

Environmental Scan of Open Education Service and Support in Canada

This report was produced by members of the CARL Open Education Working Group's Environmental Scan Subgroup:

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Executive Summary

Between June and December 2019, a subgroup of the CARL Open Education Working Group conducted an environmental scan of open education support models in just over 250 Canadian post-secondary institutions with the objective of identifying the role academic libraries have played so far in open education initiatives, especially the use of open educational resources (OER).

[This spreadsheet](#) shows the raw data captured from institutions and organizations across the country, only some of which are detailed in this report.

You may also wish to consult the following [data visualizations](#) based on our findings.

The coordination of OER activities varies greatly across the country, but libraries tend to lead in the provision of information about OER. They often collaborate with teaching and learning centres to provide services and support to faculty and instructors to adopt, adapt or create such resources, and engage with students to advocate for affordable learning materials.

Approximately one third of the institutions included in the scan mention activity related to OER on their websites. Universities are more likely to provide information about OER (60%) than colleges and cégeps (20%), but the latter tend to work more collaboratively to create resources, such as the [OER Toolkit](#) in Ontario.

British Columbia stands out as a key player in OER and open education more generally: 63% of BC institutions included in this scan participate in OER activities. These institutions benefit from the ongoing leadership and financial support of [BCcampus](#), a publicly funded provincial organization that has fostered a very active open community and collaboration between colleges and universities in rural and urban BC. Two institutions stand out for their recognition of open education at the highest levels and for their investments in substantial grants: the University of British Columbia (UBC) and Kwantlen Polytechnic University (KPU).

Such provincial support in the form of funds, infrastructure and other commitments are often the catalyst for organized OER activities. Inspired by BCcampus, provincial governments in Ontario, Alberta, Manitoba and more recently Quebec have invested in similar organizations or initiatives (although some of this funding was of limited

duration and is no longer active). However, despite endorsements of a [UNESCO declaration on OER](#) by the Council of Ministers of Education of Canada¹, no Canadian province or territory has adopted an OER policy for its education sector, and institutional policies meant to encourage the creation and use of OER remain rare.

The development and use of OER in French-language institutions remain rather limited, especially in small colleges and universities serving francophone minority populations. The adoption of the Quebec government's [Digital Action Plan](#) and the creation of [La Fabrique de ressources éducatives libres \(REL\)](#) is starting to address this gap. Only 15% of institutions with French as the primary language of instruction mentioned any involvement in OER compared to 40% of English-language institutions.

Another important gap is the small number of Northern and Indigenous institutions engaging in OER activities (9%). While funding remains a challenge, the lack of home internet and computer access among students constitute significant hurdles in the wider adoption of OER.

Due to the ephemeral nature of the Web and the lack of available or public information about particular OER initiatives or services on institutional websites, this environmental scan also points to a common situation: the development of OER is not yet an established service or a core activity for most institutions and academic libraries in particular.

Methods

This scan represents a snapshot of the state of open educational resource support in Canadian postsecondary institutions. The data compiled in this report was collected between June and December 2019 by members of the Environmental Scan subgroup of the CARL Open Education Working Group.

The subgroup developed a list of Canadian postsecondary institutions for inclusion in this scan. The list drew from multiple online sources, particularly the membership lists of Universities Canada and Colleges and Institutes Canada. It includes universities, colleges, and cégeps, and both private and public institutions, although the emphasis was on those that are publicly funded. The scan also included selected provincial,

¹ The Council of Ministers of Education of Canada (CMEC) is an organization of 13 provincial and territorial ministries of education. In response to [UNESCO's 2012 Paris Declaration on OER](#), CMEC first discussed OER at a national meeting in 2012. The Ministers reaffirmed their commitment to open access and to adapt educational practices to the new realities of information sharing. After further discussions in 2013, the ministers unanimously endorsed the Paris Declaration. This has played an important role in the growing support for OER across Canada and has been instrumental in the establishment of OER initiatives in the western province

regional, and national organizations that are involved with open educational resources in some way, identified via web searching. The complete list had over 250 institutions and 15 organizations. The scan was divided into regions: Francophone/Quebec, representing institutions and organizations either in Quebec or where the primary language of instruction is French; Atlantic, comprising institutions and organizations in Prince Edward Island, Nova Scotia, New Brunswick, and Newfoundland and Labrador; Ontario; Prairies, comprising institutions in Alberta, Saskatchewan and Manitoba; BC; Northern/Indigenous, representing institutions either located in the territories or those identified as Indigenous institutes; and Other, for national organizations.

The subgroup also developed a [data capture sheet](#) to record details about OER initiatives at these institutions. This data capture sheet comprised seven sections:

- **Institution:** basic data about the institution or organization being scanned, including name, province, and approximate FTEs where applicable;
- **OER Initiatives:** information about the overall model of support provided for OER creation and adaptation, including lead unit, governance, and funding;
- **Services:** a record of what types of OER-related services were being provided. Support options related to education, finding OERs, adapting OERs, editorial support, licensing, and using technology. There was also a catch-all “Other” designation to record types of support not anticipated in the creation of the data capture sheet.
- **Technology:** this section was used to record specific technologies available at the institution, such as OER creation/authorship tools and an OER repository.
- **Success stories:** this section allowed the scan to elaborate on instances of OER-related activities that seemed particularly good models for potential learning.
- **SWOT:** a strengths-weaknesses-opportunities-threats analysis of the support provided by the institution.
- An additional section for notes and examples from the literature specific to the institution.

Members of the subgroup completed the data capture sheet over the scan period. Institutional websites were the primary source of information for the scan. In some cases there was direct follow-up with known or identified contacts at the institution; some members also referred to external data sources such as the [Post-Secondary Directory](#) published by BCcampus.

Separate from the primary institution scan, a literature review was conducted in August 2019 using Google, Google Scholar and ERIC. The search for “open education”, “open educational resources”, and “OER” in English and “éducation ouverte”, “ressources éducatives libres”, and “REL” yielded some 55 scholarly articles,

presentations, media articles and reports related to OER in Canada. To capture results related to Canada without excluding regional or provincial content, searches in Google were conducted using the expressions above but limited to sites with a .ca domain.

Of the over 250 postsecondary institutions scanned, just under 90 were found to mention any sort of OER-related activities or initiatives on their websites. Due to the nature of the data collection, this scan should be considered a point-in-time view of publicly available data at selected institutions. Factors contributing to potential incompleteness of this report include the ephemeral nature of the web and lack of available or public information about particular initiatives or services.

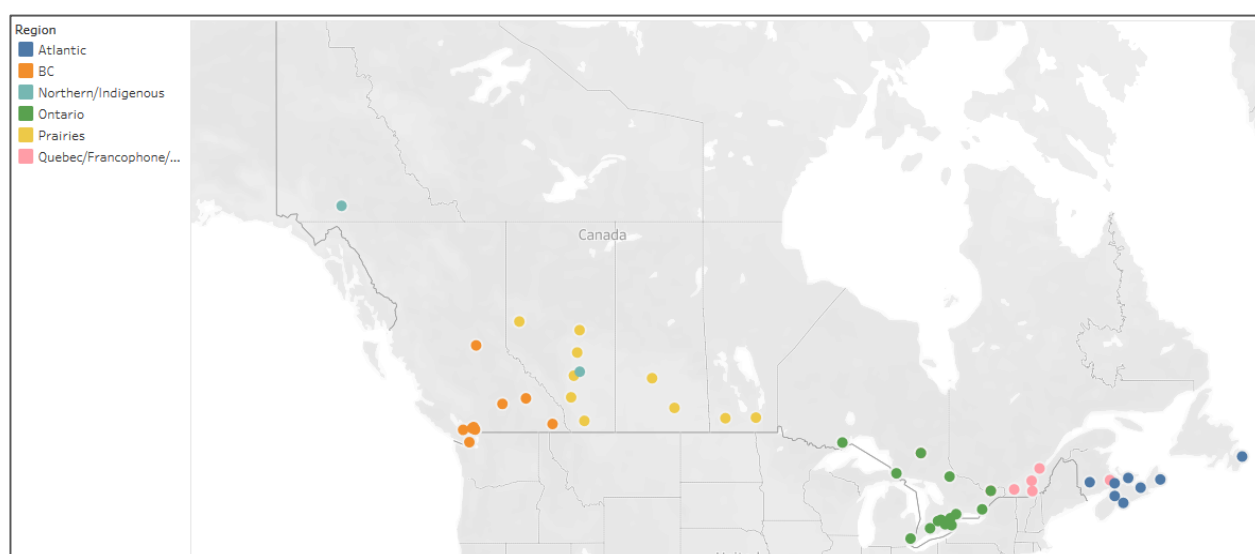


Figure 1: Canadian institutions and organizations with OER-related activities

Regions

Atlantic

- 34 institutions and one regional organization
- 12 institutions have OER involvement

All 12 of these provide some kind of educational offering and support for:

- finding OER
- 4 provide support for adapting OER
- None provide editorial support
- 11 provide help in licensing
- 3 provide support in using technology
- 2 provide technology specifically for creating OER
- 5 have repositories that specifically accept OER

The Atlantic Region can be characterized by the variety of types of institutions and the predominance of small to mid-range institutions in the region compared to other regions and territories in Canada.

Of the 34 institutions in the survey there is one medical doctoral institution (Dalhousie University), two comprehensive institutions (University of New Brunswick and Memorial University), with the region predominantly consisting of primarily undergraduate universities, with limited community colleges, and professional colleges. The majority of the institutions are publicly funded with a minority of private institutions.

OER development in the Atlantic Region has been challenged by a lack of financial incentivization and policy at both the provincial level and the institutional level and a lack of regional or provincial infrastructure to support the development of open educational resources. Within the Atlantic Region there are four provinces so advocacy to the government has, naturally, been undertaken at the provincial level. At the time of the survey there were no financial incentives in place in the Atlantic Region to encourage the development of OER and no specific institutional policies in place (as opposed to initiatives) to encourage development. However, since the survey was undertaken the province of PEI has announced it is providing \$25,000 to UPEI to administer financial incentives for the creation, adaption, and peer reviews of open educational textbooks and supplementary material. Details of the [program](#) were released in January 2020.

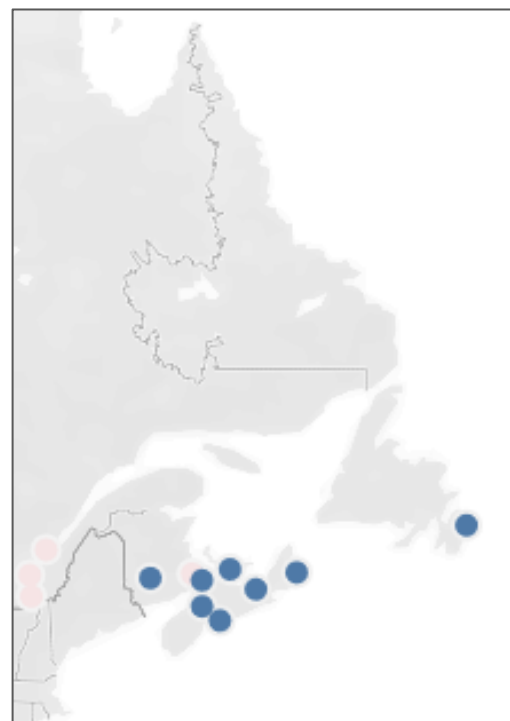


Figure 2: Atlantic institutions and organizations with OER-related activities

There are 12 institutions who have some level of OER involvement. The majority of these are engaged solely in the educative and informative support of open educational resources at this point rather than active creation or adaptation of open educational resources. Where the institutional level of support is solely at the educative and informative level of service (rather than creation and adaptation) the lead unit tends to be the Library. Many institutions provide LibGuides on open textbooks or OER and related issues such as licensing and copyright, or the respective Library will provide information upon request. Support surrounding licensing and copyright issues is frequently identified as being provided at the institution and usually at the respective Library.

Specific OER initiatives are already in place at a few institutions in the Atlantic Region, such as Dalhousie University ([*Environmental Science*](#)), the [University of Prince Edward Island](#), and the [Nova Scotia Community College](#). These initiatives are centred around the creation and adaptation of open textbooks. Governance structures for these initiatives vary with no particular pattern discernable. Sometimes the initiatives have been developed from the bottom up, led by faculty demand, as at Dalhousie University, and sometimes the initiatives have arisen from interest from the administration and the formal student organizations -- as for example at the University of Prince Edward Island. The governance structure of these initiatives tends to be shared between the respective Library and other unit(s). Illustrative examples are the Library and Centre of Learning and Teaching at Dalhousie University and at UPEI the working group has representatives from the library, professors, students, and administrators.

At the consortial level, the Council of Atlantic University Libraries (CAUL-CBUA) has clearly built cross-institutional support for open education resources, support that is indicated in its [strategic plan](#) (please see the Atlantic Spotlight section below for further details of this consortium's initiatives). Furthermore, multiple iterations of CAUL-CBUA open textbook working groups have surveyed the OER landscape in the region with the latest working group working to implement a regional infrastructure for open textbooks and financial incentivization.

Technological infrastructure to support the development of open textbooks in the region is present at some institutions. Dalhousie University, Memorial University, the University of New Brunswick and the University of Prince Edward Island currently have their own instance of Pressbooks. The Nova Scotia Community College uses the Pressbook installation at UPEI. Four institutions provide support for adapting open textbooks but no institution in the Atlantic Region at the time of the survey provides editorial support.

Selected Initiatives

Three examples of different kinds of institutions and organizations are spotlighted below as providing leadership and initiatives in the area of OER in the Atlantic Region. They are respectively a consortium, a primarily undergraduate institution, and a community college.

- **Council of Atlantic University Libraries (CAUL-CBUA):** CAUL-CBUA is a consortium of 18 post-secondary libraries in Atlantic Canada that is leading a collaborative approach to open textbooks in particular and open educational resources in general. The importance of open education resources is indicated by its inclusion as point 6.0 in the [CAUL strategic plan](#). The consortium provides an educative and informative approach to open educational resources with an educative *LibGuide*, workshops (in person and webinars) for the region, and a digital scholarship toolkit. Currently, a working group of the CAUL Scholarly Communications Committee is implementing an open textbook repository. The consortium [will be providing](#) a repository, an installation of Pressbooks, and financial incentives for reviews of open textbooks. An overview of opinions on, attitudes towards, and uptake of open textbooks in the Atlantic Region is available in [an earlier report](#) from the working group.
- **The Province of Prince Edward Island (PEI) and University of Prince Edward Island (UPEI):** UPEI and the Province of PEI are leaders in the area of open educational textbooks in the Atlantic Region. UPEI is a primarily undergraduate institution with approximately 4,400 students. In 2012, the Open Textbook initiative commenced at UPEI. The initiative was led by a [working group](#) made up of administrators, representatives from the student union, faculty and librarians. The aim of the working group is to encourage both discussion and adoption of open textbooks amongst faculty at UPEI. Eight open textbooks are [listed](#) as current adoptions and adaptations at UPEI.
 - The Robertson Library (UPEI) provides and maintains the infrastructure for open textbooks at the institution. This includes a local installation of Pressbooks and the [IslandScholar Repository](#) (Islandora Software) which allows them to provide print-on-demand services for students who want a print version of an open textbook.
 - UPEI is unique in the Atlantic Region in that the province is providing financial incentives for the creation of open textbooks and supplementary material. UPEI will be administering \$25,000 CAD to incentivize the development of open textbooks and supplementary material. Financial incentives will be available for the creation of new open textbooks, adapting open textbooks, and the creation of supplementary material. This [program](#) was launched in January 2020.

- **Nova Scotia Community College (NSCC):** NSCC has 14 campuses across Nova Scotia with an FTE of over 10,000 students. NSCC faculty have adopted or adapted over 15 open textbooks. Open textbooks with formal adoptions are added to the *NSCC OER LibGuide*. Each textbook, along with accompanying supplementary material, is added in a separate *LibGuide* content box. The embed code for the textbook box is shared with faculty to embed in Brightspace providing students with immediate and easy access to the textbook within their course. The School of Access, Education and Language is mid-way through a curriculum plan to move to full OER in the Access program. Planning is now underway with senior leaders on institutional prioritization with considerations for policy development. NSCC Libraries piloted the use of Pressbooks through a cooperative arrangement with UPEI and has now purchased their own instance of PressBooks. NSCC Library staff provide OER support for faculty who are interested in finding OERs to use in their courses.

Québec, Francophonie, and Bilingual Institutions

Québec institutions engaging in at least one type of OER activity:

- 9 out of 55 (16%) colleges/cégeps and universities (francophone, bilingual and anglophone)
 - 1 out of 31 (3.2%) francophone colleges/cégeps
 - 0 out of 5 (0%) bilingual or anglophone colleges/cégeps
 - 1 out of 36 (2.8%) colleges/cégeps
 - 3 out of 8 (37.5%) bilingual or anglophone institutions
 - 0 out of 5 (0%) bilingual or anglophone colleges/cégeps
 - 8 out of 19 (42%) universities
 - 5 out of 16 (31%) francophone universities
 - 3 out of 3 (100%) anglophone universities

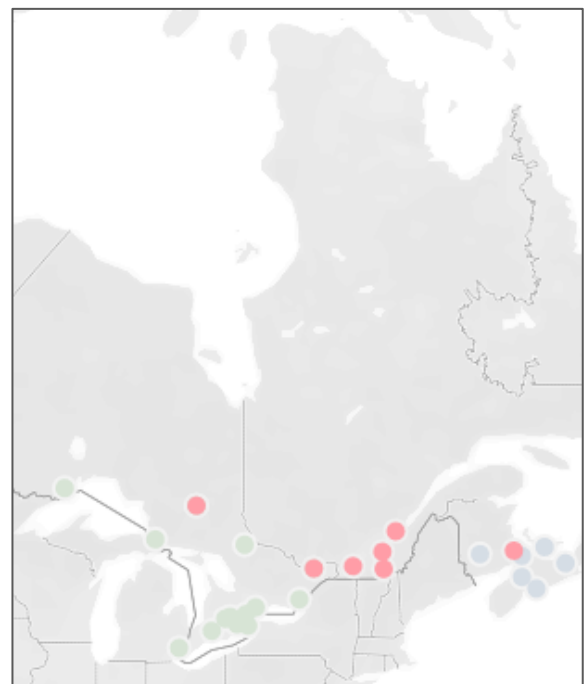


Figure 3: Québec institutions and organizations with OER-related activities

Francophone or bilingual outside Quebec – individual institutions engaging in at least one OER activity:

- 5 out of 16 (31%) bilingual or francophone institutions
 - 2 out of 12 (16.7%) francophone institutions
 - 3 out of 4 (75%) officially bilingual institutions (all in Ontario)
 - 4 out of 8 (50%) bilingual or francophone universities
 - 1 out of 8 (12.5%) francophone colleges

The development of open educational resources in Quebec and other French-language Canadian institutions is still rather limited. Also, there does not appear to be any concerted or sustained effort at adopting, adapting or creating OER in small colleges and universities serving francophone minority populations outside Québec.

That said, in Québec, there are some initiatives currently underway to provide a framework for OER community leaders in that province and possibly beyond. The Québec government adopted a five-year [Digital Action Plan for Education and Higher Education](#) in June 2018. Two key measures involve supporting the development of OER: Measure 11 “Support the acquisition and development of digital educational resources” and Measure 21 “Bring together distance education offerings at the college and university levels – eCampus Quebec,” which includes the implementation of a platform to host and discover resources.

Selected Initiatives

For the last few years, francophone universities in Québec have been exploring how to develop a better selection of online courses and resources. Academic advisers and other professionals of the “[Service de soutien à la formation](#)” at the Université de Sherbrooke, the [Centre de pédagogie universitaire](#) at Université de Montréal, and the [Bureau de soutien à l’enseignement](#) at Université Laval have joined forces with librarians at all three institutions to put forward [La Fabrique de ressources éducatives libres](#). The objective of this project is to contribute to the development of high-quality OER for postsecondary institutions in the francophone world. It also aims to reinforce collaboration within institutions and engage faculty in creating, developing and sharing OER while participating and contributing to the selection of online courses and resources through the [eCampus Québec](#) project. For now, funding comes mainly from the Ministère de l’Éducation et de l’Enseignement supérieur. Some universities in Québec have created guides and lists of selected documentation to help promote OER use and creation. It is hoped that the momentum created by the eCampus Québec project and La Fabrique will translate into more institutions participating in the creation of OER.

As for the postsecondary colleges and cégeps in Québec, there are a few initiatives that are not institution-specific but are led by an active community of librarians and

other professionals who work to promote and develop OER. For example, the [Centre de documentation collégiale](#), [Vitrine-Technologie-Éducation](#), and the [Centre collégial de développement de matériel didactique](#) (CCDMD) are the main entities that apply their expertise to developing adaptable and shareable material, having expanded their activities beyond their original focus on educational technologies, distance education, and online resources. They are also partners in analysing the [feasibility of implementing a portal](#) that would allow the post-secondary community to submit and discover digital resources for education and OER.

Initiatives are also being pushed forward by students in the three English-language universities in Québec. Bishop's Student Representative Council is trying to “raise awareness surrounding OERs and encourage professors to use OERs in the classroom” by launching the [SRC's Open Education Resource \(OER\) Project and Campaign](#). Concordia has different initiatives to bring open education to the forefront. The Library has long been responsive to student concerns about the cost of textbooks, and has had a print textbook collection for many years in collaboration with the student union. As an extension, students are very supportive of open textbooks and working very closely with the Library on its OER initiative. An OER [guide](#), a program of [grants](#), and a support service has been created for faculty wishing to adopt or create open textbooks encouraging the adoption and/or customization of open textbooks, and OER more generally. These initiatives fall under an [institutional digital strategy](#) involving other stakeholders like the Centre for Teaching & Learning. At McGill, the Student Society and the Library collaborated on a [report outlining the challenges and opportunities of OER](#).

Elsewhere in Canada, other francophone initiatives are taking place. In 2017, through its funding program, eCampusOntario specifically encouraged proposals to create original French content. The following year eCampusOntario sponsored a one-day conference on French-language OER in Ottawa, bringing together professors, instructional designers and librarians from Ontario, Quebec and Western Canada. In March 2019, the organization launched a bilingual platform for its [Open Library](#) and hired a Francophone Initiatives program manager, with the objective of offering its expertise to francophone and bilingual institutions and contributing to a larger community of French-language OER stakeholders in Canada and beyond. The organization partnered with La Fabrique in Québec to provide training and help develop a few “sprint” activities.

Also in Ontario, the Collège La Cité offered an online course, “[Recherche de ressources éducatives libres](#),” through which participants learned about searching for and using OER while respecting usage rights to optimize the development of online learning. The course has since been converted into a free [open textbook](#). Three bilingual universities are starting to see the potential of and need for OER, especially in French. At the University of Ottawa, a coordinated approach for OER is only

starting to emerge. The Teaching and Learning Support Service (TLSS) has been active in providing technical expertise and funding for the creation of hybrid courses and interactive learning objects, including open resources, such as the bilingual [OrgChem101 Learning Lab](#). In 2019, the Library collaborated with TLSS to mark Open Education Week with events for professors and students, including an OER expo. Behind the scenes, the Library has been leading efforts to address the affordability of course materials with Textbook Broke campaigns, pushing for a campus-wide working group to raise awareness and devise solutions. With its new “Open Scholarship and Digital Initiatives” division, it is currently exploring ways to leverage its expertise to support OER use, adaptation and creation in the long term and the implementation of the university’s [new strategic plan](#), which includes promoting and rewarding the development of affordable learning materials along with its continued commitment to Franco-Ontarian and Franco-Canadian culture. The development of French OER has been identified as a key action in this regard. Elsewhere, one project at York University’s bilingual campus, Glendon College, received eCampusOntario funding, resulting in the open textbook “[Résumer, synthétiser, argumenter](#).” The Laurentian University Library offers an OER [guide](#), which refers to the institution’s participation in two open textbooks and one open course (in English) funded by eCampusOntario, and the university offered a brief session on curating OER during its [Teaching and Learning Days](#) in April 2019.

In New Brunswick, the Direction générale des technologies (DGT) at the Université de Moncton had an agreement with the Organisation internationale de la francophonie (OIF) to create a MOOC on OER in 2014. The course was offered once, with the participation of 14 international experts. While there were over 1,200 registrations (with only 15% from the Americas), few completed the course and it was determined that the MOOC did not fit with the fundamental mission of the University, which is to assess and provide accreditation

Ontario

The data listed below provides a high level overview of the current state of activities surrounding OER in Ontario for 46 institutions and 4 regional organizations:

- 22 institutions have OER involvement
- 18 of the institutions provide some kind of educational offering
- 12 explicitly provide support for finding OER
- 7 provide support for adapting OER
- 3 provide some sort of editorial support
- 7 provide help in licensing
- 5 help with using technology
- 7 provide some other kind of support for OER
- 10 provide technology specifically for creating OER
- 6 have repositories that specifically accept OER

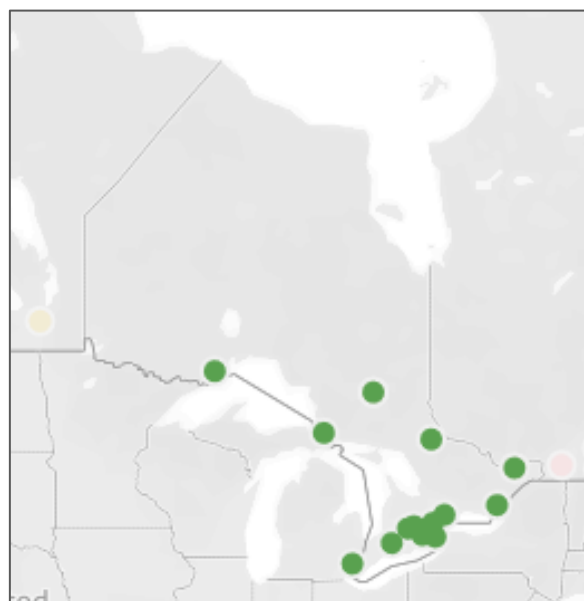


Figure 4: Ontario institutions and organizations with OER-related activities

One of the most important drivers of the open education movement in Ontario was the founding of [eCampusOntario](#) in 2015. This not-for-profit government-funded agency has played a significant role in moving the province forward in the creation and adoption of OER and open pedagogy. Through a variety of funding opportunities between 2016-2018 which were intended to improve access to digital education and learning resources, 81% of all universities and 75% of all colleges received funding. As a result, Ontario has a strong and collaborative open community.

Over 80% of Ontario institutions reviewed for this report have information on their website to varying degrees of detail, most of which is housed within the institution's library website. The colleges have a central one-stop resource for OER within the [Learning Portal's Faculty Toolkit](#). The [OER Toolkit](#) is a detailed resource, intended to support the creation of OER at colleges in Ontario. This extensive guide includes eight modules: About OER, Teaching, Curating, Creating, Licensing, Collaborating, Advocacy, and Sustainability. In general, college websites either have their own guide and/or link to the OER Toolkit.

Selected Initiatives

A few examples of initiatives are discussed below to illustrate the broad range in both type of activity and type of institution.

- **Brock University:** A Senate working group on OER was established in 2019 with cross departmental membership including the library, campus store, undergraduate and graduate student unions, Centre for Pedagogical Innovation and faculty. The group is tasked with investigating the viability of OER at Brock and making recommendations on the use, adoption, and creation of OER institutionally. As part of the working group's tasks, students were surveyed in the winter of 2020 using a modified version of the University of Guelph textbook survey instrument.
- **McMaster University:** The McMaster OER Committee (formerly Working Group) was formed as a grassroots initiative in Fall 2017. The University Library partnered with the MacPherson Institute and based their foundational documents on the Queen's University and Seneca College models. With an eCampusOntario grant, committee member Dr. Catherine Anderson published McMaster's first open textbook, [Essentials of Linguistics](#) (2018) for which she received the OUSA Teaching Award. Committee members were also involved in two #Textbookbroke Campaigns on campus.
- **Ryerson University:** In 2017, in partnership with eCampusOntario and Pressbooks, Ryerson University developed an open publishing infrastructure prototype designed to enhance and expand eCampusOntario's Open Textbook Library. 2019-2020 funding from the Library is being offered to encourage the creation and adoption of open educational resources. A maximum of \$32K is available.
- **Seneca College:** The Library hosts a Pressbooks installation. Funding for two grants equalling one course release has been made available to encourage the adaptation, enhancement and adoption of an existing open textbook.
- **University of Guelph:** The Library took the lead on a student [textbook survey](#) in 2016. Findings were consistent with other similar surveys which among other things, concluded that students are regularly opting to not purchase required textbooks. This survey, the first of its kind in Canada, set a benchmark and provides a model for further research for other Canadian institutions.
- **University of Ottawa:** [Growth and Goals](#) developed by Professor Alison Flynn to equip students for better learning. The course material is available on Google Drive in both [French](#) and [English](#) and is licensed under CC-BY-NC-SA. In recognition of her work on this and on OrgChem 101, Dr. Alison Flynn was awarded the Library's Open Scholarship Award in 2019. This non-monetary award was established in 2016.
- **[Gettin' Air](#) with Terry Greene:** This weekly podcast hosted by Terry Greene is devoted to discussing technology-enabled and open learning practices in post-

secondary education. Terry is a Digital Learning Advisor at Fleming College and the winner of the 2019 Open Education Award for Excellence in Open Pedagogy in Milan, Italy.

Prairies

The Prairies region comprises the 48 English-speaking institutions of Alberta, Saskatchewan and Manitoba, as well as two provincial-level organizations - Campus Alberta (now dormant) and Campus Manitoba. Twenty institutions in this region and both organizations have some level of involvement in promoting and supporting OER:

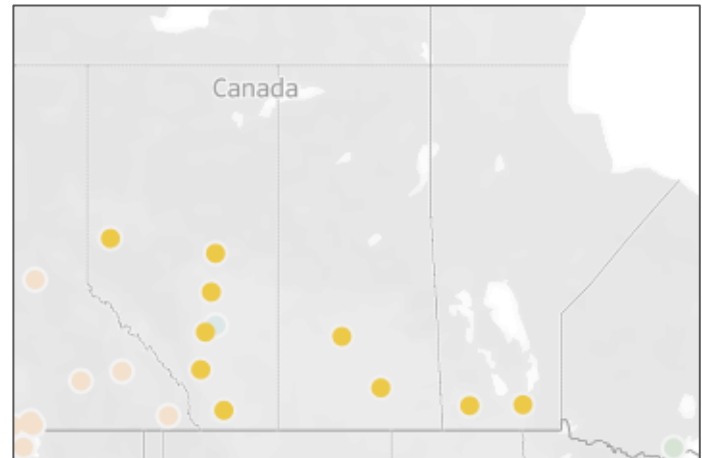


Figure 5: Prairie institutions and organizations with OER-related activities

All of the institutions involved in promoting/supporting OER provide some kind of educational offering:

- 10 explicitly provide support for finding OER
- 6 provide support for adapting OER
- 3 provide some sort of editorial support
- 5 provide help in licensing
- 7 provide some other kind of support for OER
- 2 provide technology specifically for creating OER
- 4 have institutional repositories that specifically accept OER

Among the initiatives where a lead unit could be identified, it was the library about half of the time; another common lead unit was the campus Teaching and Learning Centre or equivalent. One initiative at the University of Manitoba was led by the student union, which formed a working group on accessible education that advocates for OER alongside other priorities like tuition freezes and increased financial aid. The University of Lethbridge also had a working group that included representation from the student union as well as the library, bookstore, and faculty.

Models in this region ranged from top-down to bottom-up, but most did not have a specific mention of funding. Of those that did, MacEwan University offered an Open Textbook Fellowship Grant pilot; the University of Alberta, University of Calgary, University of Lethbridge, and University of Saskatchewan also had grant programs promoted on their websites, while the University of Regina mentioned having received provincial government funding to support open textbook creation.

The scan included two provincial organizations involved in promoting OER: Campus Alberta and Campus Manitoba.

- The **Campus Alberta Open Educational Resources Initiative** was a three-year program (now concluded) that involved BC and Saskatchewan in the development of common OER. The program distributed grant funding totalling \$1.76 million to various Alberta institutions to promote development and adoption projects, awareness initiatives, and an Alberta OER summit and repository. Content created via this initiative is hosted in the [BCcampus Open Textbook Library](#).

Campus Manitoba's Open Textbook Initiative, launched in 2015, was a partnership with BCcampus. The project took textbooks created or adapted by instructors in BC institutions and called on Manitoba instructors to review them in exchange for a \$250 honorarium. These reviews were then published on the [project website](#).

Selected Initiatives

- **Athabasca University** in Alberta is an online institution that promotes the concept of open education and is an innovator in that space. AU was the first Canadian member of the [Open Courseware Consortium](#), a founding member of [OERu](#), and a founding partner of Creative Commons Canada. The institution hosts a UNESCO/Commonwealth of Learning Chair in OERs and developed the Athabasca University Tutor Authoring Tool.
- **Southern Alberta Institute of Technology (SAIT)** has a board-adopted policy to “encourage the adoption, adaptation, and creation” of OERs. The institution’s [2018-2021 Open Education Strategic Plan](#) promotes institutional integration of OER and open pedagogy, with OER consideration being made part of the curriculum development and textbook selection processes. The plan also calls for funding for a full-time Open Education Librarian, the creation of a local OER repository, the development of a project registry and workflow, and the use of scholarly work time for OER projects. Eleven courses at SAIT use OER materials.
- **The University of Alberta** offers endowment-funded awards of \$75,000 per year “to support the use of OER to benefit teaching and learning”. Awards are granted to a maximum of \$8,000 per project. Projects are targeted to funding student workers who receive coaching from the Centre for Teaching and Learning to curate, customize and co-create OER, as well as to facilitate community/student/public engagement initiatives. The university also hosts the [Open Education Alberta](#) publishing program.
- **The University of Calgary** completed a pilot project in 2017-18 to hire an OER research assistant and provide ten project grants. These projects focused on

selecting or developing OER for particular courses; these include an [energy encyclopedia](#), a full first-year textbook for basic Spanish, and a databank of digital cell pathology images. The institution also led the development of the Shared Canadian Curriculum in Family Medicine (now [LearnFM](#)), which included virtual patient cases, flashcards, and assessment tools. This resource was listed by the United Nations as part of its compilation of Sustainable Development Goal projects.

- **The University of Lethbridge's** working group on open education includes representatives from the library, bookstore, faculty, teaching centre, and student union. The institution's Open Access Learning Resource Fund provides up to \$5000 to projects "to migrate current commercial homework systems or resources to in-house solutions that are free for the students". The accomplishments of their "OER Champions" include a communication course website, an open course pack for life sciences, and a set of seven modified open textbooks.
- The Teacher Education department of **Red River College** in Winnipeg is working on development of twelve modules related to teaching and faculty development, intended for use across Canada. This project includes an instructional user guide and planned modules related to foundations of instruction, instructional planning and the environment, instructional strategies and assessment, and reflecting on and improving instructional practice.
- **The University of Regina** received provincial funding to create the Open Textbook Publishing Program, which has published textbooks on such topics as Cree language, personal finance for Indigenous and non-Indigenous people, and leadership in nursing. The project includes grants for small OER projects as well as open textbook creation and adaptation.
- **The University of Saskatchewan** has also received provincial funding and also offers an OER grant program. The catalog of the institutional Open Academic Publishing Platform currently includes 14 titles, and the bookstore offers print-on-demand service for open textbooks. Since tracking began in 2014, OER have saved students at the institution [approximately \\$1.18 million](#).

British Columbia

27 institutions and one provincial organization were included in this scan

-
- 17 institutions have OER involvement
- 14 of the institutions provide some kind of educational offering
- 15 explicitly provide support for finding OER
- 11 provide support for adapting OER
- 2 provide some sort of editorial support
- 11 provide help in licensing
- 6 help with using technology
- 6 provide some other kind of support for OER
- 8 provide technology specifically for creating OER
- 10 have repositories that specifically accept OER

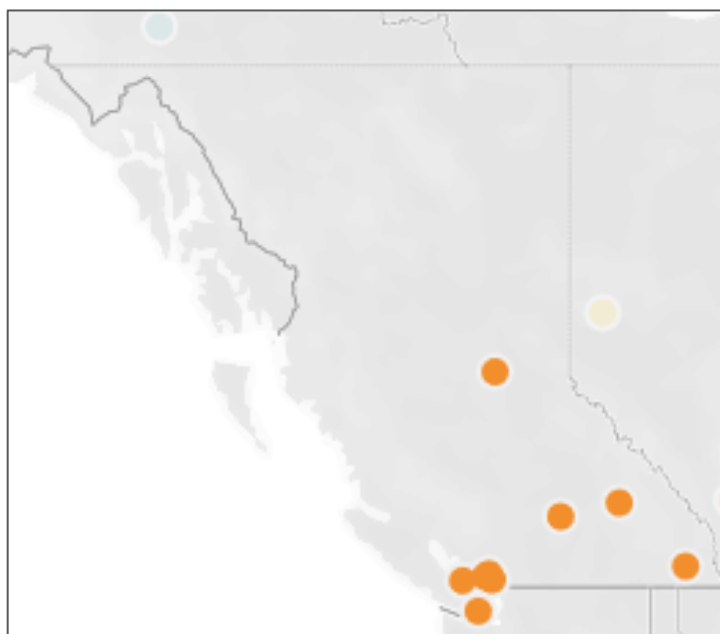


Figure 6: British Columbia institutions and organizations with OER-related activities

This report is by no means exhaustive; the Open community is very active in BC and so not every initiative could be listed. Instead, a few initiatives across the different types of institutions are highlighted.

The British Columbia post-secondary sector is collaborating closely across many institutions and many initiatives. BCcampus is a contributing factor in the success of the Open Ed movement within the province. Established in 2003, BCcampus was already showing signs of being a trendsetter with the establishment of its Online Program Development Fund which was the critical first step toward the successful implementation of the open textbook project. The vision established then allowed for the full launch of the BC Open Textbook project in 2012. Beyond saving students money, the Open Textbook Project could be seen as a game changer in how some institutions saw textbook creation at their individual campuses. In a sense, it formed a community that has now gone beyond textbook creation into open education, open scholarship and open practices. BCcampus continues to offer ongoing grants in open textbook reviews, support for EdTech fellows, sustainability grants, and many more opportunities.

The Libraries, Learning Centres and Centres of Teaching & Learning (names vary across institutions) seem to be the administrative units that are responsible for

supporting, monitoring and coordinating grants and projects for institutions in BC. One collaborative outcome of the open education movement in BC is the establishment of the [BC Open Education Librarians \(BC OEL\)](#). The BC OEL was established in 2013. Their mission offers this:

The BC Open Education Librarians is a supportive community for British Columbian librarians to learn about open education practices. We seek to build support for librarians and faculty in advocating for the use of open education resources in their home institution by sharing knowledge and practices that can impact higher education.

BCOEL members come from across BC with participating institutions varying in both size and type of credentials offered. Since forming in December 2013, this small, but active group developed as an answer to a collegial call for more awareness and advocacy for open textbooks and open education resources, and for working together to support BC faculty and instructors in using them (<https://bccampus.ca/2016/01/04/happy-birthday-bcoer-librarians/>). BC OEL advocates for Open through planning events, creating shared guides and documentation, and building a welcoming and accessible community of practice.

While the future of open education in British Columbia looks bright, threats still remain. Recently, organizations similar to BCcampus in other provinces have lost their government funding. Currently, BCcampus continues to thrive and has developed many different opportunities for institutions to benefit from funding, guidance and project management from BCcampus. Though many institutional open education programs are now sustainable, continued support on many levels from BCcampus is critical to the ongoing growth of open education in BC. Beyond provincial changes, many institutions see priorities shift when there are changes in senior leadership. It is therefore likely that practitioners will need to continue to agitate and coordinate across the sector to keep open education at the forefront of institutional and provincial priorities.

While BCcampus and individual institutions have been noted as strengths, the student support and advocacy in open education can also be seen as a strength in BC. Strong student-run campaigns have been seen at many institutions including the *#textbookbroke* campaigns at University of British Columbia and University of Victoria. Similar campaigns have also been supported at Douglas College and Kwantlen Polytechnic University. Student awareness of textbook costs and alternatives to publisher-driven content is certainly considered a strength of any open education program.

While BC continues to sustain a strong interest in open education, it will only benefit from coordination of similar efforts on a national level.

Selected Initiatives

A few institutions stand out in BC with their commitment and achievements with open education. Only a few initiatives will be discussed here to illustrate the broad range in both type of activity and type of institution.

- **Camosun College:** Open education at Camosun has spanned across the disciplines - from biology to the trades. Recently Camosun received a BCcampus grant to establish the Open Education Demonstration Initiative. *The initiative will bring together up to ten faculty with librarians, curriculum developers, and specialists in adaptive technology and Indigenization to redevelop ten courses using open educational resources and open educational practices over a 12- to 18-month period. A course redesign handbook will also be created so this initiative can be implemented at other institutions* (<http://camosun.ca/news/press-releases/2019/sep/open-textbooks.html>). Camosun continues to be one of the higher users of open textbooks in the province with over 124 classes using open textbooks as their core resource.
- **KPU:** Kwantlen Polytechnic University is the leader in textbook adoption in BC and in fact in Canada. With a dedicated management position for open education, Rajiv Jhangiani is known internationally for his outspoken advocacy on open education. Now established as a distinct office within the University, the open education office coordinates grants, fellows, and a ZTC (zero textbook cost) program (<https://www.kpu.ca/open/ztc>). KPU recently launched their seventh ZTC program which ranges from Certificate credential, right up to the full Bachelors degree. Recently the Open Office collaborated with the Library to establish OPUS - Open Publishing Suite, where faculty are supported by the library in publishing a textbook, releasing an OJS journal or working toward a ZTC course (<https://www.kpu.ca/library/OPUS>). Open practices are recognized by senior leadership at KPU and the work is filtered amongst many different departments - library, learning centres, the open education office and the individual faculties.
- **UBC:** The University of British Columbia is BC's largest research university, with a student body of over 42,000 FTEs. Open UBC (<https://open.ubc.ca/>) collects institutional open education projects across the broad categories of Access, Research and Education. The site offers ways to get started with open education including tutorials, grants, and examples of other open education projects. Some examples of open education projects at UBC include cIRcle, OJS, Digital Tattoo, and Open Case Studies. Open education at UBC is supported by the institution at its highest level and has output many different projects that are clearly described on the Open UBC website.

Northern/Indigenous

This region has significant opportunities for growth in support/use of OER, particularly given the relative geographic isolation of many of these institutions. Of the 22 institutions nationwide identified as being part of this category, only two had OER-related work apparent on their websites: Yukon College and Maskwacis Cultural College.

Yukon College (which

became Yukon University in May 2020) is located in Whitehorse. The library there has developed a basic

guide to OER for faculty, who have access to Pressbooks via BCcampus. Teaching and Learning Services also provide support for cocreation of OER with students. This institution has an extensive portfolio of course syllabi that have been released under a Creative Commons license, although there does not appear to be a central repository of these.

Maskwacis Cultural College is a private Indigenous institution in Alberta serving the Four Nations of Maskwacis; it has limited resources and rudimentary information technology infrastructure. In 2015 the college [received a \\$30,000 grant](#) from Campus Alberta to promote “stronger Indigenous perspectives in Alberta post-secondary learning.” The funding was used to localize courses on sociology and earth sciences and incorporate Indigenous knowledge and language. This pilot was well received by both staff and students, leading to work on a third course in Cree studies. The **itôtamowin** model included born digital resources and oral history recordings. A [case study](#) details the implementation of this model. A challenge to OER in this context was the lack of home internet and computer access among students, who then needed to visit the campus in person in order to access course materials. This particular challenge may be common to other institutions in this category as well.

Other Advocacy Initiatives

In addition to provincial and regional organizations like BCcampus, national organizations have a role to play in supporting the development and use of OER. An obvious example in this category is the Canadian Association of Research Libraries

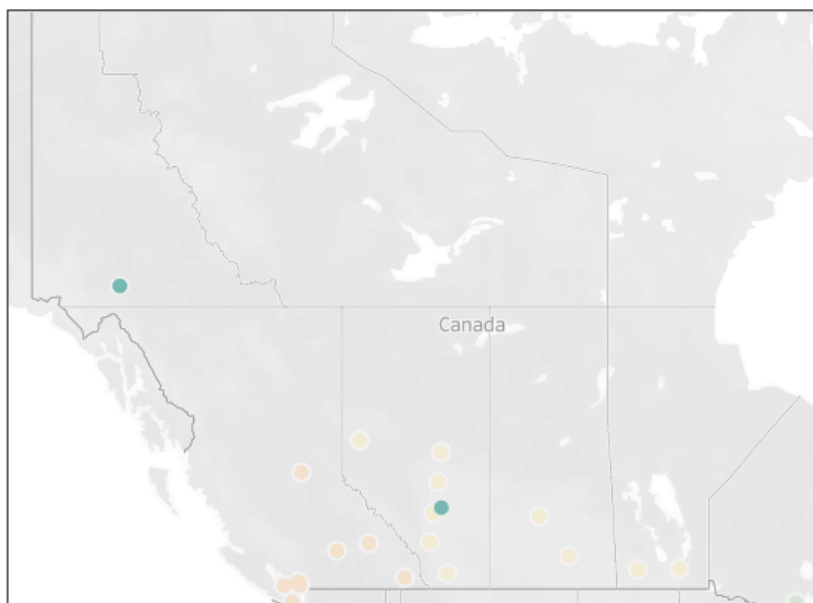


Figure 7: Northern and Indigenous institutions and organizations with OER-related activities

(CARL), which developed the [Open Education Working Group](#) responsible for the development of this report and a number of other resources and learning opportunities (e.g. webinars,) related to OER. Several other national organizations have publicly expressed their support or provided resources for open education, including the [Canadian Association of University Teachers](#), the [Canadian Association of Schools of Nursing](#), and the [Canadian Alliance of Student Associations](#). The latter, in collaboration with provincial student groups, have been the true leaders in this area.

Literature review

The scholarly literature specifically on open educational resources in Canada is growing but is still somewhat limited. There have been articles, book chapters and conference presentations on the “state of OER” in Canada since 2015, often led by the [UNESCO/ICDE Chair in Open Educational Resources](#) at Athabasca University. Most of these overviews start by addressing open access initiatives that have contributed to the infrastructure, the cultural impetus, and some of the content necessary for open educational practices and resources to emerge. British Columbia, Alberta and Ontario are presented as leaders as their provincial governments have provided significant funding for OER initiatives through their respective organizations, BCcampus, Alberta OER, and eCampusOntario. However, no Canadian province or territory has adopted an OER policy for its K-12 or post-secondary sectors. Lack of awareness is cited as the main obstacle to further OER growth in Canada, combined with minimal support for faculty to actively engage in the adoption, adaptation or creation of OER once they become aware. In that regard, the University of British Columbia is singled out as the only post-secondary institution where the creation of open resources is encouraged by counting towards tenure and promotion for individuals in the Education Leadership stream.

A number of associations have also released reports or white papers on open textbooks and OER, including the [Ontario Council of University Libraries](#) (2017), the [Council of Atlantic University Libraries](#) (2018), the [Canadian Association of Research Libraries](#) (2014) and the [Ontario Undergraduate Student Alliance](#) (2017). These documents generally point to an interest from libraries to play a role supporting the adoption and creation of OER, especially with regards to licensing, production, quality assurance, curation, technology, and awareness raising. They point to the need for institutional policies, incentives and funding, and to make those explicit to faculty, and that those efforts should include data on usage and satisfaction to properly assess successes and failures. So far, the top factor to support OER identified by those who are already familiar with open textbooks is cost reduction for students.

While there are Canadian researchers contributing to the global conversation about the use of OER and their impact, only a few studies focus specifically on the Canadian context. Key findings from these studies include:

- The largest number of open textbook adoptions is in the sciences and social sciences.
 - Barker, J., Jeffery, K., Jhangiani, R. S., & Veletsianos, G. (2018). Eight Patterns of Open Textbook Adoption in British Columbia. *The International Review of Research in Open and Distributed Learning*, 19(3). <https://doi.org/10.19173/irrodL.v19i3.3723>
- Faculty at research-intensive universities are more likely to adapt and create OER and seem to experience less difficulty in finding high-quality, relevant and up-to-date OER.
- Videos, images and open textbooks are the most frequently used types of OER.
- Faculty perceive OER to be of comparable or superior quality to traditional materials.
- Lack of institutional support was reported as being a more significant barrier than the availability of high-quality OER.
 - Jhangiani, R.S., Pitt, R., Hendricks, C., Key, J., & Lalonde, C. (2016). *Exploring faculty use of open educational resources at British Columbia post-secondary institutions*. BCcampus Research Report. Victoria, BC: BCcampus. https://bccampus.ca/wp-content/uploads/2016/01/BCFacultyUseOfOER_final.pdf
- Students perceive open textbooks to be of high quality and value the cost savings, the immediate access and the portability.
 - Jhangiani, R. S., & Jhangiani, S. (2017). Investigating the Perceptions, Use, and Impact of Open Textbooks: A survey of Post-Secondary Students in British Columbia. *The International Review of Research in Open and Distributed Learning*, 18(4). <https://doi.org/10.19173/irrodL.v18i4.3012>
 - Ross, H. M., Hendricks, C., & Mowat, V. (2018). Open Textbooks in an Introductory Sociology Course in Canada: Student Views and Completion Rates. *Open Praxis*, 10(4), 393–403. <https://doi.org/10.5944/openpraxis.10.4.892>
- Students assigned open textbooks performed the same or better than students with a commercial textbook.
 - Jhangiani, R. S., Dastur, F. N., Le Grand, R., & Penner, K. (2018). As Good or Better than Commercial Textbooks: Students' Perceptions and Outcomes from Using Open Digital and Open Print Textbooks. *The*

Canadian Journal for the Scholarship of Teaching and Learning, 9(1).
<https://doi.org/10.5206/cjsotl-rcacea.2018.1.5>

- Hendricks, C., Reinsberg, S. A., & Rieger, G. W. (2017). The Adoption of an Open Textbook in a Large Physics Course: An Analysis of Cost, Outcomes, Use, and Perceptions. *The International Review of Research in Open and Distributed Learning*, 18(4).
<https://doi.org/10.19173/irrodL.v18i4.3006>
- Ross, H. M., Hendricks, C., & Mowat, V. (2018). Open Textbooks in an Introductory Sociology Course in Canada: Student Views and Completion Rates. *Open Praxis*, 10(4), 393-403.
<https://doi.org/10.5944/openpraxis.10.4.892>

The institutions and organizations most active in OER research in Canada are KPU, UBC, Athabasca University, TRU, Mount Royal, University of Saskatchewan, BCcampus, and eCampusOntario.

Language

The vast majority of OER adopted, adapted or created in the post-secondary sector in Canada are in English. But there is a growing recognition that the gap in French-language OER needs to be filled, not just in Québec but in the rest of Canada as well. In the long run, there are concerns that not addressing this disparity could create a significant disincentive to study in French if studying in English turns out to be more affordable with a more widespread integration of OER in the curriculum. This preoccupation was shared by participants from across the country at the first (and so far only) [Séminaire de ressources éducatives libres \(REL\) francophones](#) held in Ottawa in early 2018.

This gap represents an opportunity for Francophone universities and colleges but also for bilingual institutions where such disparities will otherwise be felt first-hand in most of their academic programs. OER in the French language represent an alternative to the dearth of existing commercial textbooks in French adapted to a Canadian or Quebec context due to its small market. Even when suitable French teaching materials are available commercially, they are not updated as often as their English equivalents (for example, Campbell's *Biology*, Canadian Edition, is updated every two years while the French version is updated every four years) and if they need to be imported from France, they cost even more.

Translating and adapting existing English-language OER may be a more practical approach to bridging that gap in the short term, but in the long term and to ensure equity, it is essential to foster a culture of OER creation in French by providing an

infrastructure and financial support. French-language OER represent an opportunity to level the playing field and make French post-secondary education more accessible across Canada.

Conclusions

- One trend that was very apparent in this review was that institutions often had a LibGuide or similar informational website related to OER, but had no further information about OER supports or initiatives on their sites. Others had no readily findable information at all about OER on their websites, despite institutional use of OER or otherwise being involved in the area. Finally, with content on the Web being so ephemeral, information about open education events or activities that take place on campuses across the country is not preserved long enough to be considered in environmental scans, unless one knows where to look for them. We recommend that institutions generally and libraries specifically make their work more publicly visible.
- The BC region had the highest percentage of institutions participating in OER (63%) and the Northern/Indigenous region had the lowest (9%).
- Institutions where the primary language of instruction was English were more likely to be involved in OER initiatives (around 40%) than those at which the primary language of instruction is French (about 15%).
- Although there were outstanding examples of college OER initiatives, universities were much more likely to have OER discussed on their websites than cégeps or colleges: about 60% of universities surveyed did, compared to only about 20% of colleges/cégeps. However, there are some cases where colleges are known to be collaborating with or adapting university-led initiatives.
- While relatively few institutions offered copyright support specific to OER, many - including some without OER-specific information at all - had copyright-related educational materials elsewhere on their website that could be adapted for this purpose.
- Several institutions have been involved in international OER collaborations, such as [Open Education Resource universitas \(OERu\)](#): Thompson Rivers, Ryerson University's Chang School of Continuing Education, BCcampus, Kwantlen Polytechnic University, Athabasca University, and eCampusOntario are all involved in this initiative.

- It can be difficult to keep track of the outcomes of open content/education projects funded by institutions or organizations like eCampusOntario. [Funding announcements are made](#), but there does not seem to be a simple way to find out if those projects have been completed.
- We recognize that our scan methodology may have missed significant initiatives at particular institutions. We therefore invite anyone whose contributions have been missed to provide additions and corrections via our [data capture spreadsheet](#).