive Online Open Courses (MOOCs) are often presented to general audiences as open scholarship but are often neither open nor scholarship so are not considered here. Academic rigour is intrinsic to the creation of OER as it is with all open scholarship.

In 2021, UMSU surveyed students and received over 1000 responses, with students identifying that their highest priority was adoption of OER, ranking it above more financial aid for students, enhancing online learning platforms, and more mental health supports.

Some statistics (gathered by UMSU):

- 86% of students at U of M have bought a required textbook for a course only to end up using less than 10% of that textbook.
- 20% of undergraduate students have opted to voluntarily withdraw or avoid enrolling in a desired course due to the associated cost of the learning materials for the course.
- The average cost per required textbook across the top 10 most popular introductory courses in terms of applicability across multiple degree programs is \$143.
- The estimated cost of required textbooks for an average first year student at the U of M taking a 30-credit course load is \$1700.

Students' costs are significantly reduced even if they choose to print the OER.

The sub-committee held a discussion on OER with Campus Manitoba (see Appendix E) where the University of Manitoba was described as a leader in OER use and adoption in Manitoba, realizing 73% of the costs savings for post-secondary students in Manitoba.

Value of Open Education Resources

Campus Manitoba described the value of adopting OER at the University of Manitoba as found in:

- Higher enrollment as costs for course materials are contained.
- Better prepared students as OER are available independent of ability to buy a costly textbook.
- Lower withdrawal rate because students are able to keep up with course content.
- OER adoption meets objectives in the *Manitoba Skills, Talent and Knowledge Strategy* (Government of Manitoba, n.d.) because of the ability to edit OER to needs of particular programs increasing quality of student learning and making course content more relevant to the immediate needs of the labour market.
- At UM, 6287 students have been impacted for a savings of \$1.1 million and 7 faculty members using OER, with 1 adaptation completed and 2 in progress in 2021. Increasing adoption leads to greater impact.

Cost of Open Educational Resources

OER are “free” to students, but may require creation, adaptation, peer-review, and production, all of which take faculty time and therefore have a cost attached. Although many OER are available for adaptation for courses that exist at the university, there may not be one suitable for a particular course, or it may need to be adapted to fit the local context, or it may need extensive revision. Faculty release time from teaching is needed to perform these activities, and there may be additional costs in creating visuals and supplementary assessment or other material for the OER. Additionally, this may represent an additional burden to Indigenous faculty, Black and racialized faculty, those with disabilities, and those of marginalized or minoritized genders, sexual identities, religious and culture groups who are asked to contribute or comment on these materials which should be compensated.

Open Ed Manitoba and Campus Manitoba support locating and adopting OER by providing information on their website to locate an OER in specific subjects and support the adaption of OER with a step-by-step guide on their website. They also offer a \$250 honorarium for Manitoba faculty members who review OER. Finally, they provide PressBooks as a shared Manitoba platform for OER.

At the University of Manitoba, a campus wide OER Working Group was established with representation from across the university to facilitate OER use, adaptation, and creation. Subcommittee members discussed their lack of knowledge about OER and this was verified in the survey results found in Appendix F where lack of familiarity with OER emerged as a common theme.

In 2021-22 the UML received one-time funding that enabled the creation of a one-year librarian term position responsible for OER projects including creating a [guide by discipline](#) that is available on the UML website, acquiring a local PressBooks license, raising OER awareness across the university, and working with the Centre for the Advancement of Teaching and Learning (the Centre) on OER.

The UML continues to support OER and PressBooks; but the result of a lack of continuing funding is decreased support for OER and other library services. Similarly, as use of OER by faculty members increases, the same situation would be experienced in the Center as the needs for OER support result in decreased service in other areas if there is no matching increase in funding for these areas.

Therefore additional, continued funding is needed in the form of:

- Grants for release time from teaching similar to UM Scholarship of Teaching and Learning (SOTL) grants to support faculty members in creating or adapting OER;
- Funding to support the acquisition of visual resources for OER and/or the creation of supplementary materials;
- Stable funding with incremental increases as appropriate for an OER Librarian position to support faculty members in OER creation/adaption;
- Stable funding with incremental increases as appropriate for the Centre to support faculty members in OER creation;
- Stable funding to license and support PressBooks and to support faculty in using PressBooks.

Recommended Actions/Goals

The sub-committee recommends the following actions be taken:

Institutionally

- Include the adoption of OER in future strategic and operational planning.
- Identify stable funding for OER with incremental increases as appropriate.
- Advocate with the province for more funding directed to OER in institutions through Campus Manitoba or other means.
- Endorse the Driving OER Sustainability for Student Success ([DOERS3](#)) framework for OER in Tenure and Promotion.
- Present to units on the strategy, value, and process of OER.
- Promote OER to units.

In Faculties

- Plan for a minimum of 50% of [recommended introductory courses for U1 students](#) as identified in the Academic Calendar to have OER as primary texts within 5 years of the release of this report.
- Support faculty members in the adoption and adaptation of OER and recognize this as a significant contribution during promotion and tenure processes.
- Encourage review of OER as part of professional practice and recognize as a contribution during promotion and tenure process.

By Individuals

- Review OER as part of professional practice.
- When choosing texts for courses, consult the UML's [OER by Discipline Guide](#) and adopt or adapt an OER text.
- Recognize OER as legitimate scholarly work when serving on tenure and promotion committees.

Research

Background

Open research/scholarship practices, tools, and platforms are found throughout the research lifecycle. There are a variety of open source and commercial products on the market for openly sharing information including scholarly articles and monographs, datasets, lab books, code, music, and other products of the research process. However, there are costs attached to many of these platforms as well as concerns related to commercial vendors, authority, and ownership of the research itself.

Scholarly publishing is intrinsic to scholarship as a means of disseminating research and is particularly problematic. The current scholarly publishing model is collectively funded by universities in 3 ways: 1) researchers are paid by universities to carry out and publish research, often in the form of scholarly articles; 2) university libraries pay for a subscription to the journal where the research is published; and 3) researchers may pay article processing charges (APCs) to have the article published openly. Besides doing research, faculty members also support commercial publishing through peer-review and serve on the editorial boards of academic journals. There is no compensation from commercial publishers for researchers performing these tasks, although they are often recognized in tenure and promotion processes. Commercial vendors such as Elsevier, Clarivate, and others are posting record profits as the cost for academic journals rise on average 3-5% per year.

Research, and the publishing of scholarly articles, is necessary to get tenure and be promoted, therefore researchers must publish and will choose to publish in the journal which is seen as having the most impact. Generally, access to scholarly articles is available only to those with a subscription to the journal or with access to a library holding a subscription. Alternatively, once an article is accepted to a journal, researchers may also choose to make their articles open to anyone, but this requires them to pay APCs to publish articles ([\\$6290/article to publish in Nature for example](#)). There is no data on how much is paid by Canadian researchers in APCs since these are not paid centrally but from researchers' grants, expense accounts or other means. Scholarly publishing is further complicated by "predatory publishers" who operate as pay-to-publish vendors under the guise of open access journals (see discussion in Appendix B).

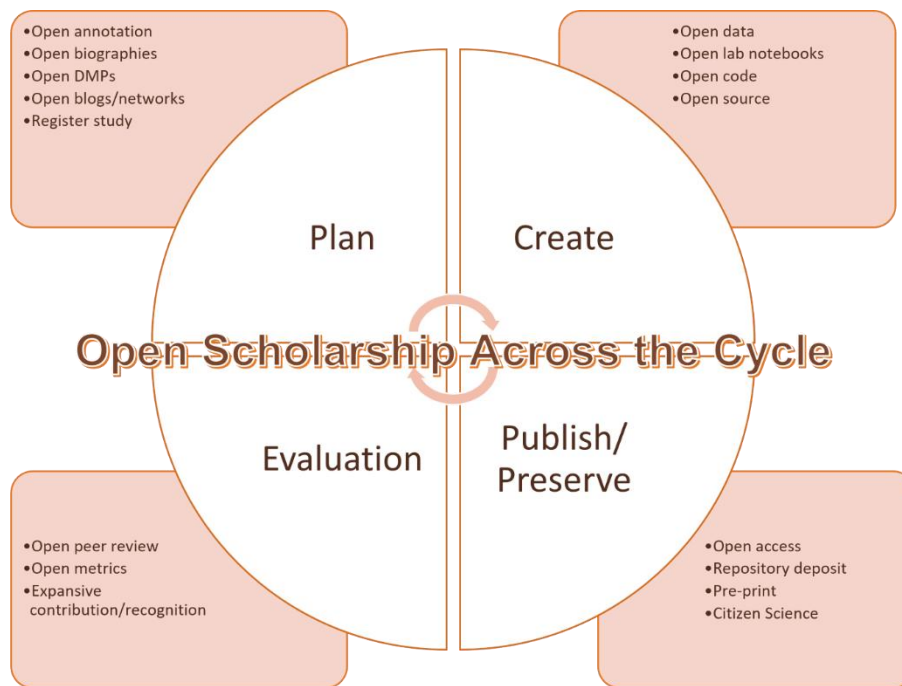
Libraries in research institutions pay through subscriptions for access to the research performed in their institutions and published in scholarly journals. The Canadian Association of Research Libraries 2018-19 reported data shows that 31 Canadian higher education and research libraries collectively spent \$362,913,423 on materials with 77% being spent on subscriptions (Canadian Association of Research Libraries, 2022).

Another concern with the current scholarly publishing model is that as Tri-Agencies and other funders require researchers to publish their research data, commercial vendors see opportunities in providing platforms for that data. The same cycle where universities may pay multiple times in scholarly article publication is being recreated for scholarly data where profits are realized by commercial vendors and labour is performed at research institutions. Additionally, consolidation of publishers and vertical integration of data analytics services, data repositories, and other platforms by commercial vendors is a cause for concern, leaving researchers with fewer choices in making their research available, and less clarity on their rights retention when using commercial platforms.

Open scholarship, as an alternative, allows academic communities to control the platforms for research they produce and to protect the values of the academy such as inclusive access, academic freedom, rights retention, and digital preservation. Open scholarship includes a peer-review process within the platform as seen in the diagram below; open scholarship seeks to disrupt the economic model of scholarly publishing, while maintaining the intellectually rigorous peer review model.

The Committee recognizes the right of First Nations, Metis and Inuit Peoples to self-determination and the right to own, control, access, possess and protect research data created by and with their community (OCAP Principles are one such model). Data sovereignty takes precedent over all other open scholarship considerations.

There are open platforms and products to make the research process more open at every stage. Following is a diagram of the research cycle and opportunities for open scholarship:



It is beyond the purview of this sub-committee to make recommendations for particular open services or platforms at the UM, which may often be discipline-specific, but there are open options available for each of the products of research shown. Disrupting the current model and ensuring that the research output of the UM is available openly to all Manitobans and researchers around the world at the lowest possible cost, while at the same time ensuring that rights are retained by the researcher, is desired by researchers, the University, and funders.

Many universities have policies which provide a legal framework for open scholarship within the university. The sub-committee held a discussion with Joy Kirchner, of York University about their open access policy (see Appendix D) and a draft policy was created for the UM by the Libraries' Open Scholarship Standing Committee (see Appendix D1).

Value of Open Research

The subcommittee has noted that adopting open research at UM would provide value to the university because it:

- Allows communities being studied to have easy access to the results of the study.
- Gives the local community access to information that improves their knowledge on matters important to them, such as public health information and results of research conducted on community land.
- Recognizes the value of First Nations principles of ownership, control, access, and possession (OCAP).
- Allows UM scholarship to be used by communities around the world, building connections that might not otherwise be forged.
- Allows students who have graduated to continue to have access to cutting-edge research in the workplace to inform their professional practice.
- Results in higher citation counts as researchers in more institutions have access to articles, data and other products of research.
- Grants access and enables researchers to reuse data from other studies as appropriate.
- Allows UM researchers to access articles, data, code, and other information that might previously have been unavailable or behind a paywall.
- Provides alternatives to commercial products so researchers have choices in how to disseminate their research.
- Allows researchers to share the products of their research while retaining their rights.
- Fulfills some funders' mandates, particularly the Tri-Agencies', for making research openly available, including data, articles and other products resulting from the research.

Cost of Open Research

The costs of creating an open research environment are found in providing platforms, systems, supports, and human resources that make the products of research openly available, as shown in the diagram above, rather than in the cost of commercial systems. There are existing platforms at the UM available to all researchers that address some aspects of the research cycle, but these systems are not well-known or well-used at UM as found in the survey the subcommittee conducted (see Appendix F).

In general, these systems and supports fall into the categories below.

Plan: Requirements for data management plans (DMPs) on specific grant applications by the Tri-Agencies in Canada has begun. The UM provides support in creating DMPs via a web-based DMP Assistant. UM also supports storage of research data through the [Research Data Storage Finder](#).

Create: Data visualization provides another tool to support the dissemination of research in ways most suited to the target audience, which may be the community, other researchers or policy makers. Platforms such as the GIS Hub and Dataverse at UM Libraries provide this type of support.

Publish: Researchers are increasingly required to publish not just their results as a journal article, but also the data and research outputs (code etc.) used in the research. UML currently supports multiple tools such as MSpace, Dataverse and the Open Journal

System (OJS) to support the sharing of data and publications, including supplemental materials like presentations.

Evaluation: Sharing improves researchers' traditional citation counts and supports credibility of the research by creating research outputs that are transparent and reproducible and therefore re-usable. Researchers are also increasingly being asked to show how their research is being viewed and used by the public and for policy and decision making. Tools like Altmetrics, which UML currently supports, provide a way to illustrate with qualitative data the "real world" impact and reach of the research being conducted.

There are also discipline-specific open tools that are available, and in some instances deposit in them may be required or desirable. The costs for these are often carried by the department, faculty, or the individual faculty member. For example, in the Rady Faculty of Health Sciences, clinical data is stored in the Secure Research Environment (SRE) and some faculties have their own licensed instance of GitLab. Other units such as the Manitoba Centre for Health Policy (MHCP) and the C.H.R. Faculty of Environment, Earth and Resources both provide not only tools for research but support their own discipline-specific data repositories which can be used by researchers and collaborators. There are, however, a number of costs associated with the technology and the human resources required to support these ecosystems (an example of these costs is found in Appendix G). The current total cost to the university of supporting open tools is unknown.

APCs for journals on commercial vendor platforms represent an additional cost for open publishing and the cost of APCs are seen as the biggest barrier to publishing in OA journals by researchers on the sub-committee (also seen in the survey results summarized in Appendix F). APC costs are not tracked at the University of Manitoba because they are often paid out of research grants or travel and expense accounts. At the same time, the UML pays for subscriptions to journals that may include articles by UM researchers who have already paid APCs, therefore UM pays twice for a research article. The UML is working through CRKN and others to negotiate transformational agreements (TAs) where both APCs and subscriptions are included in one price (see Appendix A for a discussion of CRKN's approach to TAs). However, there are concerns as the funds for the APC costs in TAs are outside the UML budget and, often, the UM budget as they are paid by researchers directly as stated above. Additionally, once the Libraries has signed one of these agreements, it is very difficult to cancel due to budget constraints because it will affect UM researchers' ability to publish in, as well as read, journals. The UML also negotiates discounts to APCs as part of their agreements with commercial vendors whenever possible. However, TAs have not changed the model, they have simply shifted the center of funding and are unsustainable for most libraries.

The sub-committee also looked at open monograph publishing which is very important in Arts & Humanities (see Appendix C for a summary of the discussion with the University of Manitoba Press). Most university presses are self-funding and generally not-for-profit. Publishing open monographs affects the revenue stream by approximately 40% so funding from outside agencies or within institutions would be necessary to sustain university press open monograph publishing. A sustainable model for open monographs has yet to be developed.

Therefore, associated costs for open research are not straightforward, but might include:

- Stable funding with incremental increases as appropriate for or reallocation of human resources for increased data management planning support and article and data deposit.
- Stable funding with incremental increases as appropriate for internal tools to support open publishing (e.g. automatic harvesting of open access articles on commercial publisher sites).
- Stable funding with incremental increases as appropriate for human resources to support open publishing (e.g. ensuring affiliation information is correct, loading documents to MSpace)
- Reallocation/reimagining of funding to support transformative agreements (TAs) and payment of APCs or future alternatives to TAs within the UML acquisitions budget.
- Continued additional funding or reallocation of funds to support open practices in research within faculties and departments.
- Funding or priority shift for librarians to ensure that all faculty members at UM are aware of open alternatives to current practices.
- Continued additional funding for human resources to perform tasks associated with open research to ensure compliance with Tri-Agency and other funders (ex. curation and upload of data sets and setting permissions in DataVerse)

Recommended Actions/Goals

The sub-committee recommends the following actions to advance open research at the UM:

Institutionally

- Endorse, create, and fund a culture that recognizes and supports open scholarship including FAIR (findable, accessible, interoperable, reusable) principles (Wilkinson et al., 2016).
- Become a signatory to the Declaration for Open Research Assessment (DORA).
- President, Vice-Presidents, and Board of Governors support, advocate and participate actively in open scholarship efforts through U15, Tri-Agencies, CRKN, and other means.
- President and Vice-President Research and International (VPRI) advocate for more funding for open scholarship and transformative agreements nationally, including for university presses to publish OA materials.
- Encourage faculties and others to provide funding for OA publishing.
- Create and require compliance with an institutional Open Scholarship Policy.
- Support the Libraries in transforming scholarly publishing to a more open model through transformative agreements or future models.

In Faculties/By Individuals

- Develop open scholarship policies that encompass FAIR (findable, accessible, interoperable, reusable) principles (Wilkinson et al., 2016) within faculties and departments.
- Outline best practices for open scholarship within faculties and departments.
- Develop a suite of, and support, open research tools appropriate to faculty or department.
- Provide funding for faculty members, students and postdoctoral researchers publishing in OA journals.
- Encourage no-fee OA publishing through MSpace and other repositories.

- Ensure that the tenure and promotion process and other institutional awards/recognition encourage and reward open scholarship.
- Include an open scholarship requirement for internal research funding opportunities (for example: publishing in an open access journal and/or depositing article in MSpace, making research data open).
- Broaden the acceptable and encouraged knowledge mobilization venues in the unit and or discipline; encourage making research and scholarship available outside of publishing in commercial journals.
- Encourage professional societies and their journals to adopt affordable OA policies.

Tenure and Promotion

Background

Research assessment encompasses considerations of value, recognition, and contribution to a field of study and the larger body of academic scholarship and global concerns. Traditional scholarship has established mechanisms of recognition, award and impact based on collectively understood modes of authority and authenticity. Commercial publishers have worked within this system to build and reinforce these traditions and norms of recognition, award, and impact. Consequently, many quantitative measures of impact and quality have become a product of the commercial publishing system. Even qualitative evaluations are reinforced by research products produced by authoritative bodies, largely supported by commercial publishers. Open scholarship challenges these norms by breaking the positive feedback loop of the imprimatur of authority granted by the commercial publisher and academe's understanding of quality. Post Plan S and the implementation of the Research Excellence Framework and its ilk in many European countries, many European academic institutions are in a re-evaluation phase of research assessment, understanding that traditional norms of evaluation no longer work due to the large-scale adoption of open scholarship.

This adoption includes the expansion of contribution modalities and incorporation of collaboration and reuse. OERs, data, including datasets and types of data (tabular, graphical etc.), new forms of expression due to digital expression such as software code, digital humanities, as well as less visible academic work such as peer review are all considered contribution modalities of open scholarship. Because reuse is a core value of open scholarship there is an inherent weighting of collaborative effort over that of the individual. The digital environment of scholarship and its ecosystem, built on relationships between persistent identifiers and platforms enable new measures and values of collaborations and their outputs. Other new forms of quantitative measures include alternative metrics (altmetrics) which draw on user data, public engagement through social media networks, and other similar indicators. Beyond a collective understanding of open scholarship, its principles and possibilities, together with the accompanying quantitative and qualitative considerations, each discipline/faculty and/or department will need to determine its own parameters and scale of quality and impact.

DORA addresses some of the issues identified.

Recommended Actions/Goals

The sub-committee recommends the following actions to support open scholarship at the UM:

Institutionally

- Become a signatory to DORA.
- Recognize, accept, and promote scholarly contributions that are open.
- Ensure that engagement with open scholarship is recognized as equivalent to traditional means of knowledge dissemination for institutional awards and recognition.
- In Faculties/By Individuals Ensure that the tenure and promotion processes and other institutional awards/recognition encourage and reward open scholarship.
- Ensure that engagement with open scholarship is recognized as equivalent to traditional means of knowledge dissemination in the tenure and promotion process.

- Ensure that individual units develop strategies to encourage open scholarship.
- Broaden the acceptable knowledge mobilization venues in the unit and or discipline.
- Consider the value and impact of all research outputs using a broad range of measures including qualitative ones.

Conclusion

The AOA sub-committee spent over a year examining evidence and discussing the implications to the UM community of adopting open scholarship and sees clear benefits for the institution, for faculty members, for students, and for other stakeholders in open scholarship. Although advancing open scholarship at the UM is a culture shift, open scholarship allows communities to connect whether they are communities within institutions, between institutions, or the institution and its local community. Open scholarship must be espoused at all levels of the institution to realize the benefits outlined in this report and summarized below since learning, teaching, and student support, research, and tenure and promotion are all inter-dependent in the same way that universities, faculty, students, and communities are inter-dependent.

The University will benefit from open scholarship by seeing wider dissemination of its research output which can lead to increased funding opportunities, more partnerships, higher rankings and greater community impact. Open scholarship will also demonstrate support for the principles of equity, diversity, and inclusion as well as academic freedom as open scholarship evens the playing field for researchers and consumers of research.

Faculty members will benefit from open scholarship through having greater freedom to publish in a wider range of knowledge mobilization venues that will be valued as part of the tenure and promotion process and in institutional awards and recognition, and their scholarship will be accessible by a much wider audience than through traditional scholarly publishing. This may increase the impact of their research and lead to more opportunities for partnerships and grants.

Students will benefit from open scholarship through lowered costs of educational materials and will have increased ability to participate in research and scholarship. Graduate students will have more opportunities to publish research openly at low or no cost, giving them valuable experience and building their publication record. Open publications allow them to disseminate their research more broadly reaching a wider audience, which in turn may lead to more opportunities for collaboration and grants.

Indigenous and other communities will have access to information that affects their communities, their health, and their environment. The First Nations OCAP principles can be incorporated into open scholarship allowing communities to control research by and about themselves and determine what is open and what is held by the community.

The AOA sub-committee makes the following recommendations to advance open scholarship to achieve these benefits:

1. Learning, Teaching and Student Support

The institution Include the adoption of OER in future strategic and operational planning, identify stable funding for OER with incremental increases as appropriate, advocate with the province for more funding directed to OER in institutions through Campus Manitoba or other means, endorse the Driving OER Sustainability for Student Success ([DOERS3](#)) framework for OER in Tenure and Promotion. The *institution* will also present to units on the strategy, value, and process of OER and promote OER to units.

Faculties plan for a minimum of 50% of [recommended introductory courses for U1 students](#) as identified in the Academic Calendar to have OER as primary texts within 5 years of the release of this report, support faculty members in the adoption and adaptation of OER and recognize this as a significant contribution during promotion and tenure process. *Faculties* will encourage review of OER as part of professional practice and recognize as a contribution during promotion and tenure process.

Individuals will review OER as part of professional practice. When choosing texts for courses, *individuals* consult the Libraries' OER by Discipline Guide and adopt or adapt an OER text and recognize OER as legitimate scholarly work when serving on tenure and promotion committees.

2. Research

The *institution* will endorse, create, and fund a culture that recognizes and supports open scholarship including FAIR principles and become a signatory to DORA. The President, Vice-Presidents, and Board of Governors will support, advocate and participate actively in open scholarship efforts through U15, Tri-Agencies, CRKN, and other means. The President and Vice-President Research and International (VPRI) will advocate for more funding for open scholarship and transformative agreements nationally, including for university presses to publish OA materials, encourage faculties and others to provide funding for OA publishing, create and require compliance with an institutional Open Scholarship Policy, support the Libraries in transforming scholarly publishing to a more open model through transformative agreements or future models.

Faculties and individuals will develop open scholarship policies that encompass FAIR (findable, accessible, interoperable, reusable) principles within faculties and departments, outline best practices for open scholarship within faculties and departments and develop a suite of, and support, open research tools appropriate to faculty or department.

Faculties and individuals will provide funding for faculty members, students and postdoctoral researchers publishing in OA journals, encourage no-fee OA publishing through MSpace and other repositories, and ensure that the tenure and promotion process and other institutional awards/recognition encourage and reward open scholarship. *Faculties and individuals* will include an open scholarship requirement for internal research funding opportunities, broaden the acceptable and encouraged knowledge mobilization venues in the unit and or discipline and encourage professional societies and their journals to adopt affordable OA policies.

3. Tenure and Promotion

The *institution* will become a signatory to DORA and recognize, accept, and promote scholarly contributions that are open.

Faculties and individuals will ensure that the tenure and promotion processes and other institutional awards/recognition encourage and reward open scholarship, broaden the acceptable knowledge mobilization venues in the unit and or discipline and consider the value and impact of all research outputs using a broad range of measures including qualitative ones.

Appendix A: Presentation Summary - Transformational Vendor/Library Agreements

Claire Appavoo, Executive Director, and Craig Olsvik, Senior Manager, Licensing and Member Services, from the Canadian Research Knowledge Network (CRKN) presented to the sub-committee on CRKN's OA strategy and transformative agreements. CRKN represents eighty-one Canadian academic libraries in large-scale licensing and content acquisition, collaborates to expand and enrich the digital knowledge ecosystem in Canada and the world, advocates for fair and sustainable access to public research and content, supports digital infrastructure required to preserve and access critical Canadian content and mobilizes their membership to transform scholarly communications in Canada. Their strategic plan for 2019-2024 articulates three strategic goals:

- Transform scholarly communications
- Develop and foster partnerships
- Collaborative advocacy.

The speakers described multiple pathways to open access including partnership models such as those found with Coalition Publica, SCOAP, SCOSS, and PLOS, green open access (deposit in institutional repositories such as MSpace or disciplinary repositories such as arXiv.org), transformative agreements, lowering the cost of article processing charges (APCs) and reducing the cost of commercial subscription agreements.

A transformative agreement is defined in the ESAC Registry as “an umbrella term describing those agreements negotiated between institutions (libraries, national, and regional consortia) and publishers in which former subscription expenditures are repurposed to support open access publishing, thus transforming the business model underlying scholarly journal publishing, gradually and definitively shifting from one based on toll access (subscription) to one in which publishers are remunerated a fair price for their open access publishing services.” Many countries are negotiating transformative agreements.

Almost half of Canadian researchers are publishing in Elsevier, SpringerNature and Wiley, with the vast majority of articles published in hybrid or subscription journals. Approximately 15% of Canadian research is published in OA journals. This means that most of Canadian research is only available behind a subscription pay-wall, leading to decreased discoverability and lower citation counts. Publishing in fully OA journals is expensive, and this is why CRKN is working on transformative agreements. When looking at possible TAs with publishers, CRKN considers the subscription cost, the publication output from member institutions or Canadian researchers, whether the publisher is for-profit or non-profit and whether a TA with the publisher has been successfully negotiated by other consortia. An example is the CRKN-Sage agreement, the first TA negotiated by CRKN. The legacy Sage license had been in place since 2007 and included a 40% APC discount negotiated for the final years of the agreement, 2018-2020. The total cost across member institutions was US \$5.3 million. A TA was negotiated for 2021-2023 with APCs waived for all hybrid journal (where some content is OA) articles published by CRKN-affiliated corresponding authors, a 40% discount for gold OA journals (where all content is OA). The cost for this license was US \$5.5 million with 1 large institution joining accounting for the increase in cost) and 3% cost increases in 2022 and 2023.

Appendix B: Presentation Summary - Predatory Publishers

Janet Rothney presented a short refresher on Predatory Publishing to the subcommittee, to ensure all members had the same understanding of the relationship between predatory and open publishing.

“Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices.” (Grudniewicz et al., 2019, p. 211)

Predatory publishers take advantage of the Open Access pay-to-publish model. Predatory publishers do not represent all Open Access publishers, but the two concepts have been conflated in some circles over the years. Predatory publishing impacts authors in a number of ways; financial exploitation, poor review and editing services if any are provided at all, poor findability and limited retraction or re-publishing opportunities; and reputation impacts for both authors and those who cite works that are later discovered to be predatory.

Predatory practices target uninformed researchers, especially graduate students and early professionals. Late career academics are also profiled, with offers of editorial board seats or even just having their names applied to boards they have not agreed to sit on, in order to give credit to a title. There is also the scenario of "highjacked" titles; a formerly legitimate title is sometimes purchased by a predatory publishing group who then transforms the journal into a predatory model - this can catch even well-informed researchers.

Some clues to predatory behaviour include;

- Unsolicited email invitations
- No presence in major databases
- Immediate article acceptance policies/practices
- Restrictive or unclear retraction policies
- False impact factor scores, ISSNs, or editorial boards
- Poor papers published in the past, or “empty” journal titles (having no previous issues or no articles listed in index)
- Title not included in OA directories like DOAJ (not a failsafe!)
- Low Article Processing Charge (APC) fees (also not a failsafe)

While the factors listed may be indicators of predatory behaviour, researchers must employ their best judgement. Consider also that some OA publications do not look as professional as a major-publisher title, because they are run by associations, who may not have the formatting or marketing expertise of a big publishing house. Some OA titles may not have a presence in major databases, if they are new or difficult to categorize. In the end, there is no definitive list of predatory or of legitimate publishers or titles.

The presentation concluded with a walk-through of how the presenter assessed titles for predatory practices, referencing the [Think Check Submit Checklist](#) and a [recent UML training session](#).

Appendix C: Presentation Summary - Monograph Publishing

Monographs are important scholarly outputs, particularly in the humanities and social sciences. Monograph publishing, in contrast to journal publishing, requires a longer time period for developing, publishing and marketing. Monograph publishing takes two to four years plus at least one year of marketing. The University of Manitoba Press gave a presentation to the Subcommittee on scholarly book publishing and open access. Costs to produce a monograph at the University of Manitoba Press range from \$27,000 to \$28,000. The University of Manitoba Press has published a few open access monographs. Open access books will impact the revenue stream as sales represent 40% of the revenue from the University of Manitoba Press. Digital and open access books can incorporate additional types of media beyond the traditional text with new software tools like Manifold and RavenSpace.

Appendix D: Presentation Summary - York University Open Access Policy

Joy Kirchner, Dean of Libraries at York University presented to the sub-committee on their open access policy found at <https://www.library.yorku.ca/web/research-learn/research/oapublishing/york-university-senate-policy-on-open-access/>

Ms. Kirchner discussed the benefits of a policy for researchers, including providing a legal framework that supports author rights, enhanced visibility and impact of researchers' work and how OA policies help normalize OA practices across an institution. She described the benefits for institutions as collecting and preserving the institution's research output, increasing the visibility and accelerating the institution's research output/profile, and allowing for the use and re-use of an institution's research output in terms of indicators and metrics. She stated that evidence shows that effective policies can increase rates of deposit and accelerate adoption of OA.

In working towards an OA policy, Ms. Kirshner recommends completing an environmental scan of the campus, including understanding current attitudes and uptake of open access and determining where open access has particular traction. She noted that some faculties/schools/departments at York had adopted OA policies prior to an institutional policy being adopted.

Aligning with major university plans is important in working to implement a university OA policy. At York, an Open Access and Open Data Steering Committee was formed to engage in broad discussions with stakeholders to coordinate campus-wide education on OA and data management and to articulate a framework and coordinated service models to support faculty. It also worked to create a wider forum for discussion and consideration on changes to the system of scholarship, sustainability of current economic models of scholarship, access to publicly funded research, issues surrounding author rights in the digital age, and new scholarly distribution systems and other connected open movements. (<http://www.library.yorku.ca/web/open>)

Discussions at York centered around discussions about benefits or issues faculty members saw arising from an OA policy, information about specific disciplines that might improve any policy or OA publishing initiatives at York and stories about successes and challenges arising from faculty members' personal experiences with OA. They were very clear that OA policy would not tell researchers where they can publish or provide a one-size-fits-all framework but would be designed to be adapted and built upon in line with discipline- and field-specific practices.

Appendix D.1: Proposed Draft of OA Policy for the University of Manitoba

Note: the following is an excerpt from the draft (v2.1 April 2022) of which only the first two sections of the policy are included as these are the most substantive related to the topic of open access. The footnotes indicated in this appendix have not been included.

Part I Reason for Policy

1.0 University of Manitoba is committed to research excellence, which includes making our research widely accessible while protecting the intellectual property rights of its authors and honouring our responsibilities to our Indigenous partners. This policy acknowledges:

1.1.1. The need to adopt, adapt to, and improve open access scholarship in keeping with institutional, provincial, national and global trends and initiatives.

1.1.2 Technological innovations continually offer new opportunities for both creation and dissemination of scholarship.

1.1.3. The principles of open access align with University values in building community and foster connections both locally and internationally, while increasing the visibility and access to research conducted at the University.

1.1.4. Freely sharing research with the public also reflects University of Manitoba's responsibility and commitment to provide access to research as a publicly funded institution.

1.2. In 2016, the Tri-Agency Open Access Policy on Publications was formally adopted by three major national research funding councils (the Medical Research Council of Canada (MRC, now the Canadian Institutes of Health Research, CIHR), the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Natural Sciences and Engineering Research Council of Canada (NSERC)). The objective of the policy is to improve access to the results of Agency-funded research, and to increase the dissemination and exchange of research results; the mandate outlines the specific obligations of grant recipients to meet these objectives. The principles of open scholarship encapsulated by the Open Access Policy have been expanded with the Government of Canada's Roadmap for Open Science, Tri-Agency Statement of Principles on Digital Data Management and the Tri-Agency Research Data Management Policy. It is the policy of University of Manitoba to comply in full with Canadian federal granting agencies' requirements through this Policy on Open Access Scholarship.

1.3. The principles of open scholarship are inherent in the University commitment to the principles of accessibility, equity, diversity and inclusivity. Open scholarly work facilitates a diversity of contribution, enables attribution for new forms of work and voices, and activating global engagement of work not defined by or inhibited by commercial paywalls. These inherent qualities contribute to an organic fostering of connections between scholars and the wider community, inside and outside the University. It is conducive to the promotion and support of global initiatives such as citizen science and demonstrable in impactful worldwide benefits such as the development of the COVID-19 vaccine.

Part II **Policy Content**

2.0 **Definitions.** In the context of this policy, the following terms are defined as:

(a) **Open Access** refers to scholarly works that are created and/or provided in a digital medium via the Internet (online), free of charge, and free of most copyright and licensing restrictions (but still requires creator attribution).

(b) **Scholarship** is scholarly works that either contribute to or are the outcome of academic exploration and/or research. Typical outputs have been peer-reviewed and are presented as articles, books or book chapters, and conference papers, presentations, and posters. However, open scholarship principles expand beyond these typical outputs to include many others forms of works, including but not limited to, data and datasets (i.e., modular, tabular, graphical), images (i.e., produced by camera or other imaging instrumentation, artworks), sound (i.e., musical instrumentation or vocalization, interviews, presentations), software, coding and various written works (i.e., media commentary, reports, ephemeral writings).

(c) **Open Repositories** are electronic services designed to preserve and provide non-commercial access to scholarship. Access to individual works is governed by the author and/or depositors and, largely and by default, to provide a public unrestricted archive to these works. Repositories may be maintained by an institution for the benefit of its own authors and researchers, or be open to deposits from any researcher in a subject area, and governed by recognized, established, and emerging global standards¹. such as those outlined in the TRUST principles and aggregators such as the Federated Research Data Repository (FRDR) Discovery, and OpenAIRE Explore.

2.1 **Scope.** This policy applies to scholarship and publications that are:

2.1.1 Subject to Tri-Agency funding and/or Legislation that requires scholarship to be made available open access.

2.1.2. Non Tri-Agency-funded scholarship and publications, except those that are subject to ethical, legal and other frameworks that restrict open access or, at the discretion of the

¹ Although standards and indicators of quality are evolving rapidly, as of 2022 some commonly accepted global sources include the TRUST principles (<https://doi.org/10.1038/s41597-020-0486-7>) and aggregators such as the Federated Research Data Repository (FRDR) Discovery (<https://www.frdr-dfdr.ca/repo/>), and OpenAIRE Explore (<https://explore.openaire.eu>).

principal scholar, investigator and/or the research team, opts not to make the research/scholarship open access

2.2 **Statement.** As a publicly funded institution, the University of Manitoba is committed to ensuring the greatest possible scholarly and public access to the scholarship produced by the University community. In addition to securing the public benefit of such access, this policy is intended to serve the interests of researchers by promoting the greater reach and preservation of works and establishing norms and expectations around rights of authors and users in the context of rapidly changing technologies and publishing practices.

2.3 **Academic Freedom.** The University values and protects the academic freedom of its researchers. It is not the function of this policy to alter the rights or privileges of individuals as defined by collective agreements or University Policies.

2.4 **Guidelines.** The *Senate Policy on Open Access Scholarship* supports:

- The development and provision of resources to help faculty members benefit from the increased visibility of their scholarship resulting from open access;
- The deposit of scholarship in an open access digital repository.
- The researcher's individual choice on where they can publish, alongside supporting decisions that encourage free access; and
- Discipline- and field-specific conventions that encourage tailored choices regarding open access.

Faculty members are urged to enhance the visibility and preservation of all research-related outputs and the democratization of knowledge by making these types of works, or excerpts of these works, openly accessible.

2.5 **Roles and Responsibilities.** In accordance with its values and this policy, the University of Manitoba commits to make scholarship produced under its auspices available via open access. The commitment is realized by the collaboration of the University and its scholarly community through a conscious choice to participate in the process of making its scholarship available without access restrictions, when at all possible.

For greater specificity:

- The University of Manitoba continues to provide trusted open access repositories optimized for online discoverability, for preservation and dissemination of works produced by University of Manitoba faculty members, students and affiliated researchers, and provide the appropriate supports, including publishing, preservation and author rights consultation services, to enable its full utilization;
- Faculty members and other researchers affiliated with the University of Manitoba publish in an open access publication or deposit their scholarship in a trusted open access repository (see Footnote 1 for further description of methods to assess a repository for trustworthiness);

- Faculty members, staff and graduate students are encouraged to know their rights as authors/content creators, and to retain copyright of their scholarship when negotiating publication of their works. This includes understanding open access policies and procedures of their publisher. Such policies and procedures set out terms and conditions under which open access can be provided, such as: the version of a work; when the work can be made available; time delays after publication; and required credit statements or links to the original publication.

Under the direction of the University Librarian, University of Manitoba Libraries are charged with the responsibility of oversight of University repositories. Oversight includes the role of preservation and dissemination of scholarship submitted to the repository to assist the University scholars in meeting the open access policy and, if applicable, compliance with Tri-Agency open access requirements. The Libraries shall consult with the Vice-President of Research and Innovation Office as appropriate in fulfilling this role.

Appendix E: Presentation Summary - Open Educational Resources

Campus Manitoba presented to the sub-committee on Open Educational Resources (OER), which are defined as “any type of educational materials that are in the public domain or introduced with an open license. The nature of these open materials means that anyone can legally and freely copy, use, adapt and re-share them. OERs range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video and animation.”

The ability to edit OER to needs of particular programs increases quality of student learning and makes course content more relevant to the immediate needs of the labour market (objectives in the MB government Skills, Talent and Knowledge Strategy). OER promote student savings, advanced pedagogy, tailoring info to the region, students being involved in adaption of learning resources, EDI. OER courses see a 29% reduction in withdrawals. British Columbia (BC) is the leader in OER, with 24.1 million in savings for textbooks compared to MB's 1.6 million. BC is working on open homework resources and have aimed at high-enrollment, high-impact courses for OER. Saskatchewan sees \$6.4 million in student savings as the government supports faculty in development of OER.

In MB, there are 9600 students impacted through [MB Open Textbook initiative](#) (as reported to Campus Manitoba) averaging \$1.6 million in savings. Over 40 faculty members are contributing to OERs either adapting or adopting. In 2021 two adaptations were completed and three were in progress. At U of M 6287 students have been impacted for a savings of \$1.1 million and 7 faculty members using OER, with 1 adaptation completed and 2 in progress. U of M faculty account for 73% of savings from OER in Manitoba demonstrating broad impact of OER use here. A computer science faculty member is leading Manitoba in OER adoption.

Some statistics (gathered by UMSU):

- 86% of students at U of M have sunk money into a required textbook for a course only to end up using less than 10% of that textbook
- 1/5 undergraduate students have opted to voluntarily withdraw or avoid enrolling in a desired course due to the associated cost of learning materials for the course
- \$143 is the average cost per required textbook across the top 10 most popular intro courses in terms of applicability across multiple degree programs
- \$1700 is the estimated cost of required textbooks for an average first year student at the U of M taking a 30-credit course load

Students costs are significantly reduced even if they choose to print the OER. Students at U of M saw adoption of OER as their highest priority for UMSU in 2021, above more financial aid for students, enhancing online learning platforms and more mental health supports.

Appendix F: Open Access Survey Analysis

Purpose: A survey was conducted to gather baseline information on Open Access (OA) experience and attitudes from across the University of Manitoba community.

Design: The survey was based on published OA surveys with local areas of concern added as a result of discussions with the AOA committee.

Highlights from the Survey:

1. Broad representation of Professors, students and staff from across university faculties.
2. Responses from all demographics revealed that the university research community do not regularly deposit their data in open repositories.
3. MSpace, the university's institutional repository, is not being used as much as it possibly could to host open access publications from faculty and students.
4. Faculty and students were overwhelmingly interested in favor of Open Educational Resources (OERs) being used for education.
5. Article Processing Charges (APCs) continue to be a barrier to faculty and students publishing in gold-open access journals. APCs are typically paid by departmental funding, grant funds or by the authors themselves.
6. Survey respondents indicated that when they do deposit in open repositories, they would like to see that their publications are being noticed and having an impact.
7. Among the many potential supports for open access noted in the survey, funding to support APCs, assistance in preparing publications and data for deposit, and guidance for meeting funder and publishers open access requirements ranked highly with respondents.
8. Survey analysis revealed there are some immediate next steps to be taken in terms of promoting open access more directly to those faculties underrepresented in the survey, as well as better communication with faculty and students on the purpose and availability of MSpace, OJS, PressBooks and other open access platforms at the university.

Appendix G: Example of Open Repository Costs

Approximate costs for managing a multi-disciplinary data repository - Canadian Watershed Information Network (CanWIN) at UM as of 2022

Maintenance	
Staff	\$269,000.00
Platform maintenance, support and development	\$124,800.00
Administration	\$15,000.00
Curation and data documentation	
Curation lifecycle per dataset	\$1,440.00
Historical data curation per dataset	\$2,275.00
Visualization	
Integration of new datastream	\$7,200.00
Creation of new data dashboard	\$6,000.00

Appendix H: List of Abbreviations and Acronyms

APCs	Article Processing Charge(s)
CRKN	Canadian Research Knowledge Network
Dataverse	An open source repository for research data. UM Dataverse is part of the Dataverse project conceived by Harvard University.
DMP	Data Management Plan
DOERS3	Driving OER Sustainability for Student Success
DORA	Declaration for Open Research Assessment
EDI	Equity, Diversity and Inclusion
ESAC	Efficiency and Standards for Article Charges – an open community of information professionals that focuses on efficiency and standards for article processing fees.
FAIR Principles	Guiding principles to make data F indable, A ccessible, I nteroperable, and R eusable.
GIS Hub	A platform to explore and download University of Manitoba’s licensed geospatial data.
MSpace	The University of Manitoba Institutional Repository. MSpace is used to acquire, preserve and provide open access to the scholarly works of the University of Manitoba faculty and students.
OA	Open Access
OCAP	First Nations Ownership, Control, Access and Possession Principles
OER	Open Educational Resource(s) – Teaching and learning resources that are free to reuse, retain, revise, remix and redistribute.
OJS	Open Journal Systems – Open source software for publishing online journals.
Plan S	Open Access publishing plan supported by cOAlition S, an international consortium of researching funding organizations.
PLOS	PLOS is a nonprofit, Open Access publisher.
PressBooks	PressBooks is an authoring and publishing platform for books.
SCOAP	Sponsoring Consortium for Open Access Publishing in Particle Physics
SCOSS	Global Sustainability Coalition for Open Science Services
SOTL	Scholarship of Teaching of Learning
TAs	Transformational Agreements
Tri-Agencies	Three major national research funding councils: Canadian Institutes of Health Research (CIHR), Social Sciences and Humanities Research Council of Canada (SSHRC) and the National Sciences and Engineering Research Council of Canada (NSERC)
U15	U15 Group of Canadian Research Universities
UM	University of Manitoba
UMFA	University of Manitoba Faculty Association
UMGSA	University of Manitoba Graduate Students Association
UML	University of Manitoba Libraries
UMSU	University of Manitoba Students' Union

VPRI	Vice-President (Research and International)
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