

Final Report of the Canadian Collective Print Strategy Working Group

SEPTEMBER 2020

Group members:

Sheldon Armstrong, University of BC

Sonia Bebbington, Library of Parliament

Gwen Bird, Canadian Association of Research Libraries, Simon Fraser University (co-chair)

Alison Bullock, Library and Archives Canada (co-chair)

Doug Brigham, University of BC, Council of Prairie and Pacific University Libraries

Gillian Byrne, Toronto Public Library

Monica Fuijkschot, Library and Archives Canada (co-chair)

Scott Gillies, Wilfrid Laurier Univ, Ontario Council of University Libraries, Tri-Universities Group

Joseph Hafner, McGill University

Susan Haigh, Canadian Association of Research Libraries

Denise Koufogiannakis, University of Alberta

Mireille Laforce, Bibliothèque et Archives nationales de Québec

Caitlin Tillman, University of Toronto, Keep@Downsview

Camille Veillette-Péclet, Université de Montréal

Louise White, Memorial University of Newfoundland, Council of Atlantic University Libraries

Khalid Jouamaa, Université de Montréal

Table of Contents

- Summary of Recommendations 2**
- Timeline 3**
- Context 3**
 - History of CCPSWG 5
 - Purpose (from the Project Charter) 6
- Recommendation for National Shared Print Network 8**
 - Role of Regional Consortia 9
 - Steering Committee 9
 - Membership 9
 - Operations Working Group 11
 - Network Coordinator 11
 - Administrative Host 12
- Financial Sustainability 13**
- Principles for a Retention Framework 15**
 - Phase 1: Developing the Initial Framework 16
 - Phase 2: Addressing the TRC and Risk 17
 - Phase 3: Expansion 18
- Recommendations on Exposing Commitments 19**
- Program Evaluation and Review 20**
 - APPENDIX A: National Overlap Study on Federal Publications..... i*
 - APPENDIX B: National Shared Print Calculation of Portion of Costs..... xv*

Summary of Recommendations

This report includes the following recommendations for the successful establishment of a national shared print network in Canada:

1. The formation of a national shared print network that coordinates the activities of existing regional shared print initiatives and provides a path to participation for other interested libraries not yet in a shared print program.
2. The network be governed by a national steering committee with representatives from the regional academic library consortia, existing shared print projects, LAC, CULC, and others.
3. The formation of an operations working group with representatives from participating libraries and shared print programs, who bring relevant frontline expertise on collection management, metadata, holdings disclosure, and access.
4. Hiring a part-time network coordinator.
5. The Council of Pacific and Prairie University Libraries (COPPUL) act as the administrative host for the national network.
6. An initial three-year commitment in order to allow time to secure further funding through grants and partnerships, to make initial progress, and to review and solidify the network.
7. A Year 1 budget of \$115,000 with cumulative cost of living increases of 3% in Years 2 and 3.
8. A cost-sharing model for the first three years of operation.
9. Adherence to the current industry best practices for recording and exposing shared print commitments in local library management systems.
10. Recording shared print commitments in the OCLC Shared Print Registry and CRL's PAPER registry, as appropriate.
11. Developing a more complete set of standardized metadata elements for future phases of the national network's program.
12. That the national network remains closely in touch with groups such as OCLC, CRL and the Partnership for Shared Book Collections so that we can assist participating libraries to stay up-to-date with and support new developments.
13. The national network incorporate program evaluation into the third year of its work, but plan for this from the outset.

Timeline

This report will be distributed in September 2020 and shared with the library community. During Fall 2020 the consortia and associations named in the report will have the opportunity to discuss and endorse the report and its recommendations.

Once support is in place from all involved parties, CARL will initiate formation of the steering committee in early 2021, and the details of the hosting agreement with COPPUL will be finalized. The network coordinator can then be hired by the steering committee in order to begin work at the start of the 2021/2022 fiscal year (April 2021).

Following this timeline, the dates in this report will be as follows:

Year 1: April 2021 - March 2022

Year 2: April 2022 - March 2023

Year 3: April 2023 - March 2024

Context

Library collections management has undergone a profound shift in the past decade as the notion of collective collections emerged as an important, viable scale for managing library holdings. The ubiquity of digital collections, along with significant space pressures on campuses and in institutions, has led to significant deselection from large and small libraries across Canada and around the world. Shared print initiatives are integral to ensure that we collectively retain an intact print copy of the scholarly and cultural record. They also allow us to provide a platform above the institutional level for management of collections, for preservation, and for mechanisms of access.^{1,2}

Canada currently has two very active regional shared print initiatives underway, [Keep@Downsview](#) and [COPPUL's Shared Print Archive Network](#). There is significant Canadian participation in the [HathiTrust Shared Print Program](#), and the longstanding [Tri-Universities Group \(TUG\)](#) in Ontario which has a slightly different historical model. There are also plans for work in both the [Collaborative Futures Project of the Ontario](#)

¹ Brian Lavoie, Lorcan Dempsey, and Constance Malpas. 2020. "Reflections on Collective Collections." *College & Research Libraries* 81, no. 6 (September). Forthcoming. OCLC Research Preprint. Accepted 13 December 2019. <https://doi.org/10.25333/t51w-b252>.

² Lorcan Dempsey, Brian Lavoie, Constance Malpas, Lynn Silipigni Connaway, Roger C. Schonfeld, J.D. Shipengrover, and Günter Waibel. 2013. *Understanding the Collective Collection: Towards a System-wide Perspective on Library Print Collections*. Dublin, Ohio: OCLC Research. <http://www.oclc.org/research/publications/library/2013/2013-09.pdf>.

[Council of University Libraries \(OCUL\)](#), and the library subcommittee of [Bureau de coopération interuniversitaire \(BCI\) in Quebec](#). The legally mandated roles of both Library and Archives Canada (LAC) and Bibliothèque et Archives nationales du Québec (BAnQ), in terms of deposit and retention of Canadian and Québec imprints, are also significant in considering the Canadian shared print landscape. As yet there has been no coordination between these projects, nor any mechanism for libraries not included in one of these initiatives to participate in shared print archiving across Canada.

It was in light of these developments that the Canadian Association of Research Libraries (CARL) and Library and Archives Canada (LAC), along with other partners, organized the [@Risk North Symposium](#) in Ottawa in November 2017. The symposium provided participants with an opportunity to discuss the state of shared print programs in Canada and beyond, at a strategic level. Participants at the symposium confirmed that there was interest in pursuing the coordination of shared print archiving at the national level in Canada, and acknowledged that LAC had an important role in the work.

As shared print initiatives mature, a decade and more into their existence, there are increasing calls for stronger cooperation between these programs in all jurisdictions. Efforts to scale shared print programs help to “confer... the burden of retention to a larger network of committed parties and provide...guidance about the criteria that make a [shared print program] a reliable partner in explicit preservation efforts.”³ A notable recent example is the [July 2020 announcement of a collaboration](#) between California Digital Library (CDL), the Center for Research Libraries (CRL), and HathiTrust (HT), with the support of the Rosemont Shared Print Alliance and the Partnership for Shared Book Collections. The groups declare, “The future of print collections is shared. Embedding shared print within the lifecycle of library collections promotes equity of access, enriches the scholarly record, and increases opportunity for research and teaching. A well-developed, collaborative, and interoperable infrastructure ensures we will realize the full potential of our networks and their collective collections.” They state that they are working to coalesce regional shared print work into a strategic national effort.

The very scale of such efforts can be daunting. For example, Lavoie estimated the size of the collective book collection in the US & Canada in 2019 at 59.2 million distinct

³ Zachary Maiorana, Ian Bogus, Mary Miller, Jacob Nadal, Katie Risseuw, and Jennifer Hain Teper, “Everything Not Saved Will Be Lost: Preservation in the Age of Shared Print and Withdrawal Projects,” *College and Research Libraries* 80(7), 2019. <https://crl.acrl.org/index.php/crl/article/view/23612/30925>.

print book publications, based on 994.3 million holdings.⁴ In even the modest pilot project conducted in 2019 by the CCPSWG, analysis revealed that the 26 participating Canadian libraries hold 18 million distinct titles with more than 39 million title-holdings across the group.

History of CCPSWG

The Canadian Collective Print Strategy Working Group (CCPSWG) was formed by CARL and LAC in July 2018 to further the direction that emerged from the @Risk North Symposium. The CCPSWG was composed of 14 members from academic, public, and government libraries, and from consortia with active shared print programs. It was co-chaired by representatives from CARL (Gwen Bird, Simon Fraser University) and LAC (initially Monica Fuijkschot and later Alison Bullock). The group met monthly via videoconference, as well as having two in-person working days, in February and September 2019. The group had no dedicated budget but functioned with the generous support of CARL, LAC, and the home institutions of participants. We are grateful for the support of these institutions.

The group also benefited from the expertise of guests from two of the very large-scale shared print projects based in the US: Ian Bogus from ReCAP, and Susan Stearns from the Partnership for Shared Book Collections, and EAST. We appreciate their generosity in sharing their experience with us, and their support of developing shared print infrastructure at scale in Canada.

The group began its work in 2018 and ran its pilot overlap study in 2019/2020. Before the group wrapped up our work, the COVID-19 pandemic came to Canada, closing most libraries in the country for at least four months at the time of writing. Shared print seemed an urgent concern to members of the working group before the pandemic; priorities are changing now for all of us in light of COVID-19. However, members of the working group assert that the need for this work is no less now than it was last year. We believe that current events will inevitably result in a digital turn for our collections and services, even more profoundly that we have seen to date. Pressure will not abate for many of Canada's major libraries to withdraw low-use and duplicate print items from our buildings. We need to coordinate these efforts to ensure that we are keeping intact copies of important works in place in the country, and in many cases also an access copy.

⁴ Brian Lavoie. 2019. The US and Canadian Collective Print Book Collection: A 2019 Snapshot. Dublin, OH: OCLC Research. <https://doi.org/10.25333/7zjv-iv94>.

There are major shared print initiatives at national scale in the US, UK, Europe, Asia, and Pacific Rim countries. But no other country is going to take responsibility for the stewardship of Canadian materials if we don't do so. A strong network of Canada's major research libraries, working together with national libraries, large public libraries, and other interested institutions, can make a difference by moving this work forward together. If we do not take this opportunity to organize and preserve these print collections, there is a significant risk of permanent loss of Canadian scholarship and heritage.

The CCPSWG took several initial steps to lay the groundwork for this report, and to understand the landscape in which a national Canadian shared print initiative would flourish. In May 2019 the group published a "Collective Print Collections Overview," covering a scan of Canadian and major international shared print initiatives at that time. In addition, the group conducted a survey of Library Storage Facilities in Canada and published a report on the results of this survey in the same month. These documents are available in French and English on the [Shared Print Portal of the LAC website](#).

The working group also undertook an initial pilot project overlap study, considering federal government publications at 26 academic, public, national, and government libraries across Canada. The report on this overlap study appears in Appendix A of this report. It was run as a pilot project, an example of a national overlap study to determine the scale and range of Canada's collective print collection. As outlined in the report on this initial National Overlap Study, the working group gained many useful insights that will be valuable in shaping future rounds of collection analysis at the national level.

Purpose (from the Project Charter)

Guided by the shared objective of Canadian libraries to collaboratively support stewardship of the scholarly and cultural record in our possession, the Working Group's goal as stated in our [Project Charter](#), was to design and implement a national strategy of collective print preservation and access.

This national strategy provides libraries with a means to consolidate print collections while ensuring long-term content retention and access for users. We have considered digitization as a critical factor that impacts print retention requirements and the provision of access. While the strategy encompasses all categories of print (monographs, serials, government documents), we have a primary focus on Canadian materials.

The project charter outlined a number of deliverables for the working group:

1. An environmental scan of Canadian collective print preservation initiatives including participation in local, consortial or international networks and identifying key participants and preservation capacity.
2. An environmental scan of international collective print preservation initiatives including those of organizations such as CRL, CRL Print Archive Network members, CAVAL, Hathi Trust and OCLC.
3. Overlap studies which determine the scale and range of Canada's collective print collection.
4. Shared publicly available retention framework and commitment statements.
5. A public registry of commitments to hold a work(s) for long-term or permanent access through bibliographic records.
6. A detailed proposal which describes how Canadian libraries could strategically build a national network of distributed and/or central facility-based print preservation and access which addresses all categories of print and provides multiple options for library participation. Issues such as governance, collection ownership, retention obligations, financial commitment, bibliographic control, and mechanisms of access will be addressed.
7. Mechanisms to share the proposal, collect and evaluate comments/suggestions, modify the proposal and secure approval to implement the strategy will be developed.
8. Implementation of the approved national strategy.
9. Recommendations for post-project operationalization and continuous improvement of the implemented strategy.

Documentation by and about the Working Group can be found on the [Shared Print Portal of the LAC website](#).

Recommendation for National Shared Print Network

Details about each of the current shared print initiatives in Canada and beyond, are included in the [Collective Print Collections Overview](#) released by the CCPSWG in May 2019. Despite the fact that there are several active shared print initiatives in Canada, some with overlapping membership, there is not yet a structure for coordination in place between these groups. In proposing a national network for shared print activity going forward, the working group considered a spectrum of possibilities. On the one end, we could suggest a very loosely bound structure that would simply bring representatives from all these groups together virtually a few times a year to coordinate their activities with low overhead. It would cost nothing, but progress would also likely be very slow. This model would not provide a path for participation for any libraries not already involved in existing shared print initiatives, such as Atlantic libraries, public libraries, and many academic libraries in Ontario.

On the other end of the spectrum would be a very centralized model, heavily resourced with staff coordinating efforts and possibly a central repository in a high-density storage facility, similar to the models in place in the UK, Australia, Finland, and many other countries. Successful shared print initiatives at scale in the US such as WEST and ReCAP have benefited from millions of dollars in Mellon or other grant funding—this does not seem realistic for Canada at this moment. However, the experience of our most mature initiatives in Canada, Keep@Downsview and COPPUL SPAN, indicate that it will be very challenging to move such a project forward without any dedicated staff time.

We recommend the formation of a national shared print network that coordinates the activities of existing regional shared print initiatives and provides a path to participation for other interested libraries not yet in a shared print program.

This model will provide a path to participation for academic, public, and government libraries across the country who are not already active in a shared print network. We believe the costs will be modest when spread across the whole country.

Role of Regional Consortia

The working group recommends that participation in the national network be managed, wherever possible, through regional library consortia. In order to achieve start-up momentum on the national network, we recommend that consortia make an initial 3-year commitment to contribute an agreed upon percentage of annual costs to maintain the network.

Each consortium will be able to determine how to collect the associated fees from its members, both those which become retention libraries, and those libraries which otherwise benefit from the network. Once collected regionally, fees would be forwarded to the administrative host for allocation.

Consortia:

- Council of Atlantic University Libraries (CAUL)
- Bureau de coopération interuniversitaire (BCI)
- Ontario Council of University Libraries (OCUL)
- Council of Prairie and Pacific University Libraries (COPPUL)
- Canadian Urban Libraries Council (CULC)

In addition, Library and Archives Canada (LAC) would be a member of the national network and make a 3-year commitment to contribute a fixed annual amount. While academic research libraries will be represented in the network by their regional consortia, CARL would also make an annual financial contribution, in recognition that this national research infrastructure is directly related to the strategic goals of the Association.

Steering Committee

We recommend that the network be governed by a national steering committee with representatives from the regional academic library consortia, existing shared print projects, LAC, CULC, and others.

Membership

Members of the Steering Committee will bring forward issues from their constituencies while serving in the best interest of the national network. This will provide a mechanism for regional and sector groups to guide the direction of the network. Representatives to the Steering Committee should be in positions capable of committing their institutions to participation in shared print initiatives, normally the library director or other senior director with budgetary and decision-making authority in their institutions.

The Steering Committee will be comprised of a representative from each of the following:

- LAC
- CAUL
- BCI
- OCUL
- COPPUL
- CULC
- Keep@Downsview
- COPPUL SPAN
- CARL
- Network coordinator (non-voting, ex officio)

Ideally at least one of these representatives should be someone who is actively on a HathiTrust Committee, in order to coordinate between the national network and HathiTrust Shared Print Program. For example, the HathiTrust [Program Steering Committee](#), Shared Print Advisory Committee, Digital Collections Strategy Working Group, etc. from the list of [active Hathi Trust Committees](#). If it is not possible to have a committee representative, at least one representative will be from an institution that is a member of HathiTrust.

The Steering Committee will:

- direct the work of the network coordinator
- select print retention and archiving projects of national significance
- approve the network annual budget, including the distribution of costs to consortia
- approve all agreements associated with the network
- approve recommendations for participation in the network by Canadian libraries not affiliated with a participating consortium
- form an operations working group and any other ad hoc or standing working groups as required
- apply for grants or other funding in support of the network
- develop the network and its structure to ensure long term success of print preservation and access in Canada
- complete and distribute a program evaluation in the third year of work.

Note: LAC will assume special responsibilities for secretariat to the Steering Committee, providing bilingual support. In the event content to be translated conflicts with guidelines, an alternate service will be used.

Operations Working Group

We recommend the formation of an operations working group with representatives from participating libraries and shared print programs, who bring relevant frontline expertise on collection management, metadata, holdings disclosure, and access.

Reporting to the Steering Committee, this working group will consist of 8-10 representatives from participating libraries. It should include broad geographic representation from across the country, and a variety of expertise in collections management, metadata, access services, and those working directly on shared print projects in participating libraries.

The operations working group should also bring in expert groups when considering various phases of analysis and retention. For example, when working with specialized collections such as government documents, maps, music, or other materials, the specialist librarians working with these materials in participating libraries should be consulted during the design of each round of archiving. Early and active involvement of such experts will ensure effective analysis and retention projects that respect the peculiarities of specialist materials.

Network Coordinator

We recommend hiring a part-time network coordinator.

Reporting to the Steering Committee, the national network coordinator will:

- hold an ALA accredited master's degree
- have demonstrated expertise in shared print program management
- coordinate all activities related to retention projects ensuring liaison with related specialist communities
- manage a part-time MLIS intern assigned to the network
- draft for approval by the Steering Committee, agreements required by the network which facilitate a blend of distributed and central facility-based print preservation related to all categories of print as well as address collection ownership, retention obligations, financial commitment, bibliographic control, and mechanisms of access

- consult with National Overlap Study participants to establish whether further work is required to complete the NOS pilot and follow up on any issues arising from that study
- draft a network budget for approval by the Steering Committee and explore opportunities for grant funding to further develop and sustain the network
- ensure regular communication with member consortia and participating libraries
- evaluate requests to participate in the network from Canadian libraries not affiliated with a participating consortium
- connect the network to shared print initiatives within Canada and internationally
- connect the network to large scale digitization initiatives
- be a non-voting ex officio member of the Steering Committee

Administrative Host

We recommend that COPPUL act as the administrative host for the national network.

As the regional consortium with the most experience managing a shared print program, COPPUL has agreed in principle to act as the administrative host for the national network. In consultation with the Steering Committee, COPPUL will:

- manage employment matters related to the network coordinator and intern (e.g. contract, payroll, benefits, etc.)
- manage flow-through finances for the network
- host the network website (bilingual services will be provided by LAC as noted above)

The network will pay an administrative fee to COPPUL for these services. Details of the administrative hosting arrangement will be finalized with COPPUL once endorsement is in place from all supporting groups.

Financial Sustainability

We recommend an initial three-year commitment in order to allow time to secure further funding through grants and partnerships, to make initial progress, and to review and solidify the network.

Stable funding is required to allow time to appoint governing and working bodies, establish and stabilize the network, and secure future funding through grants and partnerships.

We recommend a Year 1 budget of \$115,000 with cumulative cost of living increases of 3% in Years 2 and 3.

Budget components:

Salary, Network Coordinator	\$ 70,000
Salary, MLIS Intern	\$ 20,000
Travel and other	\$ 10,000
Administrative Services	\$ 15,000
TOTAL	\$ 115,000

We recommend a cost-sharing model for the first three years of operation.

When considering how to apportion costs, the working group strived for consistency with the governance model, and where appropriate, sought to apply a known cost distribution model. It was further considered that, whether a specific library becomes an active participant in the network or not, retention commitments will support local collection management decisions in all libraries.

Costs assigned to the national bodies, LAC, CARL and CULC, were fixed commensurate with capacity and benefit derived.

Costs were assigned to BCI, CAUL, COPPUL and OCUL by applying the Canadian Research Knowledge Network (CRKN) Banding System to allocate the remainder of the total to all members, then grouping those members by regional consortium and deriving a percentage (see Appendix B for details). While the CRKN model was used as a basis for determining the percentage of costs for which the regional consortiums

would be responsible, those consortia will determine member fees through their own internal processes.

National Shared Print Network

Cost Distribution

19-Aug-20

		Year 1	Year 2	Year 3
Costs				
Salaries		\$ 90,000	\$ 92,700	\$ 95,481
Travel & Misc		\$ 10,000	\$ 10,300	\$ 10,609
Administrative Services		\$ 15,000	\$ 15,450	\$ 15,914
Total Costs		\$ 115,000	\$ 118,450	\$ 122,004
Contributions				
LAC	Fixed	\$ 12,000	\$ 12,000	\$ 12,000
CARL	Fixed	\$ 5,000	\$ 5,150	\$ 5,305
CULC	Fixed	\$ 2,000	\$ 2,060	\$ 2,122
Total Costs less Fixed		\$ 96,000	\$ 99,240	\$ 102,577
BCI	23.7%	\$ 22,774	\$ 23,543	\$ 24,335
CAUL	12.2%	\$ 11,695	\$ 12,089	\$ 12,496
COPPUL	29.6%	\$ 28,388	\$ 29,346	\$ 30,333
OCUL	34.5%	\$ 33,143	\$ 34,261	\$ 35,414

Part of the work during the first three years of the network will be aggressive investigation of funding opportunities and application for grants to sustain the work. In this context, the national shared print network must be positioned as part of the national research infrastructure, one with inextricable links to a national digitization strategy and large-scale digitization projects across Canada. Related advocacy on behalf of the network with government and private sector funders should be guided by these same principles.

The working group has identified both sole and partner funding possibilities. For instance, the network might apply to the Social Sciences & Humanities Research Council (SSHRC) to fund a series of projects focused on the preservation of Canadian monographs in specific disciplines. A joint application with CRKN to the Canada Foundation for Innovation (CFI) could be linked to the national digitization strategy and infrastructure for digital preservation. Additional projects concentrating on Canadiana could be put forward jointly with the National Heritage Digitization Strategy steering committee. Participation in international efforts such as the HathiTrust and the Partnership for Shared Book Collections may also open channels to funding sources such as the Mellon Foundation or other large international foundations.

Principles for a Retention Framework

Shared print preservation partnerships are generally developed as one of two models: those built around a preservation or storage facility (the “facility model”) and those in which libraries commit to keeping retained materials on library shelves (the “distributed model”). The risks associated with each model, and with different types of facilities, are different and, traditionally, these two models call for different kinds of retention and access commitments.

In Canada, there are already partnerships built according to both models: COPPUL SPAN uses the distributed model; the Tri-Universities Group and Keep@Downsview use the storage facility model. Adding to the retention and access commitments made by projects already in place, Alberta, McGill, UBC, and Toronto all participate in the [HathiTrust Shared Print Program](#) and Library and Archives Canada (LAC-BAC) and Bibliothèque et Archives nationales du Québec (BAnQ) each have a mandate to preserve the materials they collect.

Building a Canadian shared print network that provides multiple options for participation will require a combination of facility-based and distributed print preservation. To ensure the success of a national network that combines the two models, it is necessary to develop a well-planned, clear retention and access framework. The framework must include commitment criteria that are achievable for many different kinds of libraries, and it must weave in the mandates of LAC-BAC and BAnQ. Equally important is the need for the framework to address risk. The risk analysis includes a determination of how many copies are enough in a given round of retention, based on the qualities of the materials under consideration. It includes consideration of access copies versus preservation copies. It includes where, how and

why those copies are being preserved.⁵ And it includes the need to consider the calls to action of the [Truth and Reconciliation Commission \(TRC\) recommendations](#): which organizations should preserve Indigenous content in Canadian library collections, where they should preserve them and on what basis. Developing a framework in this context will be complex. With that understanding, we propose a phased approach to developing a framework and making use of work already being done in the areas of shared print and improving resource sharing and interlibrary loan.

Below is a proposal for Phase 1 and suggestions for Phases 2 and 3. The detailed work of filling out Phases 2 and 3 will be work for the national shared print network, through the associated steering committee and the network coordinator.

Phase 1: Developing the Initial Framework

Phase 1 will document and rationalize all shared print commitments already made by Canadian institutions. The goal of Phase 1 is to create a lightweight initial national framework that mirrors, as much as is possible and appropriate, the commitments already in place. Starting this way will make it easier to secure commitments from those partnerships and libraries already dedicated to print preservation because they will not be required to do more than what they are already doing (e.g. no special physical or metadata verification requirements).

Phase 1 will also determine and document the scope of the collection that already falls under the initial framework and make recommendations for prioritizing the expansion of print preservation beyond what is in place. This could include making special efforts to preserve Canadiana or the federal government documents from the National Overlap Study (NOS). We must remain mindful of the calls to action of the Truth and Reconciliation Commission when conducting this review and when scoping collections.

Deliverables for Phase 1

- Analysis of shared print program memoranda of understanding already in place at Canadian libraries.
- Analysis of existing storage facilities available to Canadian libraries.
- Using the result of the NOS, determine how participating libraries can best record information about the relative scarcity of their materials.
- Take the TRC recommendations into account.
- Link LAC's and BAnQ's missions to the goals of academic libraries.

⁵ Candace Yano, Zuo-Jun Max Shen, and Stephen Chan, "Optimising the Number of Copies and Storage Protocols for Print Preservation of Research Journals," *International Journal of Production Research* 51, no. 23/24 (2013): 7456–69.

- Determine how to weave together the different storage and preservation models available to us
 - Preservation facilities: Keep@Downsview, LAC-BAC, UBC, University of Alberta, McGill (in development)
 - Storage facilities: Tri-Universities Group
 - Distributed: COPPUL
- Develop pathways that allow all memory institutions to participate.
- Discuss the relative risk to materials and make recommendations on how and where materials at high, medium, and low risk are preserved.

Phase 2: Addressing the TRC and Risk

The goal of Phase 2 is to expand the work of Phase 1, specifically to ensure that the national framework addresses the [TRC recommendations](#) and that our efforts align with other heritage digitization programs already underway. This work could include:

- Recommendations for how many copies and where to situate them.
- Recommendations and process for transferring at-risk materials into preservation facilities.
- Process for incorporating consultation for the inclusion / withdrawal of material according to [TRC recommendations](#).
- Recommendations for collaboration with national digitization efforts underway through the [National Heritage Digitization Strategy](#) and the [Heritage Content Priorities Task Group](#) of the Canadian Research Knowledge Network.

An initial conversation was held with the Heritage Content Priorities Task Group of CRKN, to coordinate efforts between our groups. There is also important work to be done coordinating with the National Heritage Digitization Strategy. Both of these groups are working on mass digitization programs at the national scale and are thinking strategically about large scale digitization programs in Canada. The national shared print network will be analyzing collective print collections in Canada. A significant factor in determining the level of risk of print collections is to assess whether digital surrogates exist, and what digital preservation measures are in place for their long-term stewardship. While it will be out of scope for the shared print network to digitize the material it considers and archives, it would be a missed opportunity not to link collection analysis work on this scale to both of these important national digitization efforts.

We recommend that deliverables for Phase 2 be developed by the proposed national shared print network, once it is established.

Phase 3: Expansion

Phase 3 will build on Phases 1 and 2 to develop a framework for participation by those without a facility or not already in a partnership and will strengthen the initial national framework. This phase would also expand the scope of the material in the national network (i.e. “Canadiana” beyond federal government documents). For Phase 3 to move forward we need to consider doing at least the following:

- Some assessment of combining the models (facility and distributed) with national library mandates.
- Determine if we need to develop an “ideal” state, aspirational framework and compare that to the initial framework. Establish what we need to add to the initial framework to get from where some institutions already are to the “ideal” state and then an assessment to determine if the “ideal” is possible.
- Address several OCLC-related questions (e.g. where is retention data recorded for those participating who are not OCLC members?).
- Write a collection development policy defining and scoping “Canadiana” and how that relates to other preservation projects supported by Canadian libraries.
- Develop criteria / pathways for participation by individual libraries (or any memory institution), local and regional partnerships. This could outline options for low-level participation (e.g. if unable to make a long-term commitment, how to donate important materials to the national collection), mid-level participation (e.g. sign the national retention agreement and keep materials in your institution and circulate it according to the access commitment in the national framework) or high-level participation (e.g. contributing costs, time, space etc.).

The working group had detailed discussion of where a national shared print network should focus. The initial overlap study on federal government publications was selected because it was Canadian material, considered possibly at risk, of widespread interest across all geographies and types of libraries, and was a limited enough collection that the scale would not be overwhelming for a first study. The working group proposes that a study of Canadian monographs would be a useful next step once the national network and coordinator are in place. We agree that while the work of the national shared print network should not be limited only to collections of Canadian material (published in Canada, by Canadian creators, or about Canada), this material should be the primary focus of the network. We anticipate that initial rounds of analysis and retention will concentrate on Canadian materials. As the network matures, workflows are established, and trust is built, there may eventually be interest in considering non-Canadian materials held in Canadian libraries.

We recommend that deliverables for Phase 3 be developed by the proposed national shared print network once it is established.

Recommendations on Exposing Commitments

The ecosystem for print retention commitments has been anchored for the past decade by OCLC’s Shared Print Registry and CRL’s PAPR registry. Until this year, however, neither was capable of registering commitments for all three main types of materials: single-part, multi-part and serials. OCLC and CRL received funding from the Mellon Foundation in 2018 to enhance the capabilities of the OCLC Shared Print Registry. The enhancements were completed in May 2020 and the new version of the Registry now permits libraries to register multi-part and serial commitments. This enhancement positions the OCLC Registry to serve as a more comprehensive repository of information about shared print commitments.

Shared print programs typically register and expose their commitments through their local library management systems as well as through the OCLC Shared Print Registry and the Center for Research Libraries’ Print Archives Preservation Registry (PAPR), as appropriate. Recording and exposing retention commitment information supports the key functions of any shared print program: the analysis, management, preservation and use of a shared collection.

Information recorded in an institutions’ local library management system allows staff at that library to track the materials they have committed to retain. Depending on the system, it might also allow them to analyze and act on the commitment data.

We recommend adhering to the current best practices for recording and exposing shared print commitments in local library management systems.

We recommend recording shared print commitments in the OCLC Shared Print Registry and CRL’s PAPR registry, as appropriate.

The information about shared print commitments is normally located in the 583 field (“Action Note”) of MARC [bibliographic](#) and/or [holdings](#) records. Additional data elements in the holding records may be present, depending on the situation and the level of information being provided. The most detailed specifications for recording shared print retention information are found in OCLC’s [Detailed Metadata Guidelines](#) for shared print commitments. The Partnership for Shared Book Collections has also developed a best practice for “[Discovery and Disclosure of Items in Local Systems.](#)”

We recognize that asking libraries who participate in the CCPS shared print program to manage information in multiple systems will require additional effort over time. However, we firmly believe that recording commitment information in these different systems will ensure that libraries nationally and globally are able to retrieve and act upon that information. The National Overlap Study provided us with an opportunity to develop metadata standards for recording shared print information (in that case, about the relative scarcity of materials).

We recommend developing a more complete set of standardized metadata elements for future phases of the national network's program.

These elements must support the bilingual library management environment in which Canadian libraries operate. It is possible that our work in this area could connect to other international and/or multilingual efforts.

The information interchange pathways between the various systems will almost certainly become more streamlined and efficient in the coming years.

We recommend that the national network remain closely in touch with groups such as OCLC, CRL and the Partnership for Shared Book Collections so that we can assist participating libraries to stay up-to-date with and support new developments.

Program Evaluation and Review

A collaborative program that brings together a diverse set of stakeholders, such as the CCPS, must ensure that its work is successful, impactful and aligned with its own goals and those of its members. A thoughtful evaluation of CCPS' work, built into the first three years of its existence, will help to improve processes and communications, demonstrate the relevance of the work, help to secure future funding, and aid in setting goals for future phases.

Shared print programs such as COPPUL SPAN and the [Western Regional Storage Trust](#) (WEST) have each conducted program evaluations. The Partnership for Shared Book Collections (PSBC) is developing a proposed best practice to guide the evaluation of shared print programs. COPPUL SPAN conducted a five year review in 2017. The review consisted of interviews with colleagues at SPAN institutions and culminated in a [final report and recommendations](#). WEST conducted more extensive [program evaluations](#) in 2016 and 2019, both of which were components of the grant

funding they received from the Mellon Foundation. WEST's evaluations included a mix of interviews with library directors and shared print contacts, focus groups and a final report.

Both programs report that the evaluations yielded actionable information to improve program planning and operations, as well as the opportunity for members to reflect on the value that the programs provide.

The evaluation should review and make recommendations on:

- the goals and objectives of the program
- the alignment of the program with the goals and objectives of participants
- the work completed to date and its impact on participating libraries
- communications with participants and with the larger community
- recommendations for subsequent phases
- ensuring accountability to the community

The review should incorporate both qualitative and quantitative evaluation, including for example, data on collections analyzed and committed for retention, number of titles and volumes archived, number of titles withdrawn from collections as a result of the national network, and impact on local collections practices where it is possible to identify. In order to include qualitative evaluation in year three, consideration should be given to this from the beginning of the network's efforts.

We recommend that the national network incorporate formal program evaluation into the third year of its work, but plan for this from the outset.

APPENDIX A

National Overlap Study on Federal Publications

Library and Archives Canada & Canadian Association of Research Libraries 2019-20

Introduction

This report provides background, an overview of the National Overlap Study of Federal Publications, and results and recommendations for future shared print initiatives on a national scale in Canada.

Background

The National Overlap Study on Federal Publications (NOS) was conceived of and run under the Canadian Collective Print Strategy Working Group (CCPSWG). The Working Group was established in late 2018, and the group's project charter was finalized and approved in March 2019. One of the deliverables is a series of overlap studies to determine scarcity of publications across a selected participant group, and Canadian Federal Publications were chosen as the first study group of materials. The goal of this series of studies is to identify items that may be rare or scarce in Canadian libraries, thus contributing to confidence in space rationalization projects as well as to a national print preservation strategy to ensure an enduring print record, and will also serve access and digitization needs in future. The project sponsors were the Canadian Association of Research Libraries (CARL) and Library and Archives Canada (LAC); the list of participant libraries is available in Appendix A.

Federal publications were chosen for the pilot overlap study for several reasons. While we knew that through the Depository Services Program a number of large university libraries acquired quantities of publications, we had anecdotal evidence that this group of materials had also been subject to weeding projects in the libraries, and that the level of cataloguing of these publications varied radically. There was also an assumption in the Canadian library community that due to LAC's position as the national library (taking into account legal deposit and the institution's role as the memory of the Government of Canada), LAC would have at least one copy of most publications.

Overlap Study

OCLC, as the owner of the world's largest library catalogue, was contracted to identify the pertinent titles in the catalogue, provide views of the title data (both the overall list as well as filtered lists with retention scenarios applied) through their GreenGlass application, work with the participant libraries to

refine the title data that would have a retention commitment noted in the records and make a final list available to each of the libraries to import into their local records.

OCLC has participated in several of these initiatives, and the functionality to apply a retention commitment in a specific MARC field is well-developed.

LAC assumed the costs for the work done by OCLC, which includes access to the lists through GreenGlass for two years following the end of the project work.

Isolating the Data

The first step in gathering the pertinent data in OCLC was to determine how federal publications had been identified at the time they were catalogued. Due to changes in cataloguing standards over time, there were a number of rules applied to ensure that the data capture would be as complete as possible. See Appendix B for the list of eight rules that were applied.

Data Results

The results of the initial data grab supported what has previously been anecdotal evidence: the titles identified in the dataset as federal publications had limited holdings coverage within the 26 participant libraries. The total number of titles identified was 748,000, and of these, 509,000 (68%) showed only one library holding in the participant group.

There are some caveats to consider about the resulting dataset. Data on unique titles may not be accurate due to variations in descriptive metadata, or because libraries had undertaken weeding and not yet had the chance to synchronize data held in local systems in OCLC, or because they had done some weeding after the initial data grab.

In many shared print projects, there is a shelf check done to verify that holdings are there. This was considered an optional activity for the purposes of this pilot.

While the pilot included 26 large academic, public and special libraries, it is assumed that other libraries, especially those that were/are full depository libraries, would also have significant holdings. We expect there are quantities of these publications in other libraries; for example, the University of Moncton has been a depository library for many years, but does not report holdings to OCLC. We also know there are significant quantities of government publications in the federal science libraries, but that only one reports holdings to OCLC. It is likely that there are titles that the data shows as unique for the purposes of this pilot, but that really are not in terms of all libraries in Canada.

Previous studies, and the experience of a number of WG members, indicate that there are always some data anomalies in projects such as these.

Determining Retention Scenarios

A sub-working group was tasked with determining an appropriate retention scenario for the items identified. The combined model retention scenarios developed and applied were as follows:

SERIALS: Retain all holdings for titles not held at LAC-BAC AND Retain three holdings for titles held at LAC-BAC (i.e., LAC-BAC + two others)

NON-SERIALS: Retain all holdings for titles held at fewer than three NOS participants; Retain five holdings for titles not held at LAC-BAC; Retain three holdings for titles held at LAC-BAC plus three or more other NOS participants

In terms of a retention commitment, the agreement proposed 25 years as the initial period.

Mid-project feedback and shift in approach

After the identification of the federal publications and the application of the retention scenario to the data in GreenGlass, a webinar to introduce participant libraries to the results was hosted, and participants then had the opportunity to look more closely at the materials they would be asked to retain long term.

Feedback ran the full range of immediate responses of “we are in” to extensive comments and suggestions regarding all aspects of the project, as well as a national print retention strategy more broadly.

Certainly, different participants had different reasons for being involved in the study to begin with, but one thing that was clear was that the quantities of material that libraries were being asked to retain were greater than expected, a result of the limited coverage of the title-holdings, and they were not prepared to commit to this. Linked to these numbers is the fact that they were also dependent on the number of libraries continuing to commit to the retention scenario (fewer participating libraries would mean more titles to retain for each).

The timeframe given to look closely at the identified titles and determine whether to proceed was considered too short for several of the participants. Also, the proposed retention agreement of 25 years was considered too long for some.

Public libraries, while evidence points out that they do hold titles that may be scarce, may not see themselves as having a role to play in the long term retention of print materials, so a different approach could be considered for these types of libraries.

Linked to the pilot study, but broader in scope, was feedback regarding overall and ongoing governance of a national shared print programme, as well as expectations about the financing of the initiative.

In consideration of the feedback and the reluctance of a number of the participant libraries to agree to the retention scenario and agreement proposed, the decision was made to propose putting a note in the records indicating their scarcity rather than applying a formal retention commitment, which would ensure that the participants would not lose access to this information about the identified titles. The note would still be available for those considering weeding projects to act as a flag that specific titles appeared to have limited holdings in Canada, and that transfer to another library or repository rather than disposal should be considered. The note would not appear in the bibliographic record field used for retention commitments, but another that is used to record “preservation” actions.

OCLC was able to support this work within the scope of the existing contract, so no amendments were required.

On the recommendation of the Retention sub-WG, three or fewer title-holdings was applied to all of the identified titles as a threshold indicating scarcity in the participant group. OCLC provided LAC with a consolidated list of all these holdings identified as scarce; this final list was of 864,841 titles, and included both monographs and serials. Once applied, the lists for each library were available through GreenGlass. Please see Appendix C, comparing the quantities of identified titles in each of the two scenarios.

A series of three one-hour webinars was organized to update the participant libraries on this change in approach, as well as to gather their feedback on both this overlap study and the national strategy work of the CCPSWG.

The final stage of the project was to apply the scarcity note in the holdings records in the participant libraries’ catalogues. The functionality (for OCLC libraries) was available late May 2020, and written instructions as well as a walk-through webinar were prepared for both OCLC libraries and others to download this information into their records directly. This is the information indicating scarcity in the MARC 583 line:

```
583 ## $c 20200331 $h CCPSWG Overlap Study/Étude de chevauchement $z 3 or fewer copies/3  
exemplaires ou moins $5 librarycode
```

Lessons Learned and Conclusion

While this pilot overlap study did not result in retention commitments by participant libraries, a scarcity note was added to title-holdings showing three or fewer instances in the participant group, contributing to the libraries' ability to manage these titles in a responsible way moving forward. Libraries will have the opportunity to validate the scarcity of the titles and transfer them to a repository for long-term retention if needed.

The funding for the contract with OCLC to work on this study start-to-finish was available over 18 months. This timeline was too short. In particular, it took some time to determine a broad range of descriptive terminology that would give a full view of Canadian federal publications. As noted, evidence suggested significant variation in the descriptive metadata, so there was a fair amount of effort initially in ensuring good search terminology. The participant libraries did not have enough opportunity to do an in-depth analysis of the lists produced in the original retention scenario, nor did they have time or resources to do a shelf validation exercise. These points, perhaps, contributed to the hesitancy to formally agree to a retention commitment. The time to clean up data in identified records, as well as to verify that items are indeed on shelf and accessible are important parts of the process in any shared initiative.

For LAC, the data on unique holdings was surprising. As noted in the Data Results section above, the number of unique titles was 508,000; results indicated that LAC holds 161,000 of these, meaning that there are 348,000 not in the national collection. While data anomalies mean some inaccuracy in this estimate, this result did prompt some discussion on the possibility of large-scale transfers of material to LAC as a result of weeding projects in other Canadian libraries. While there is an internal-to-government procedure for transferring quantities of material from departmental libraries, LAC would struggle to accept large quantities from other sources. There is, however, a Donations programme that can be used to donate smaller quantities that will help fill gaps in the national collection. [Donate published materials - Library and Archives Canada](#)

Another piece of valuable feedback was to engage specialist librarians earlier in the process of a study. The participant representatives are not necessarily the best to provide input on technical considerations for each of the libraries. Early identification of specialist contacts will be incorporated in future overlap studies.

In conclusion, this pilot was successful in that it did provide an overview of the uniqueness and overlap, as well as the instances, of Canadian federal publications held in the 26 participant libraries. It provided concrete evidence of the anecdotal information that federal publications may not be plentiful in library

collections in Canada, and that this segment of the publishing landscape needs further investigation to ensure the preservation of the print record.

The pilot study pulled together an initial interested group of libraries, and as it proceeded, more libraries were in contact about participating in future studies. Finally, as noted, the CCPSWG received valuable feedback on both the overlap study as well as a national print retention strategy, which will be incorporated moving forward.

Appendices

Appendix i – National Overlap Study Participants

Government	Library and Archives Canada
	Bibliothèque et archives nationales de Québec
	Library of Parliament
	National Research Council
University	Carleton University
	Dalhousie University
	McGill University
	McMaster University
	Memorial University
	Queen’s University
	Simon Fraser University
	Tri-University Group (Guelph, Laurier, Waterloo)
	Western University
	Université de Montréal
	University of Alberta
	University of British Columbia
	University of Manitoba
	University of Ottawa
	University of Regina
	University of Saskatchewan
	University of Toronto
	University of Victoria
	University of Windsor
Public	Ottawa Public
	Toronto Public
	Vancouver Public

Appendix ii – Identifying Canadian Federal Publications

Rule 1	Government Document Indicator (008/28 and 006/11) = 'f' or 'm' and Place of Publication 008/15-17 has Canadian code
Rule 2	Government Document Number (086) is present with <i>ind1 = 1</i>
Rule 3	Author fields (1XX,7XX) exact match entry in Canadian Government Bodies list provided by LAC
Rule 4	Publisher field (26X) "relaxed" match in Canadian Government Bodies list provided by LAC. Canadian Place of Publication OR the word "Canada" or "Canadian" is required.
Rule 5	ISBN has known agency prefix
Rule 6	ISSN has Federal Agency source 022\$2 = 4
Rule 7	Author fields (1XX,7XX) "relaxed" match in Canadian Government Bodies list provided by LAC. Canadian Place of Publication OR the word "Canada" or "Canadian" is required.
Rule 8	Notes (5XX) that reference "Canada Depository" program and variant expressions

Appendix iii – Retention and Scarcity Quantity Comparison

	All Titles	Titles marked for retention	% of all	Scarcely-Held Titles	% of all
BAC-LAC	295,509	295,509	100%	236,420	80%
BAnQ	52,378	48,313	92%	42,785	82%
Carleton University	35,342	25,865	73%	20,770	59%
Dalhousie University	56,870	40,715	72%	17,200	30%
Lib. of Parliament	71,900	57,811	80%	51,460	72%

McGill University	33,512	23,904	71%	10,209	30%
McMaster University	36,536	26,092	71%	17,018	47%
Memorial University	59,938	43,993	73%	25,693	43%
NRC / NSL	66,370	55,883	84%	49,768	75%
Ottawa Public	8,811	6,241	71%	2,323	26%
Queen's University	109,054	86,639	79%	78,708	72%
Simon Fraser	32,327	23,050	71%	7,569	23%
Toronto Public	52,171	0	0%	20,953	40%
U of Saskatchewan	50,415	35,929	71%	16,419	33%
Univ. de Montréal	33,387	30,949	93%	26,010	78%
Univ. of Alberta	80,594	59,284	74%	35,044	43%
Univ. of Guelph	65,110	49,537	76%	42,257	65%
Univ. of Manitoba	44,629	31,867	71%	12,710	28%
Univ. of Ottawa	52,386	37,708	72%	24,705	47%
Univ. of Regina	41,359	29,591	72%	21,392	52%
Univ. of Toronto	62,077	48,877	79%	32,850	53%

Univ. of Victoria	43,840	31,294	71%	13,374	31%
Univ. of Windsor	33,972	24,027	71%	16,064	47%
University of B.C.	47,907	34,624	72%	14,038	29%
Vancouver Public	22,743	16,179	71%	4,620	20%
Western Univ.	39,646	28,329	71%	18,002	45%
ALL TITLE HOLDINGS	1,528,783	1,192,210	78%	858,361	56%

APPENDIX B

National Shared Print Network				
Calculation of regional portion of costs using CRKN Banding System				
2020-08-018				
			Factor	1.25
			Goal	\$ 97,000
			Diff	\$ (660)
			Minimum Contribution	\$ 200
CRKN Member Institutions (75)	CRKN Band as of Feb 2020	Band Price	Consortium	
École nationale d'administration publique	3	1	BCI	394
Télé-université du Québec	4	1	BCI	495
Bishop's University	4	1	BCI	495
Institut national de la recherche scientifique	5	1	BCI	620
Université du Québec en Abitibi-Témiscamingue	5	1	BCI	620
Université du Québec en Outaouais	6	1	BCI	778
Université du Québec à Rimouski	6	1	BCI	778
École de technologie supérieure	7	1	BCI	975
Université du Québec à Chicoutimi	7	1	BCI	975
HEC Montréal	7	1	BCI	975
École Polytechnique de Montréal	8	1	BCI	1223
Université du Québec à Trois-Rivières	8	1	BCI	1223
Concordia University	10	1	BCI	1923
Université de Sherbrooke	10	1	BCI	1923
Université du Québec à Montréal	10	1	BCI	1923
Université Laval	11	1	BCI	2412
Université de Montréal	11	1	BCI	2412
McGill University	12	1	BCI	3024
Université Sainte-Anne	1	1	CAUL	251

The King's University	2	1	CAUL	315
NSCAD University	2	1	CAUL	315
Mount Saint Vincent University	5	1	CAUL	620
Mount Allison University	5	1	CAUL	620
Cape Breton University	5	1	CAUL	620
Acadia University	6	1	CAUL	778
St. Francis Xavier University	6	1	CAUL	778
University of Prince Edward Island	6	1	CAUL	778
Saint Mary's University	6	1	CAUL	778
Université de Moncton	7	1	CAUL	975
University of New Brunswick	8	1	CAUL	1223
Memorial University of Newfoundland	10	1	CAUL	1923
Dalhousie University	10	1	CAUL	1923
Concordia University of Edmonton	2	1	COPPUL	315
Algoma University	2	1	COPPUL	315
Royal Roads University	4	1	COPPUL	495
Brandon University	5	1	COPPUL	620
University of Northern British Columbia	5	1	COPPUL	620
University of the Fraser Valley	6	1	COPPUL	778
Vancouver Island University	6	1	COPPUL	778
MacEwan University	6	1	COPPUL	778
Thompson Rivers University	6	1	COPPUL	778
Athabasca University	6	1	COPPUL	778
Kwantlen Polytechnic University	7	1	COPPUL	975
Mount Royal University	7	1	COPPUL	975
University of Winnipeg	7	1	COPPUL	975
University of Lethbridge	8	1	COPPUL	1223
University of Regina	8	1	COPPUL	1223
University of Victoria	10	1	COPPUL	1923
Simon Fraser University	10	1	COPPUL	1923
University of Saskatchewan	10	1	COPPUL	1923
University of Manitoba	11	1	COPPUL	2412

University of Calgary	12	1	COPPUL	3024
University of Alberta	12	1	COPPUL	3024
University of British Columbia	12	1	COPPUL	3024
Trinity Western University	4	1	OCUL	495
OCAD University	5	1	OCUL	620
Nipissing University	5	1	OCUL	620
Royal Military College of Canada	5	1	OCUL	620
University of Ontario Institute of Technology	7	1	OCUL	975
Trent University	7	1	OCUL	975
Lakehead University	7	1	OCUL	975
Laurentian University	8	1	OCUL	1223
Wilfrid Laurier University	8	1	OCUL	1223
Brock University	8	1	OCUL	1223
University of Windsor	8	1	OCUL	1223
Carleton University	10	1	OCUL	1923
Ryerson University	10	1	OCUL	1923
University of Guelph	10	1	OCUL	1923
Queen's University	10	1	OCUL	1923
University of Waterloo	11	1	OCUL	2412
York University	11	1	OCUL	2412
McMaster University	11	1	OCUL	2412
Western University	11	1	OCUL	2412
University of Ottawa	11	1	OCUL	2412
University of Toronto	13	1	OCUL	3792
				97660
			Subtotals	
			BCI	23168
			CAUL	11897
			COPPUL	28879
			OCUL	33716
				97660

			% of Total	
			BCI	23.7%
			CAUL	12.2%
			COPPUL	29.6%
			OCUL	34.5%

**APPENDIX B:
National Shared Print Network Calculation of Regional Portion of Costs Using CRKN
Banding System 2020-08-018**

Factor	1.25
Goal	\$ 97,000
Diff	\$ (660)
Minimum Contribution	\$ 200

CRKN Member Institutions (75)	CRKN Band as of Feb 2020	Band Price	Consortium	
École nationale d'administration publique	3	1	BCI	\$ 394
Télé-université du Québec	4	1	BCI	\$ 495
Bishop's University	4	1	BCI	\$ 495
Institut national de la recherche scientifique	5	1	BCI	\$ 620
Université du Québec en Abitibi-Témiscamingue	5	1	BCI	\$ 620
Université du Québec en Outaouais	6	1	BCI	\$ 778
Université du Québec à Rimouski	6	1	BCI	\$ 778
École de technologie supérieure	7	1	BCI	\$ 975
Université du Québec à Chicoutimi	7	1	BCI	\$ 975
HEC Montréal	7	1	BCI	\$ 975
École Polytechnique de Montréal	8	1	BCI	\$ 1,223
Université du Québec à Trois-Rivières	8	1	BCI	\$ 1,223
Concordia University	10	1	BCI	\$ 1,923
Université de Sherbrooke	10	1	BCI	\$ 1,923
Université du Québec à Montréal	10	1	BCI	\$ 1,923
Université Laval	11	1	BCI	\$ 2,412
Université de Montréal	11	1	BCI	\$ 2,412
McGill University	12	1	BCI	\$ 3,024
Université Sainte-Anne	1	1	CAUL	\$ 251
NSCAD University	2	1	CAUL	\$ 315
Mount Saint Vincent University	5	1	CAUL	\$ 620
Cape Breton University	5	1	CAUL	\$ 620
Acadia University	6	1	CAUL	\$ 778
St. Francis Xavier University	6	1	CAUL	\$ 778

CRKN Member Institutions (75)	CRKN Band as of Feb 2020	Band Price	Consortium	
University of Prince Edward Island	6	1	CAUL	\$ 778
Saint Mary's University	6	1	CAUL	\$ 778
Université de Moncton	7	1	CAUL	\$ 975
University of New Brunswick	8	1	CAUL	\$ 1,223
Memorial University of Newfoundland	10	1	CAUL	\$ 1,923
Dalhousie University	10	1	CAUL	\$ 1,923
Concordia University of Edmonton	2	1	COPPUL	\$ 315
Algoma University	2	1	COPPUL	\$ 315
Royal Roads University	4	1	COPPUL	\$ 495
Brandon University	5	1	COPPUL	\$ 620
University of Northern British Columbia	5	1	COPPUL	\$ 620
University of the Fraser Valley	6	1	COPPUL	\$ 778
Vancouver Island University	6	1	COPPUL	\$ 778
MacEwan University	6	1	COPPUL	\$ 778
Thompson Rivers University	6	1	COPPUL	\$ 778
Athabasca University	6	1	COPPUL	\$ 778
Kwantlen Polytechnic University	7	1	COPPUL	\$ 975
Mount Royal University	7	1	COPPUL	\$ 975
University of Winnipeg	7	1	COPPUL	\$ 975
University of Lethbridge	8	1	COPPUL	\$ 1,223
University of Regina	8	1	COPPUL	\$ 1,223
University of Victoria	10	1	COPPUL	\$ 1,923
Simon Fraser University	10	1	COPPUL	\$ 1,923
University of Saskatchewan	10	1	COPPUL	\$ 1,923
University of Calgary	12	1	COPPUL	\$ 3,024
University of Alberta	12	1	COPPUL	\$ 3,024
University of British Columbia	12	1	COPPUL	\$ 3,024
Trinity Western University	4	1	OCUL	\$ 495
OCAD University	5	1	OCUL	\$ 620
Nipissing University	5	1	OCUL	\$ 620
Royal Military College of Canada	5	1	OCUL	\$ 620

CRKN Member Institutions (75)	CRKN Band as of Feb 2020	Band Price	Consortium	
University of Ontario Institute of Technology	7	1	OCUL	\$ 975
Trent University	7	1	OCUL	\$ 975
Lakehead University	7	1	OCUL	\$ 975
Laurentian University	8	1	OCUL	\$ 1,223
Wilfrid Laurier University	8	1	OCUL	\$ 1,223
Brock University	8	1	OCUL	\$ 1,223
University of Windsor	8	1	OCUL	\$ 1,223
Carleton University	10	1	OCUL	\$ 1,923
Ryerson University	10	1	OCUL	\$ 1,923
University of Guelph	10	1	OCUL	\$ 1,923
Queen's University	10	1	OCUL	\$ 1,923
University of Waterloo	11	1	OCUL	\$ 2,412
York University	11	1	OCUL	\$ 2,412
McMaster University	11	1	OCUL	\$ 2,412
Western University	11	1	OCUL	\$ 2,412
University of Ottawa	11	1	OCUL	\$ 2,412
University of Toronto	13	1	OCUL	\$ 3,792
				\$ 97,660
			Subtotals	
			BCI	\$ 23,168
			CAUL	\$ 11,897
			COPPUL	\$ 28,879
			OCUL	\$ 33,716
				\$ 97,660
			% of Total	
			BCI	23.7%
			CAUL	12.2%
			COPPUL	29.6%
			OCUL	34.5%