Report of the Ad Hoc University Committee on Sustainable Library Collections

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1. Executive Summary

The Ad Hoc University Committee on Sustainable Library Collections (the Committee) was launched in March 2019 by the Provost to address concerns about the sustainability of library collections at the University of Ottawa arising from two factors: the rapid evolution of the scholarly environment and continuing significant increases in collections costs.

Academic libraries have a deep history of collaboration and have capitalized on their culture of collaboration to develop means through which library users may access print collections across institutions, to build shared infrastructure to enhance access to growing volumes of digital collections, and to create large purchasing consortia to leverage a collective negotiating block with major publishers. To illustrate the extent to which large scale library collaboration enables libraries to manage rapidly growing collections costs, the Canadian Research Knowledge Network (formed in 1999) currently manages 54 licenses with a total value of approximately $125 million a year on behalf of its 79 members, 76 of which are universities, representing 94% of the public universities in Canada. In 2013, an external analysis concluded that “CRKN is an effective and efficient representative for its members, achieving excellent cost control that generally matches or exceeds comparable consortia.”¹ In 2019, 47% of uOttawa’s acquisitions, valued at $7.9 million CAD, were purchased through consortial negotiations. Even with significant collaboration among libraries, the rapid evolution of the scholarly environment continues to require a concerted strategy which involves all sectors of the university engaged in the academic mission.

In the last decade, scholarly publishing, for both technological and economic reasons, has been transforming and sustainable collections is used to express the need for academic libraries to respond to these continuing changes. Implicit in the notion of sustainability is that library collections must grow in the same measure as research production and user expectations increase.

The Committee held five meetings to discuss Library collections and their assessment, trends in scholarly publication, Open Access and its economic models, scholars’ research practices, and student needs (See Appendix B). Recurrent themes in these discussions included:

- Sustainable collections,
- Confidence in the Library’s stewardship of the collections,
- Access to collections is critical,
- Continuing increases in collections costs are unsustainable,
- Major transformation of scholarly publishing,
- Support for principles of Open Access and recognition of the challenges of implementation,
- Importance of the sustainability of French-language collections,
- Discomfort with the current uses of the journal impact factor,

¹ https://www.crkn-rcdr.ca/en/history-crkn
• Student success correlates with library use.

The Committee recognized that scholarly publishing and library collections development of French language materials are subject to unique pressures unlike those found in the English scholarly publishing and dissemination sphere. For this reason, a separate working group was created to investigate and make specific recommendations that address scholarly publishing and dissemination in the French language and that align with uOttawa’s bilingualism mandate (see Appendix C).

The Committee stressed the critical importance of access to strong library collections and expressed confidence in the Library’s collections policies and budget management. Recognizing that University funding sources cannot sustain the annual increases currently imposed by major scholarly publishers, the Committee endorsed the need to work together with external agencies and organizations for changes to ensure sustainability of academic library collections.

If budget requirements should necessitate cancellations, the Committee emphasized the necessity of working closely with faculty and involving users in collection reviews to ensure that cuts are made with the least impact possible.

The major transformation of scholarly research and publishing in the last few decades resulting from digital technology, commercialization of scholarly publishing, economic conditions, and changing expectations of researchers and students was highlighted in the Committee’s work. Both the importance and the challenges of Open Access were recognized. Discomfort with the use of the journal impact factor in grant and tenure processes developed as a theme as the members of the Committee reviewed the relationship between high costs of high impact journals, and the use of these ranking systems to reward researchers and universities.

The seven recommendations made by the Ad Hoc University Committee on Sustainable Library Collections are intended to ensure the Library’s ability to meet uOttawa students’ and professors’ needs for access to the scholarly record in the context of rapidly changing practices in research, publishing, and information dissemination.

1. Develop a uOttawa Scholarly Information Roadmap
2. Take Collective Action for Open Scholarship
3. Ensure Sustainability of Library Collections through the Scholarly Publishing Transition
4. Promote French-language Scholarly Publishing
5. Develop an Affordable Learning Materials Strategy
6. Increase Transparency Around University Library Collections
7. Establish a Library Advisory Committee

The Committee’s Report reviews the recommendations and themes from the meetings. Detailed information in the appendices includes the Committee’s mandate and a summary of Committee discussions.
2. Recurrent Themes in Meetings

2.1. Sustainable Collections

In the last decade, scholarly publishing, for both technological and economic reasons, has been transforming, and sustainable collections is used to express the need for academic libraries to respond to these continuing changes. Implicit in the notion of sustainability is that library collections must grow in the same measure as research production and user expectations increase. Factors that have led to this include:

- The impact of digital technology on teaching and research,
- The increasing expertise of university libraries in developing and supporting information technology applications,
- The oligopoly of international academic publishers,
- Financial constraints on university budgets,
- Expectations of researchers and students for instant access to an ever increasing and diverse body of knowledge,
- Open Access growth and movements for Open Science and Open Scholarship.

For libraries, sustainability means ensuring appropriate and lasting access to both legacy and current collections, working within the constraints of university budgets, and using the vast potential of the digital environment, to advance equity and equality of access to information for users. The transformation of scholarly communications demands a library that can sustain the needs of its users and assure lasting access to information.

2.2. Confidence in the Library’s Stewardship of the Collections

The Committee expressed confidence in the Library’s collection development approaches and its management and spending decisions for acquisitions, a confidence affirmed by feedback from a number of departments. With the support of the University, the Library is able to provide access to collections which fulfill the needs of researchers and students while managing its budget and the quality of its collecting choices.

The Committee also suggested that the Library is a natural campus advocate for equity and equality of information access and has a leadership role on campus to advance access to research knowledge.

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2 More information about Open Science at Foster. Open scholarship encompasses all aspects of Open Access, open data and open educational resources in both teaching and research.
required by, and created by, the university community. The Committee supported the Library’s developing role in Open Access, suggesting that this was a core Library role. The Library fulfills this function in several ways, including enabling depositing of uOttawa publications in the Institutional Repository, uO Research.

2.3. Access to Collections is Critical

The Committee reported that faculty agreed continuing access to current library collections was critical. Sustainable collections require growth in access, mirroring the growth in research specializations, quantity of publications, and the University’s research aspirations. Members affirmed the need for continuing financial support to assure library collections continue to match research and teaching needs of faculty and learning needs of students.

In addition to the pressure to maintain comprehensive journal collections, differing disciplinary needs and increases in the variety and quantity of scholarship challenge library collection budgets. Monographs, which are dominant in the humanities, as well as publications from smaller scholarly, professional or non-commercial societies and publishers are critical to sustain scholarly communications in all disciplines.

Successful research and career progress depend upon comprehensive library collections; cancellations of major journal collections would make researchers less able to complete research. Senior faculty reflected that they have greater access to needed articles and literature through their well-developed networks, but that junior researchers and graduate students would not have similar means and would experience a greater negative impact should journal cancellations occur.

2.4. Continuing Increases in Collections Costs Are Unsustainable

The Committee reported that faculty clearly understood that present continuing increases in collection costs were untenable in the longer term. University funding sources cannot sustain the continuing annual increases imposed by major scholarly publishers. Faculty are divided between those who are willing to take a stand against major commercial publishers and cancel big deals, and those who question the extent to which this would be a wise approach for uOttawa, considering the local impact on students and researchers alike. Canadian academic libraries work collaboratively, through organizations such as CRKN and CARL, and are not represented by a single national negotiating agency as in Sweden or Norway. Nor is Canada a large enough research sector internationally to be a strong

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3 “A Big Deal is a comprehensive licensing agreement in which a library or library consortium agrees to buy electronic access to all or a large portion of a publisher’s journals for a cost based on expenditures for journals already subscribed to by the institution(s) plus an access fee” Frazier, K. (2005). What’s the Big Deal? Serials Librarian. 48(1/2). 49-59.
negotiator. Canada accounts for only 3% of the world’s published articles; the US for 25% (with UC alone contributing 10% of US research output), and the UK and Germany each account for 6 and 7%, respectively.\(^4\)\(^5\) The Committee was agreed on the need for collaboration with funding agencies and other organizations and institutions to transition towards a more open and balanced scholarly publishing system.

Economic pressures have resulted in libraries cancelling major serial collections. The University of California (UC) system ceased negotiations with Elsevier, and this resulted in loss of access to Elsevier journals by UC researchers and students in summer 2019. The impetus behind the Committee’s work was to develop strategies that could equip the University to manage such an occurrence, if budgets should require it. If cancellations should be necessary, the Committee stressed the necessity of working closely with faculty and involving users in collection reviews to ensure that cuts are made with the least impact possible. The members recognized the importance of the Library sharing collections budget information and developing more communication channels with faculty and students to assure campus awareness of these challenges.

### 2.5. Major Transformation of Scholarly Publishing

The Committee agreed that major transformation in scholarly publishing is ongoing, and on the need for external agencies and organizations to work together for positive change in scholarly publishing. Coordinated activity and engagement of Canadian universities, funding agencies, and other major players is needed, as well as connection with global movements. European agencies and libraries have been active in Open Science advancement and may provide models for Canadian developments. The U15 Universities, Universities Canada, and library organizations such as CRKN, CARL, and the Ontario Council of University Libraries (OCUL) all are major players in the evolution of research dissemination and preservation in Canada.

Funding agencies play a large role in how researchers are recognized and rewarded in changing behaviour, and are in a position to encourage changes, such as advancing Open Science values. The policies of the Tri-Agency, including requirements for Open Access, can have significant leverage on researchers’ behaviours.

Although the Committee expressed the tension that exists among researchers, some of whom are invested in conserving traditional scholarly publishing systems, and others who wish to embrace the transformation in scholarly publishing, the members noted the importance of change arising from, and being grounded within research and disciplinary community(ies). Disciplinary differences in research

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and publishing preferences and incentives, including establishing the value of research, must be acknowledged. Active engagement with research communities is necessary to ensure changes are responsive to disciplinary, and local, needs and practices.

The Committee acknowledged the importance of the leadership of uOttawa in these changes especially in French language publishing (both research and pedagogy) and through collective action in our capacity as a major Canadian research institution.

2.6. Support for Principles of Open Access and Recognition of the Challenges of Implementation

Committee members support the principles of Open Access (OA) and recognize that it is an important component to realizing sustainable collections.

The Committee discussed progress already made in advancing OA. For instance,

- Granting and funding agencies, both in Canada and elsewhere, mandate OA publication, and NIH and Wellcome Trust require researchers to prove their OA practices to receive funding.
- CARL with Europe’s OpenAIRE is developing a dashboard to allow funders and institutions to aggregate information about funded research outcomes and to monitor OA compliance.
- CRKN licenses about $125 million worth of collections and has negotiated Author Publishing Charge (APC) discounts to reduce OA publishing costs for researchers in member institutions.
- The introduction of the 2.5% Commitment⁶, where academic libraries commit to contribute 2.5% of their total budget to support common infrastructure needed to give rise to the Open Scholarship.
- OA monographic publishing is increasing, and university presses have been leaders in exploring sustainable distribution models.

However, implementation presents many issues: chief among them is that OA has not yet been demonstrated to result in cost-savings for institutions. The widespread use of APCs in fields, such as science and medicine, adds an extra cost to the university, funding agency, or individual researcher. In addition, OA publication may be more onerous for the researcher because of copyediting and formatting requirements, functions typically carried out by commercial publishers. The value-added services provided by commercial publishers are desirable, and there is no consensus on how these services may be replaced in an OA environment, or how they might be funded.

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⁶ The 2.5% Commitment.  
https://scholarworks.iupui.edu/bitstream/handle/1805/14063/The%202.5%25%20Commitment.pdf?sequence=1&isAllowed=y
The Committee recognized that successful OA initiatives exist and stressed the importance of looking at funding models other than APCs. Institutional and other research repositories, such as preprint servers, provide less costly models for OA and have been accepted in some disciplines. Other no-fee OA publications are successful by using new technology, engaging support of disciplinary research communities, and exploring shared funding initiatives.

An even larger question remains about what sustainable scholarly publishing costs. A lack of transparency in the costs of scholarly publishing and the support systems that provide access and preservation exists for both OA and commercial publication streams.

### 2.7. Importance of the Sustainability of the French-language Collections

The status of scholarly publishing in French is both unique and fragile. The Working Group on Scholarly Publishing and Dissemination in the French Language (Working Group) was created to examine this situation in greater detail. The percentage of scholarly journals published in French amounts to only 6% of total worldwide production—and only 3% of open access publications. In this sharply delineated market, French-language scholarly monographs are published by university presses and commercial publishers. These players are few, small and very often operate as not-for-profit enterprises. They also provide a very limited number of digital books to university libraries compared to the situation in English. This matter must be addressed. Furthermore, French-language textbooks that reflect the Canadian reality are rare.

The Working Group proposes a few possible solutions to guide the University of Ottawa in fulfilling its mission in relation to Francophone researchers and students and the Francophone community of Ontario. The Working Group’s first finding is: the transition to open access by the Francophone sector requires a different approach than for the Anglophone sector. The various suppliers, publishers and other players in the French publishing world must be encouraged. And any draconian change that affects them could increase their vulnerability, rather than cement their sustainability and outreach.

The general recommendations are:

- Pursue and enhance support for French-language research and publishing at uOttawa.
- Maintain the purchasing power of French-language scientific journals, monographs and other documents.

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7 Voir note 8.
• Collaborate on implementing the recommendations of the Action Plan for the Francophonie\(^8\) at the University of Ottawa concerning the objectives of the University’s Ad Hoc University Committee on Sustainable Library Collections, such as:
  - Allocate the resources necessary to create a program for publishing university textbooks in French, in collaboration with Francophone publishers, including University of Ottawa Press (p. 5),
  - Provide faculty members with editing tools to publish in the other official language, and fund open access to publications in French (p. 5).

The Working Group hopes that these recommendations will further strengthen and energize French-language scholarly publishing and dissemination, while taking account of the transition to open access.

2.8. Discomfort with Current Uses of the Journal Impact Factor

The Committee recognized that the journal impact factor (JIF), originally intended as a measure for collection management, has become widely used in research evaluation. Although a well-known journal title is often seen as a proxy for the quality of its individual articles, in fact the JIF of a journal does not signal that each single piece of research within it is necessarily a high impact piece of work.

World university ranking systems depend upon publication rates in high impact journals, and to an extent, a high JIF has been conflated with prestige. Although members of the committee acknowledged the necessity of peer review in maintaining standards, and generally had trust in peer review among experts in the same field, they felt discomfort especially with the extent to which the JIF is used in tenure and grant applications, since it risked the reputation of a journal being more significant than the actual quality of research. This topic has relevance to collections sustainability, since reliance on high JIFs has led to increasing prices of highly ranked titles. There was interest expressed in institutional participation in DORA and the Leiden Initiative.

These conversations also led to discussions of new formats of scholarship, their form and dissemination, and their acceptance by the recognition structures that support research funding and career paths. The diversity of formats for research output which are enabled through digital publication create challenges to accepted standards and approaches in determining research value.

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\(^8\) Un plan d’action pour la francophonie à l’université d’Ottawa.
2.9. Student Success Correlates with Library Use

The importance of student access to excellent library resources is a truism confirmed by recent research demonstrating a strong correlation between student success rates and access to library resources\(^9\). It was noted that students use a wide variety of information, from research information and overviews to specific course support. Often access to these materials is needed immediately, something that comprehensive collections make possible. Costs of textbooks and course materials are often prohibitive, and research suggests that costs of textbooks are reflected in students’ course choices.

The Committee agreed that Open Access initiatives should enable student participation and address their specific learning needs. The development of Open Educational Resources (OER) at uOttawa and cooperatively in the province should be an important university priority. The Committee recognized that uOttawa could play a leadership role in the provision of French language course materials in an OER context. The engagement of the Library in facilitating student use of Open Access resources was also suggested by the Committee.

3. Recommendations

3.1. Develop a uOttawa Scholarly Information Roadmap

Develop a Scholarly Information roadmap (2020-2025) with the goal of expanding access to scholarly information centred on uOttawa researchers and responding to uOttawa's academic mission, including areas of research focus, program needs, bilingualism specifically through enhancing support for French-language research and publishing at uOttawa, and Transformation 2030. One means of increasing access to scholarly information is Open Access (OA). The University could build on its existing OA statement and work being done by the Canadian Association of Research Libraries (CARL), the Canadian Research Knowledge Network (CRKN) and the Scholarly Publishing and Academic Resources Coalition (SPARC).

This recommendation will be co-sponsored by the Provost and the VP Research, led by a steering committee made up of researchers across the faculties, and facilitated by the Library.

3.2. Take Collective Action for Open Scholarship

Ensure University participation in collective action to support a transition to wide access to scholarly output. The University of Ottawa holds status as a member of the U15, a top ten Canadian research intensive institution, and located in the national capital of a G7 country. It must take more action both nationally and internationally to develop a collective agenda for sustainable scholarly publishing. For instance:

- Work with national and international partners towards a balanced negotiating stance with commercial publishers.
- Influence granting agencies to increase incentives and lower barriers to encourage OA publishing.
- Influence policy makers in funding open infrastructure development to sustain and accelerate a transition to OA of research contributions in all forms.

Equally important will be ensuring that new developments are accepted by the recognition structures that support research funding and career paths. This will allow the importance placed on journal-based assessment measures for the evaluation of institutions and researchers to be reduced (e.g. DORA).

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10 DORA: San Francisco Declaration on Research Assessment. [https://sfdora.org/read/](https://sfdora.org/read/)
Leiden Initiative\textsuperscript{11}). This topic has relevance to collections sustainability, as reliance on high JIFs has led to publishers increasing prices of highly ranked titles.

\textit{This recommendation will be sponsored by the President, supported by uOttawa’s senior academic leadership, and facilitated by the Library.}

3.3. Ensure Sustainability of Library Collections through the Scholarly Publishing Transition

Ensure that resources are available to support the Library and the University through the transition of the scholarly publishing landscape. While recognizing that continuing increases in collection budgets are untenable in the long term, the Committee expressed clearly the need to continue to increase collections access to support the growth of research and teaching, while strategies for containing costs are developed. Maintain the purchasing power of French-language scientific journals, monographs and other documents.

\textit{This recommendation will be sponsored by the Provost, led by the University Librarian and Vice Provost, who will be supported by the Deputy Provost, Academic Planning and Budgets.}

3.4. Promote French-language Scholarly Publishing

Pursue and enhance support for French-language research and publishing at uOttawa. Maintain the purchasing power of French-language scientific journals, monographs and other documents. Encourage the development of new French-language documentary collections. Contribute to supporting the development of French-language open access publications by participating in relevant initiatives with internal and external partners. Collaborate with existing groups whose Francophonie-related objectives align with the objectives of the Ad Hoc University Committee on Sustainable Library Collections.

\textit{This recommendation will be sponsored by the Provost and led by the Library in association with the Office of the Vice-President, Research and University of Ottawa Press.}

\textsuperscript{11} Leiden Manifesto for Research Metrics.  
3.5. Develop an Affordable Learning Materials Strategy

Develop an affordable learning materials strategy to improve student experience. Capitalize on uOttawa’s strengths to contribute to Open Education Resources (OER) development for broad benefit, such as uOttawa areas of specialization and French language learning materials.

*This recommendation will be jointly sponsored by the Vice-Provost (Academic Affairs), Vice-President (Student Life), and University Librarian and Vice-Provost, led by a working group and facilitated by the Library.*

3.6. Increase Transparency Around University Library Collections

Increase transparency around Library practices for ensuring appropriate and sustainable collections aligned with teaching and research needs. This includes increasing awareness and visibility of collections policies, practices, and expenditures, and providing rich information about the economic dynamics in scholarly publishing.

*This recommendation will be sponsored by the University Librarian and Vice Provost and led by the Associate University Librarians of Content and Access and of Open Scholarship and Digital Initiatives.*

3.7. Establish a Library Advisory Committee

Establish a Library advisory committee with a mandate to provide input on the Library’s collections and services to support research and teaching and on library approaches for sustainable collections. The committee can also advise the library on strategies to best engage with students and researchers.

*This recommendation will be sponsored by the University Librarian and Vice-Provost, led by a committee with representation from Faculties and student groups, TLSS, and the OVPR, and facilitated by the Library.*
Appendix A - Committee Mandate & Membership

Committee Mandate

The Ad Hoc University Committee on Sustainable Library Collections will be charged with examining the situation in scholarly publishing, the impact of the decreasing affordability of journal subscription pricing (the big deals), and the potential impact of library collection cuts on research and learning at the University, and with making recommendations to ensure the best possible support for our researchers and students in their research and learning activities.

The Committee will also recommend a strategy to support the library to be able to meet students’ and professors’ needs for the years to come in a context of rapidly changing knowledge dissemination practices, emerging scholarly publishing infrastructure, and longer-term sustainable access to the scholarly record.

The work of the committee will launch in March 2019 and will:

- Examine the scholarly publishing situation in Canada along with global trends
- Assess the impact of these trends on the University of Ottawa
- Document the current use of library collections and expectations for the future
- Examine current strategies for library acquisitions and analyse the impact on research and learning at the University

The committee will consider the following questions within the context of uOttawa’s academic mission:

- In order to achieve the vision set out in Imagine 2030, what should be the university’s overall strategy to capitalize on the evolving scholarly publishing environment?
- What constitutes “sustainable collections” which are essential to support uOttawa’s teaching, learning and research activities? What criteria and methods should the library consider employing when making decisions for collections development?

Committee Membership

- Talia Chung, University Librarian and Vice-Provost (Knowledge Systems), Chair
- Michael Downey, CMM, Faculty of Medicine (Biomed researcher)
- Jeff Keillor, CHM, Faculty of Science (STEM researcher)
- Paul-Eugène Parent, Math and Statistics, Faculty of Science, (STEM researcher)
- Martin Meunier, Anthropologie et sociologie, URC francophonie (SSH researcher)
- Constance Crompton, Communications, Faculty of Arts (SSH researcher)
- David Moher, Epidemiology, Faculty of Medicine, University Research Chair in Systematic Reviews (CRCs and/or URCS)
Committee Notes

- The U15 Group of Canadian Research Universities has issued a Statement on Sustainable Publishing, and the work of this Committee will be relevant to uOttawa participation in this U15 initiative.

- The Committee recognized that acquiring French language materials was a high priority, with some special challenges for the Library, and a subgroup was created to investigate and make specific recommendations that address directly sustainability for uOttawa’s bilingual mandate (see Appendix C).

- Reflecting on the differing information needs of the faculties and programs at uOttawa and recognizing that not all faculties and programs could be represented around the table, the Committee agreed on the importance of its recommendations being sensitive to these differences.

The Committee met five times beginning in March 2019 (see Appendix B: Committee Perspectives) and the report, with recommendations, was presented to the Provost in December 2019.
Appendix B - Committee Perspectives on Collections Sustainability

1. Collections at uOttawa

In its first meeting, the Committee reviewed the policies, priorities and management of collections at uOttawa. The Library Collections provide the foundation for the academic mission of the University, and acquisition criteria include relevance to the University’s research and teaching priorities, significance and long-term value, as well as availability and appropriateness of format.

Faculty stressed the importance of continuing access to the breadth and depth of local collections, especially journals, for tenure and grant writing. Local collections are particularly important for career progress of young researchers, since they may not have established collegial networks as an alternative to local availability of information.

With the increasing dominance of digital content in academic libraries (uOttawa spent 73% of its budget on digital materials in 2017-18), libraries have enlarged their collections focus from stewardship of local, mostly print materials, to ensuring access through resource-sharing networks and licensing practices. Although academic libraries prefer to acquire content permanently, they also consider leasing materials. Libraries are collaborating to build systems and networks that facilitate loading and preservation of content provincially or nationally, to ensure permanent shared access.

The Library’s strategies for acquiring French material reflect the high priority it places on the acquisition of French scholarship. French publishing, because it is a smaller industry, with fewer and smaller publishers closer to their communities, must be approached differently. Collection expenditure benchmarks of unilingual library peers have also to be viewed in light of these differences in the uOttawa Library’s collecting priorities.

Collections expenditures for academic libraries have increased far above the inflation index, as illustrated by a graph of expenditures for 1986 - 2015, by the Association of Research Libraries (ARL) (Appendix D: Expenditure Trends). uOttawa is a member of this group of major North American research libraries. The graph charts a 521% increase in expenditures among members for ongoing serials and other electronic resources, compared with a consumer price index increase of 118%. This increase reflects both rising costs of information and increases in the amount of research information published.

Since uOttawa spends about 70% of its budget on US and foreign publications, the weakness of the Canadian dollar can create considerable pressure on the budget, and the University has provided
indexing funding to cover some of these costs. In addition to exchange rates, key pricing issues for libraries include:

- Inflation rates in commercial publishing (5 – 6% for journals annually),
- Consolidation amongst commercial scholarly publishers,
- Increases in the volume and variety of global research output,
- The added costs of systems and platforms to support the diversity and growth in digital information.

Disciplinary differences in publishing as well as scholarly practices and preferences are recognized in collecting priorities. In Arts and Social Sciences, monographs are essential for academic success; in the STEM disciplines, journal articles are the standard. The production and availability of materials varies greatly among disciplines and professional schools. Costs also vary enormously from one area to another for all formats and must be factored into library acquisition budgets to ensure collection acquisitions are balanced among the competing needs of faculties and programs. The increase of inter- and multi-disciplinary teams and research practices also influence collecting priorities.

2. Collections Assessment

The Committee, as part of its mandate to identify sustainable collections, reviewed how collections are assessed. Quantitative measures may employ user-based measures such as circulation and usage, or more commonly for electronic resources, cost-per-use measures. Qualitative assessments, exemplified by a recent uOttawa Faculty Survey, include user observations, opinion surveys, and focus groups. Committee members recognized the complexity of evaluating the value of collections, given users’ widely differing requirements and behaviours, and the variety and diversity of formats in academic libraries.

The 2016 uOttawa survey of professors and graduate students confirmed that library collections are vital for their research, teaching, and learning, and expressed these users’ dismay at the potential loss of access to information if collections were cut.

This faculty survey was part of a CRKN Journal Usage Project, which looked at usage and value of large journal packages for member libraries. Half of the journal titles subscribed to at uOttawa (31,811) were considered priority, based upon citation counts, usage, or faculty mentions in this Project. Analysis by uOttawa staff suggested that individual subscriptions just to these priority journals would exceed the costs paid for the journal packages in which they were included; and that is before the operating costs of processing and making accessible this volume of journals is factored in. Several Canadian universities, including Université de Montréal, Memorial University and Université Laval, used similar information and analysis in deciding to cancel or reduce big deal agreements.
The CRKN Journal Value Analytics initiative provides annual usage data for journal packages as an aid to evaluate the value of products that may be up for renewal. In 2017, the overall average cost per use of the four major Big Deal agreements (Elsevier, Sage, Springer and Wiley) at uOttawa was $2.16, compared to $1.97 for other similar sized institutions. Such variations among institutional costs reflect differing patterns of usage by researchers and students at large Canadian universities. These levels of average cost per use generally demonstrate good value for a package, but require interpretation bearing in mind institutional needs and local users’ preferences.

COUNTER statistics, which are uniform industry standards for electronic resource usage, must be interpreted within the institutional context. Researchers may use a primary journal in their field only occasionally; assigned course readings may cause a spike in usage of a journal. A reasonable cost per use is also resource or discipline specific: a journal in philosophy may have fewer uses than a similar one in biology but be just as essential to its users.

The connection between journal availability and the tenure process was highlighted in the Committee discussion of value, because of the perception that a high reputation (and therefore usually high cost) journal delivers a quality article. The result is pressure on the library to maintain large publishers’ journal packages, where high reputation journals tend to reside.

3. Scholarly Publishing Trends

In the English language scholarly publishing environment, a large segment of scholarly publishing is big business: five publishers control about 50% of the market share in research publishing. The resulting market consolidation puts smaller scholarly and professional societies, university presses and other non-commercial scholarly publishers at risk. In this market, subscription prices and content creation costs are generally not related – in much scholarly publishing, the question seems rather ‘what will the market bear?’

According to The STM 2018 Report, growth in the number of research journals has accelerated to 5% per year (from 3%), as a result of real-time research growth and rising numbers of researchers. (See Appendix E: Growth of Journals). There are now some 33,000 active peer-reviewed English language journals, and the broader STM publishing market is worth $25.7 billion.

Disciplines differ in their needs for and habits of communications, and this has influenced the differing rates in use of print and adoption of digital formats. Although the arts and humanities generally


privilege print formats, digitization has transformed access to rare primary sources and research possibilities for both researchers and students. The digital transformation began in the nineties with scientific journals, but in this decade, even in the humanities, the journal article has become increasingly the primary means of communication.

Diversity of formats is enabled by digital technology, and, in addition to journals, reports, and monographs in both print and electronic formats, researchers use:

- Streaming video and audio,
- Numeric data,
- Digital humanities datasets and software,
- Teaching and learning online course materials,
- Research data,
- Indexes and subject databases.

Academic library collections have become more diverse, and services have been challenged by the complexities of access to these multiple formats.

‘Big deals,’ in which library consortia (or individual libraries) negotiate access to complete journal collections, originally provided cost effective ways for libraries to provide comprehensive access to electronic journals, but have fallen out of favour for several reasons:

- Budgetary: rising annual costs of these collections,
- Policy: lack of flexibility in making collection decisions,
- Systemic: these all-inclusive deals have created conditions for the consolidation of the scholarly publishing market, to the detriment of smaller scholarly publishers,
- Societal: widespread recognition that the results of publicly funded research should be freely available.

Committee members noted the importance of continuing support for smaller presses and society journals, which are threatened by commercialization and consolidation in the scholarly market but remain critical for sustainable scholarly communications in many disciplines.

The bilingual status of uOttawa creates significant collection needs for French language materials, which exhibit different patterns in the transition to digital publishing. Specialized staff and collection tools are required to support the cataloguing of French language collections.

Generally, libraries negotiate perpetual access rights to digital content that is purchased, so older content continues to be available even if titles are cancelled. Digital repositories developed by library consortia, such as Scholar’s Portal, are necessary insurance that access to cancelled journals continues in
the long term. Content access is also provided through interlibrary loans, ‘pay per view’ subsidies, and other library services.

Recent big deal cancellations, such as those at Université de Montréal, University of California (Elsevier), Norway (Elsevier), etc., suggest that costs of acquiring large publisher collections of journals are no longer sustainable, and alternative forms of access to the scholarly literature are needed, encouraging consideration of Open Access and other less costly ways of distributing scientific information. Because Canadian academic libraries support and mirror their parent institutions, acquiring national and local scholarship is a collecting priority. At the same time, Canadian researchers work in an international context, and Canadian libraries are highly integrated into international scholarly publishing. National and local support for publishing research is an indicator of a healthy research enterprise, and Canadian academic libraries actively support and acquire information published in Canada. Indeed, in the digital context, academic libraries have become active players in scholarly publishing, by maintaining local repositories, collaborating with university presses, and exploring licensing options that support Canadian scholarship.

4. Open Access

Open Access (OA) as a movement to make scientific research freely available has existed since the early 2000s, although many researchers freely shared their research in digital formats since the seventies. OA as a form of publishing and as an aspiration is now a complex and significant addition to the scholarly publishing environment.

The first OA publishing venues were low cost portals supported by universities and research centres. A number of disciplinary repositories (e.g. ArXiv in Math) have a long history, and an accepted role in research recognition. Although disciplinary practices and preferences limit the spread of such repositories, institutional repositories, such as uO Research at uOttawa, are well-developed, often library-led, efforts that ensure local research is freely available.

OA publishing, despite its aspirations, in the last decade has become a huge industry, in which commercial publishers are firmly embedded. The entry of big business is only partly a result of funding agency policies, particularly in Europe, mandating the publication of funded research in OA venues. Commercial publishers, concerned about loss of market share, look for opportunities to monetize OA, either for single articles or complete journals.

Issues for OA publishing include:

- Reputational questions, both in disciplinary acceptance of OA publishing and in the appearance of ‘predatory publishers’,
Peer review practices, including differing disciplinary needs, and exploration of other models, such as community and open peer review,
- The role of funding agency policies such as mandates, compliance policies, and funding support,
- Lack of transparency for pricing models, including article processing charges,
- Additional complexity for researchers in preparing and managing charges, editing and production of OA publications.

In discussing the Canadian context, the Committee noted that, although the Tri-Agency has mandated OA, it doesn’t provide specific funds for publishing this way. Since there is no enforcement of this mandate, researchers may choose not to use funding to support OA charges or to explore free alternatives.

No-fee based OA publishing initiatives include:

- Cooperatives and collaborations,
- Shared library-publisher partnerships,
- Scholar-led and disciplinary initiatives.

These initiatives often use volunteers, aim to involve the academy in the publishing process, and are anchored within disciplinary contexts. Canadian academic libraries have become active players in scholarly publishing through enterprises such as Érudit and Public Knowledge Project (PKP) that support OA. uOttawa Library works with 15 peer reviewed journals to publish content on Open Journals Systems, an open source publishing platform hosted by Scholar’s Portal.

OA monograph publishing has developed more slowly, because of slower adoption rates for electronic monographs, a high proportion of relatively small publishers in the scholarly book business, and different business models for books. A number of university presses are exploring options for OA publishing, including the uOttawa Press.

Disciplinary differences among the medical sciences, natural and technical sciences, social sciences, and humanities, and also within these disciplines, have significant influence on the adoption and practices of OA, according to differing:

- Author behaviour and attitudes,
- Publisher behavior and attitudes,
- Infrastructure of scholarly communication,
- Structural and institutional factors.

In Mathematics, ArXiv is now recognized within the community as a legitimate publication vehicle; in other fields, repository deposits may not be recognized as formal publications. Funding agencies and
universities have not developed standards that reflect the changing patterns of publication within disciplines.

Despite disciplinary issues, the principle of free access to research information is broadly accepted by governments, funding agencies, and universities. European countries have been leaders in advancing OA scholarship. In Canada, the U15 universities include OA as an essential part of scholarly communications. Many funding agencies, including the Tri-Agencies, mandate researchers to use OA venues for publishing research, including institutional repositories. The uOttawa Library invested over $330,000 in OA initiatives in 2018-19.

5. Economic Models of Open Access Publishing

The Committee looked closely at the economics of Open Access (OA) in its considerations of sustainability of information. An Article Processing Charge (APC) has become the preferred method of OA pricing for commercial publishers and requires the payment of a fee at the time of acceptance to publish an article with OA. Such fees are charged for fully OA journals or for hybrid journals, which are subscription-based journals where authors may pay a fee to allow OA to an article. This charge brings the author into a market where transactions have generally been between publishers (producers) and libraries (consumers on behalf of faculty). Estimates of how many journals use an APC range between 16% and 23%; they are generally concentrated in the better funded science disciplines.

Although the need for an APC may be legitimate, fair compensation amounts are not clear or agreed, and fees range from a few hundreds of dollars to several thousand. APCs do not necessarily reflect the funding and economic realities of different disciplines, and variations in APCs can limit choices of where to publish. In less well funded areas such as the social sciences, researchers may avoid OA journals that charge APCs.

The effect of funding agencies mandating OA publication has been to contribute to the profit margins for commercial publishers charging APCs, and generally these payments are not reflected in lower subscription costs to libraries. The effect has been termed ‘double-dipping,’ referring to universities paying twice for content, once through APCs and again through subscriptions. Lack of cost transparency is an issue for APCs, since publishers do not reveal how such charges are derived or applied.

Subscription journal publishing includes large-scale distribution, indexing, and subscription management services and systems that are vital to scholarly communications, and legitimately add to costs of publication. OA journals need to be integrated into such systems. Lack of cost transparency generally in scholarly publishing makes it difficult to assess how these services can be funded in OA contexts.

Because APCs and other publication costs, such as page charges, are collected in many ways on campuses, total costs to institutions for such publication subsidies are unknown. At uOttawa, the
faculty, department, or individual might pay an APC, all ultimately coming from university or research funds. Library collections costs include subscriptions to journals that offer OA in exchange for APCs, but institutional payments for APCs may not be factored into an institution’s subscription prices. Managing these payments challenges university and publisher accounting systems.

The Committee recognized that no-fee based OA publishing flourishes in several disciplines and specializations and stressed the importance of continuing to advance such enterprises. No fee-based OA publishing covers costs in other ways than charging authors, through subsidies from universities, societies, foundations or government agencies, or revenues from members or other publishing ventures.

These OA initiatives tend to use newer entrants, allowing for more agility, and responsiveness to new technology and changes in social practices. No-fee based OA scholarship also promotes and recognizes the support and participation of the disciplinary community and its contributions.

6. Scholars’ Practices

Scholars and researchers work within a system that developed during post-WWII social and educational changes, including:

- Rapid growth of universities,
- Increased government funding,
- Specialization of research,
- Demographic increases,
- Commercialization of scholarly publishing.

All scholars function within a balance between collaboration and competition. While sharing is intrinsic to the culture of research, researchers work in a reward system, competing for funding, status, and recognition. Universities also function in a similar complex balance between collaboration and recognition, which in turn influences scholars’ practices.

Disciplinary differences are manifest in research practices, as well as in preferences for published output. Disciplines have different views on the function served by peer review, on preferences for publication formats, use of technology, and attitudes to how sharing and Open Access (OA) is practiced. Scholarly recognition structures are often challenged by these widening variations among disciplines.

Commercialization has made ownership and control of research output a complex responsibility and requires scholars to have knowledge of copyright and control of research outputs. Open Science, of which OA is a part, is a reaction from within research communities against increasing commercialization
of research and aspires to the practice of science that facilitates collaboration and sharing and ensures research data and methods are freely available.

The Committee recognized that researchers need broad access to literature as an intrinsic part of their research. They routinely consult many articles during a research project but may choose to read only a select few as a result of their surveys of the literature. Digital access has supported and encouraged this practice, such that it is a basic requirement for research.

Growth in interdisciplinarity and multidisciplinary approaches has also increased the need to survey the literature widely. The comprehensive indexing and access support in commercial scholarly publishing systems provides an advantage to researchers by ensuring coverage of a topic or area; the more silo-like, disciplinary or topic approach of some newer digital and OA infrastructures may be less convenient. Sci-Hub, a website that provides free access to illegally obtained journals from major publishers, is mostly known for science, but is popular in digital humanities and other areas. It was developed as a response to the high costs of research papers held behind paywalls and uses both legitimate and illegitimate means to provide access to research information. For some, this platform is a ‘Robin Hood’ attempt to support freedom of information and sharing practices of research, including in developing countries. But Sci-Hub violates copyright, compromises universities’ network security, and may jeopardize legitimate access to journal literature. It has forced a conversation on copyright, piracy, university security, and principles of OA, as well as the urgent need to address ever-increasing costs of access to research publications.

Despite recent changes arising from the growth in research, use of digital technology, and social changes, the four basic functions of scholarly publishing are still essential.

1. Registration, establishing the date and identity of the person/group responsible for the research.
2. Certification, establishing the validity of the findings.
3. Dissemination, ensuring the research and findings are accessible.
4. Preservation of the records of research for the long term.

Peer review continues to be the primary way of establishing the validity of research, and its aims include ensuring:

- Research is technically sound.
- The process of research has been described properly.
- Ethical and reporting standings have been met.
- Evidence of malpractice is documented.

The Committee agreed on the continuing importance of peer review as a part of quality assurance, while noting that it does not always lead to better research, and that trust in it may be misplaced. Peer review
is used differently among disciplines. In the social sciences particularly, it is seen as improving the final quality of scholarship. In the humanities, there are concerns about open peer review encouraging plagiarism. Open and community peer review models are being tested in the OA community, as a way to validate research.

Although the Journal Impact Factor (JIF) is a widely used bibliometric measure for research evaluation, its original function was purely as a tool for collection decision-making. The Committee agreed that a high JIF does not guarantee the quality of any individual article or work published in that journal, calling into question the widespread use of the measure for research evaluation. A high JIF is an indicator of prestige, not of quality of research, and has contributed to collections sustainability pressures, as commercial publishers of high JIF journals recognized that libraries could not cancel these titles.

In discussing the assessment of research value, the Committee particularly recognized the limitations of using the JIF in faculty review, promotion, and tenure, especially given the lack of representation in JIF ratings of many types of publications, including those in the French language. The evaluation of research is a primary structural element in the research ecosystem, and the limitations of the JIF call into question its usefulness as a decision-making tool for all key players – researchers, universities, publishers, and funding agencies. The Natural Sciences and Engineering Research Council of Canada (NSERC) now directs reviewers to look more deeply for research quality, using community of practice markers.

Open Science, through movements such as DORA and the Leiden Manifesto, also supports changes to evaluation of research, suggesting that metrics are needed that are sensitive to differences between subjects, offer greater transparency in data collection, and ensure that regular review of metrics used occurs.

### 7. Student Needs

Student retention rates are widely used as key indicators to university performance, and the Committee affirmed the importance for students of library collections, services, and space. A recent collaborative effort by over 200 colleges and universities has demonstrated positive correlation between student success and library use.¹⁴

Depending upon their program or subject, students use research and professional material, as well as a wide range of specialized course content and formats. Graduate students are heavily dependent on wide access to library collections. Provision of textbooks and course materials is an important issue in the affordability of higher education: affordability of textbooks affects students’ course choices.

The movement to Open Access is also influencing pedagogy, and the Committee acknowledged its potential benefits for students. Open Educational Resources (OER) align with Open Access values, and reduce student costs, support customized tools for teaching, and can lower barriers to higher education. The best sustainable practices for OERs are generally developed in local contexts through collaborative efforts, rather than in the use of online learning support tools increasingly developed and marketed by commercial textbook publishers.

Meeting student needs could include library-faculty collaboration on OER initiatives, perhaps with new models for manuals and textbooks. The Committee suggested that Library activities to increase student awareness and use of Open Access resources would be a benefit.

There is a particular challenge and opportunity around development of French language courses, where there is less material available, either freely available or published. The Committee noted that this is an especially appropriate role for uOttawa, particularly for teaching professional practices and requests for ‘notes de cours’ for French materials. Sharing teaching materials serves a primary mission of the institution.


The importance of French Language collections sustainability for uOttawa was recognized immediately by the Committee. It resulted in the establishment of a working group to analyze the French language scholarly publishing environment and collections data, with the intent to present recommendations about the specific needs for these materials (see Appendix C).

This topic was an important part of Committee discussions for both faculty and students. As a bilingual university, uOttawa must build, advocate for, nurture, and advance scholarly publishing in the French language.
Appendix C - Working Group – Scholarly Publishing and Dissemination in the French Language with the Transition to Open Access

Mandate
The Scholarly Publishing and Dissemination in the French Language Working Group (Working Group) is associated with the Ad Hoc University Committee on Sustainable Library Collections. It aims to understand more clearly the unique features of French-language publishing and evaluate the potential consequences for the University that the transition to open access could have on the vitality of scholarly publishing and dissemination in French. Accordingly, the Working Group’s mandate is to:

1. Evaluate the number of French-language books, journals and disseminators and their inherent costs compared to their English-language counterparts, generally and more specifically in terms of the University of Ottawa.
2. Evaluate the nature of French-language disseminators and publishers (market; for-profit/not-for-profit; government grants; disseminator and publisher profit or not) to better understand how they operate.
3. Evaluate emerging trends in the dissemination of knowledge in French.
4. Identify the unique aspects of French-language scholarly publishing and dissemination in light of the transition to open access to avoid adopting inappropriate solutions. For example, to implement solutions that weaken an already vulnerable market even more.
5. Propose a few possible solutions available to the University of Ottawa that would strengthen and energize scholarly publishing and dissemination in the French language even more, while accounting for the transition to open access.

Members
- Martin Meunier (Chair), Full Professor, Faculty of Social Sciences, School of Sociological and Anthropological Studies
- Christine Dallaire, Full Professor, Faculty of Health Sciences
- Lara Mainville, Director, University of Ottawa Press
- Ingrid Moisil, Librarian, Collections Strategy
- Paul-Eugène Parent, Director, Department of Mathematics and Full Professor, Faculty of Science, Department of Mathematics and Statistics
- Daniel Tanguay, Full Professor, Faculty of Arts, Department of Philosophy

Meetings
The Committee met twice and worked by email between August 8 and the submission of its report on October 15.
Report

The status of scholarly publishing in French is both unique and fragile. The Working Group on Scholarly Publishing and Dissemination in the French Language (Working Group) was created to examine this situation in greater detail. The percentage of scholarly journals published in French amounts to only 6% of total worldwide production – and only 3% of open access publications. In this sharply delineated market, French-language scholarly monographs are published by university presses and commercial publishers. These players are few, small and very often operate as not-for-profit enterprises. They also provide a very limited number of digital books to university libraries compared to the situation in English. This matter must be addressed. Furthermore, French-language textbooks that reflect the Canadian reality are rare.

The Working Group proposes a few possible solutions to guide the University of Ottawa in fulfilling its mission in relation to Francophone researchers and students and the Francophone community of Ontario. The Working Group’s first finding is: the transition to open access by the Francophone sector requires a different approach than for the Anglophone sector. The various suppliers, publishers and other players in the French publishing world must be encouraged. And any draconian change that affects them could increase their vulnerability, rather than cement their sustainability and outreach.

The general recommendations are:

- Pursue and enhance support for French-language research and publishing at uOttawa.
- Maintain the purchasing power of French-language scientific journals, monographs and other documents.
- Work with the Dirigeant principal de la francophonie et des services en français to implement the recommendations of the Plan d’action pour la francophonie à l’Université d’Ottawa.

These recommendations can read to tangible projects such as:

- Support the publication of French-language monographs, collaborative publications, textbooks and scientific journals by our faculty, particularly through scholarly publishing bursaries and awards piloted by the University.
- Support the translation into French of materials written by our faculty.
- Develop a way to make course notes available through open-access publishing.
- Support the translation and adaptation into French of course notes developed in English.
- Host French-language journals produced at the University using the Open Journal System (OJS) hosting tool.
- Create a standing committee on the Francophonie at the University of Ottawa Library.

The Working Group hopes that these recommendations will further strengthen and energize French-language scholarly publishing and dissemination, while taking account of the transition to open access.

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15 See reference 8.

Appendix E - Growth of Journals, 2000 – 2013


Figure 6: Growth in the number of active, peer-reviewed English-language journals recorded in Ulrich’s directory, 2000–2013
Appendix F - Committee Documentation

   - Backgrounder: L’ABC des collections de la Bibliothèque de l’Université d’Ottawa / uOttawa Library Collections Primer.

2. March 27, 2019 Meeting: Scholarly Publishing
     (https://www.mdpi.com/2304-6775/3/1/1)
     http://u15.ca/what-we-are-saying/u15-statement-sustainable-publishing

3. April 23, 2019 Meeting: Scholars’ Practices and Economics of Open Access
   - Backgrounder: Pratiques des universitaires et des chercheurs et leur incidence sur la publication savante / Scholars Practices.
   - Backgrounder: Modèles économiques de publication en libre accès / Open Access Economics.
4. June 27, 2019 Meeting: Committee Roundtable

- Préimpressions/Preprints - introduction au concept:
  - Preprints and Scholarly Communication: Adoption, Practices, Drivers and Barriers by Andrea Chiarelli, Rob Johnson, Stephen Pinfield, Emma Richens. [https://f1000research.com/articles/8-971#ref-1](https://f1000research.com/articles/8-971#ref-1)
  - Slide presentation at: [https://zenodo.org/record/2654832#.XR6LUC0ZOqA](https://zenodo.org/record/2654832#.XR6LUC0ZOqA)
  - Scholarly Kitchen blog discussions:
    a. [https://scholarlykitchen.sspnet.org/2017/04/18/stars-aligning-preprints/](https://scholarlykitchen.sspnet.org/2017/04/18/stars-aligning-preprints/)

- Les principes DORA et Leiden au sujet de l’évaluation de la recherche
  - DORA – San Francisco Declaration on Research Assessment (DORA) - [https://sfdora.org/](https://sfdora.org/)

5. September 28, 2019 Meeting: Review by Committee of Draft Report