

**Open & Affordable Learning Materials Working Group**

**Report and Recommendations for  
Open Educational Resources (OER) Initiatives and Affordable  
Alternatives at uOttawa**

**January 2021 (revised March 2021)**



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## Executive Summary

The Open and Affordable Learning Materials Working Group (OALMWG) was created in late 2019 by the three project sponsors: Talia Chung, University Librarian and Vice-Provost, Knowledge Systems; Aline Germain-Rutherford, Vice-Provost, Academic Affairs; Michel Guilbeault, Associate Vice-President, Student Affairs.

The mandate of the working group is:

- To develop awareness and promote the use of affordable course content;
- To explore and recommend strategies to establish an environment at uOttawa in which the creation and adoption of OER is encouraged and rewarded;
- To coordinate efforts among key campus stakeholders who lead and support open education initiatives on campus.

There are already examples of innovation in open education on our campus; a dedicated community of open education enthusiasts composed of faculty members, the Teaching and Learning Support Service (TLSS), students, and librarians have developed open textbooks and innovative learning resources in recent years.

With the online migration of most uOttawa courses and reduced access to print resources during the COVID-19 pandemic, supporting the use and creation of OER has been identified as a priority and responds to uOttawa's [Transformation 2030](#) strategic objectives to "promote and reward the development of affordable learning materials" and "develop Open Educational Resources in French". Provincially, the Ontario's Budget 2020, reaffirmed the critical role of eCampusOntario in the postsecondary education system; eCampusOntario's [Virtual Learning Strategy](#) focuses on collaboratively designing digital learning environments that supports all learners, and on creating equitable access to quality, affordable and flexible education.

In addition to promoting the adoption, adaptation, and creation of OER to make course materials more affordable, more can be done to leverage the Library's extensive collections and the use of open scholarship more generally.

The working group recommends that uOttawa establishes an environment in which the creation and adoption of OER and the use of open and affordable teaching material is encouraged and rewarded. To achieve this goal, the working group recommends the implementation of the *Open and Affordable Learning Materials Program* based on incentives, recognition, training and support, maintenance, communication, and program evaluation. The working group recognizes the importance of ongoing coordination and communication among stakeholders, and therefore recommends that the group continues to meet as a committee going forward. A budget request will be put forward to fund the activities of this program.

It is recommended that the committee develop a plan for assessment and evaluation to gauge the success of the *Open and Affordable Learning Materials Program* and to determine if goals have been reached. These goals may include:

- Increasing the number of courses using the Library's Course Reserve Service for digital and print materials by 10% each year by 2023-2024 to reach 30% of course

offerings to reduce the use of expensive textbooks by leveraging the Library's existing resources to which students already have access. As of Fall 2020, 6% of courses use the service.

- Track and increase the amount of money saved by uOttawa students when OER or Library resources are used instead of commercial resources. According to eCampusOntario's [Learner Savings Map](#), **3,240 uOttawa students saved \$269,800 with the adoption of five OER in 16 course sections**. Hypothetically, replacing Campbell's *Biology* (3rd Canadian ed.) currently required in BIO 1130 - Introduction to Organismal Biology (a course with an enrollment of approximately 1,200 students in Fall 2020) could lead to savings between \$60,000 (\$49.99 for digital access code through publisher) and \$243,300 (\$202.75 for print textbook and digital access code at CampusStore).
- Double the annual number of OER grant recipients from three in 2020 (inaugural year) to six in the next five years.
- Increase the number of OER created by uOttawa faculty with a focus on French-language resources.
- Increase the number of Pressbooks users and double the number of projects by 2023 (36 users and 30 unique projects as of December 17, 2020).

## Recommendations

The recommendations from the report fall into four broad categories. They are:

- Category 1: raising awareness of OER and Open Education
- Category 2: supporting the use of existing OER
- Category 3: fostering the creation of new OER by uOttawa faculty (in particular the creation of French language OER)
- Category 4: encouraging the use of other affordable alternatives for learning materials.

## Mandate of the Open and Affordable Learning Materials Working Group

The Open and Affordable Learning Materials Working Group (OALMWG) was created in late 2019 by the three project sponsors: Talia Chung, University Librarian and Vice-Provost, Knowledge Systems; Aline Germain-Rutherford, Vice-Provost, Academic Affairs; Michel Guilbeault, Associate Vice-President, Student Affairs.

The membership of the group is as follows:

Nadia Abu-Zahra (Associate Professor and Joint Chair in Women's Studies, Faculty of Social Sciences)

Michelle Brown (Head - Learning & Student Success, Library)

Hélène Carrier (Chair / Associate University Librarian)

Joan Cavanagh (Chair / Associate University Librarian)

Theodore De Bruyn (Vice-Dean, Student Affairs, Faculty of Arts)

Danielle Dubien (Specialist, Educational Development and Digital Learning, TLSS)

Babacar Faye (President, UOSU)

Alison Flynn (Associate Professor, Faculty of Science, Department of Chemistry)

Marcelle Kimberley (Manager, Student Life)

Hubert Lalande (Manager, Digital Development, TLSS)

Natasha Landry (University Affairs Commissioner, GSAED)

Richard Pinet (Director, Centre for Innovative Pedagogies and Digital Learning, TLSS)

In addition, Mélanie Brunet (Copyright Services Librarian, Library) acted as resource person.

The group met from February to November 2020 with the goal to bring together campus stakeholders with a shared interest in advancing open education at uOttawa.

The mandate of the working group, which is found in its terms of reference, is as follows:

- To develop awareness and promote the use of affordable course content;
- To explore and recommend strategies to establish an environment at uOttawa in which the creation and adoption of OER is encouraged and rewarded;
- To coordinate efforts among key campus stakeholders who lead and support open education initiatives on campus.

## Textbook Costs at uOttawa and Need for Alternatives

OER are becoming increasingly important in higher education as they provide an alternative access to information and tools that can otherwise be prohibitively expensive for students. (Brunet and Brown, 2020). This financial pressure among students has been highlighted and intensified in the wake of the COVID-19 pandemic. A recent Statistics Canada survey indicated that many students had experienced job loss since the start of the pandemic and a significant amount were concerned about paying for their tuition and learning expenses (Statistics Canada, 2020).

The library's #textbookbroke campaigns have gathered feedback from students on

the costs of their textbooks for the past five terms (from Winter 2018 to Winter 2020 inclusive). On average, students across all faculties reported spending between 300\$ to 400\$ per term on textbooks (Brunet, 2020). Year after year, this is a significant amount spent on learning materials and substituting OER for even one or two courses during a student's program of study would likely result in substantial cost savings.

In Fall 2019, the Library launched its electronic course reserve system which provide students with quick and easy access to their course materials. With the pandemic, this service has become crucial to provide students access to their learning materials remotely. To date, the service has fulfilled requests for over 9,000 items which were embedded in over 1,300 courses at uOttawa (Ares, 2020). This has undoubtedly resulted in some cost savings for students who would have otherwise needed to locate their learning materials elsewhere.

## Defining Open Education Resources

The Scholarly Publishing and Academic Resources Coalition (SPARC) defines open educational resources as "[teaching, learning, and research resources that are free of cost and access barriers, and which also carry legal permission for open use](#)". SPARC summarizes OER as Free + 5Rs; the flexible and adaptable nature of OER materials ensures that these resources can be retained, revised, remixed, reused and redistributed by many users. This is made possible because of the application of an open licence that limits copyright restrictions, such as a Creative Commons licence.

A common authoring platform used to publish OER is [Pressbooks](#). It is available to all Ontario post-secondary institutions through eCampusOntario. Pressbooks allows authors to create structured digital documents that can include images, videos, and even interactive activities like quizzes and timelines using the open-source [H5P plugin](#). uOttawa has now access to a free Pressbook Campus licence via the eCampusOntario shared licence plan.

## Context and Background on OER at uOttawa

An extensive [environmental scan](#) of the status of open education at academic institutions in Canada was recently completed by the Canadian Association of Research Libraries (CARL) Open Education Working Group.

An examination of this existing environmental scan would shed light on which practices already in place work best to support faculty in the creation of OER at uOttawa. Some of these existing initiatives may work in our context and some may not be possible. Existing or well established programs to explore may include the [Open UBC program](#) and [Kwantlen Polytechnic University \(KPU\) Open Education program](#).

There are already many examples of innovation in open education at uOttawa. A dedicated community of open education enthusiasts composed of faculty members, TLSS, students, and librarians have developed open textbooks and innovative learning resources such as Professors Flynn and Kerr's openly-licensed [guide on remote teaching](#) shared in eCampusOntario's Open Library, the student-driven [CHM1311/1711 Open Textbook](#), the

chemistry interactive resources [OrgChem101](#) and [Fiche Org Flash Cards](#), the learning to learn module [Growth and Goals](#), the [Learning to Teach Online website](#) for pre-service teachers, Professors Zweibel and McRae's [Point First Legal Writing Academy](#), and the [Using Game-Based Learning Online "Cookbook"](#).

Almost a decade ago, two key university-wide initiatives, the Blended Learning Initiatives and the Open Access Program, set the foundation for the development of an OER program at uOttawa. Recommended by the E-learning Working Group in 2013, TLSS's Blended Learning Initiative combined the best of online and face-to-face teaching and aimed to convert 20% of the course offering, roughly 1000 courses, into a blended format. The program included incentives, recognition, support and training; incentives to develop a new blended or hybrid course such as funding for professors to convert existing courses into blended learning versions, recognition such as the *Excellence Award for Innovation in Educational Technologies - Blended Learning* and a variety of training and support options to meet the needs of individual professors (TLSS, 2016 and Taylor & Bastien, 2017). The initiative concluded in 2019 and professors and programs who had taken advantage of this program were well positioned when the pandemic required a rapid transition to online learning.

As a leader in open access in Canada, uOttawa has a strong record of supporting open initiatives. The uOttawa Library was an early champion of the Open Access (OA) movement in scholarly communication. The Open Access Program provides incentives such as financial support for open access publishing, visibility and recognition through the Library's *Open Scholarship Award*, training and professional development opportunities through web resources, workshops and webinars tailored to various audiences and support by developing open access policies, an open journals hosting platform, investing in OA consortial projects (such as Erudit) and building the uO Research infrastructure, a digital repository for research and teaching material created by the university community.

Still at an early stage, uOttawa began to introduce elements of incentives and training to encourage the creation of OER. The University's Office of the Provost and Vice-President, Academic Affairs, and Carleton University jointly launched the first round of the Shared Online Projects Initiative ([SOPI](#)) and funded the creation of 54 courses that will be available under a Creative Commons licence (TLSS, 2020); the second round of the initiative was announced in October 2020. In winter 2020, the Library developed an OER Program and awarded its first OER grants to three professors for a total of almost \$15,000 to support the creation of new resources in translation, teacher education, and chemistry (Copyright Office, uOttawa, 2020). In terms of training and professional development opportunities, TLSS and the Library host an Open Education Week and offer a series of OER-related webinars (such as Introduction to Creative Commons Licences and Creating and Integrating Interactive Learning Objects with H5P Studio). Librarians have completed the [SPARC Open Education Leadership Program](#) and have been serving on the [Canadian Association of Research Libraries' Open Education Working Group](#).

With the online migration of most uOttawa courses and reduced access to print resources during the COVID-19 pandemic, supporting the use and creation of OER has been identified as a priority and responds to uOttawa's [Transformation 2030](#) strategic objectives to "promote and reward the development of affordable learning materials" and "develop Open Educational Resources in French." (UO Transformation 2030, 2020). It also aligns with the Library's own long-standing commitment to open access, which is confirmed

in its [2020-2025 strategic plan](#) (UO Library Strategic Plan, 2020). Finally, in this context of uncertainty and constraints, as current and prospective students consider their options for 2020 and beyond, OER-based programs and courses are more important than ever to maintain or even increase registrations. Given all these developments, it is clear that now is the time to accelerate the adoption of OER (CARL, 2020).

## Budget Request

Summary of funding required for the *Open and Affordable Learning Materials Program*, in alignment with the working group’s recommendations:

| Component  | Description  | Services  | Yearly Cost | Timeline              |
|--|--|---|-------------|-----------------------|
| Incentives<br><br>(Category 2: Support the use of existing OER<br>+<br>Category 3: Foster the creation of new OER by uOttawa faculty)  | Expand the existing OER Library Grant program (currently at maximum of \$5,000 per grant, without dedicated fund in annual budget) to support:<br>-the creation of OER in French<br>-the adaptation/translation of existing OER<br>-the adoption of OER and affordable materials to design zero-cost courses<br>-the maintenance, update and training components of existing uOttawa OER | Library TLSS<br><br>(fund could be jointly managed by both units)           | \$40,000    | Starting in 2021-2022 |
| Recognition<br><br>(Category 2: Support the use of existing OER<br>+<br>Category 3: Foster the creation of new OER by uOttawa faculty) | Recognition/award for using OER in courses<br><br>Recognition/award for using affordable learning materials leading to a zero-cost course  | Library TLSS<br><br>(fund and award could be jointly managed by both units) | \$10,000    | Ongoing               |

|  |   |  |  |  |
|--|---|--|--|--|
| <p>Training and Support</p> <p>(Category 1: Raise awareness of OER and Open Education + Category 2: Support the Use of Existing OER + Category 3: Foster the creation of new OER by uOttawa faculty)</p> | <p>Positions:</p> <p>Open Education Coordinator: dedicated position to develop policies about open and affordable alternatives, training and capacity development (including open pedagogy), project management and development best practices, instructional design support, integration into LMS - work closely with Open Education Librarian</p> <p>Open Education Librarian: dedicated position for outreach, training and capacity development, identification, curation and evaluation of existing OER, copyright review and licensing, OER hosting, archiving and discoverability, Pressbooks and H5P support, work closely with Open Education Coordinator</p> <p>Infrastructure: Pressbooks Growth Plan Single Sign-On access through eCampusOntario</p> | <p>TLSS</p> <p>Library</p> <p>Library</p>          | <p>\$90,000</p> <p>\$90,000</p> <p>\$10,000 (currently no additional cost - dependent on eCampusOntario's own annual budget)</p> | <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> |
| <p>Promotion</p> <p>(Category 1: Raise awareness of OER and Open Education)</p>  | <p>Student ambassadors (for OER and affordable alternatives)</p>  | <p>Library</p> <p>UOSU<br/>GSAED<br/>CUPE 2626</p> | <p>\$10,000 (5 x \$2,000)</p>  | <p>Ongoing</p>                               |
| <p>Program Evaluation</p>  | <p>Research Assistant (10 hours a week)</p>   | <p>TLSS or Library</p>                             | <p>\$16,000</p>  | <p>Ongoing</p>                               |

|                                  |  |  |                  |  |
|----------------------------------|--|--|------------------|--|
| <b>Total ongoing annual cost</b> |  |  | <b>\$256,000</b> |  |
|----------------------------------|--|--|------------------|--|

## Recommendations by Category

### Category 1: Raise Awareness of OER and Open Education

An important aspect of moving forward open education initiatives at uOttawa is awareness building and training opportunities for the University community. Although the Library has taken the lead on developing and organizing training and/or awareness building events, it is imperative that they are created and delivered in collaboration with other key services and units on campus such as Student Affairs and the Teaching and Learning Support Service (TLSS). These awareness building activities can take the form of workshops or webinars that are geared towards the various audiences and that may feature experts from both uOttawa and from other institutions.

#### **Workshops and Training Opportunities**

Faculty and librarians have already identified the challenge of finding quality OER, especially in French and in some disciplines and understanding copyright and open licensing as areas requiring further training. Workshops on Pressbooks and H5P Studio will also help OER adapters and creators make their resources available for use and reuse on two platforms provided by eCampusOntario. These training opportunities are essential to continue to build capacity for OER use, adoption and creation at uOttawa.

#### **Developing a Coordinated Communications Strategy for OER**

A second prong in the plan to build awareness of OER on campus is a well developed communication strategy. Further steps would include developing targeted messaging via Twitter and other social media, as well as developing an OER website which would pull together information on the University's vision for OER programs on campus.

#### ***Recommendations:***

- In collaboration with TLSS, develop an Open Education training and support program tailored to various stakeholder groups such as new professors orientation, faculty, research and teaching assistants, graduate students, and library staff. This could be expanded into an Open Education training certificate.

- Align with a project to create a Consortium with Francophone and/or bilingual institutions in Ontario and across Canada to support the development of French-language OER.
- Launch a promotional campaign to all faculties and departments that stresses the benefits of OER and of using open and affordable course content.
- Continue meeting as a permanent committee and foster an OER community of practice

## Category 2: Support the use of existing OER

OER are critical in the current educational landscape of online learning. Creating a new OER is time consuming and requires specific skill sets and software. For these reasons, we support the use of existing OER as a quick and easy way for faculty to integrate open and affordable learning materials into their courses. Students can easily access the learning resources without the need for a password or special software and they do not need to borrow a physical copy from the Library or purchase one from a bookstore.

In the past few years there have been examples of innovation and education surrounding OER on the uOttawa campus. Events like Open Education Week and the Library's #TextbookBroke campaigns have brought the importance of affordable learning materials to front of mind for students and faculty. We can build on these awareness-raising efforts by providing more in-depth, specific, and timely information on how to find and use existing OER and where to get help if questions arise.

### **Increasing Discoverability, Access to, and Maintenance of OER**

There is a growing interest among faculty and students in the use of OER, but many have indicated that knowing where to search for good quality, previously vetted OER is a common barrier to their use. There are several knowledge experts on campus whom they can turn to for help with OER integration in courses. The Library can assist with finding quality content that will meet learning outcomes. The Copyright Office can answer questions dealing with copyright or Creative Commons licensing. TLSS are experts in online pedagogy and also manage the University's learning management system so they can assist with how to use open learning materials in an online environment.

Many OER repositories exist that have curated high quality learning materials. Although the metadata in each repository varies, learning objects are usually fairly easily searchable and organized by discipline or topic. One challenge for Canadian educators is that many OER repositories lack French language materials. It is also difficult to find resources that are tailored to the local context, and some subject areas have far more learning materials available than others. Another drawback to searching large repositories is that there is often overlap between them, and the versioning is not always indicated.

The best known Canadian repositories include [BC Campus's Open Textbook Collection](#), [eCampusOntario's Open library](#), and the newly created [Fabrique REL](#). Many of these repositories include at least some French language materials as well as those with an

Indigenous perspective. Some of the learning objects have been created with an eye to provincial curricula or specific learning outcomes. Other popular repositories which are based in the U.S. include [OpenStax](#), [OER Commons](#), and the [Open Textbook Library](#).

## **Adapting OER**

While there are many ways to adapt OER for the uOttawa context, it is perhaps translation that is the most appealing method. There is a lack of OER available in French and translating English language OER into French is one way to address the shortage of open learning materials in French.

### ***Recommendations:***

- Investigate platforms to host OER developed at uOttawa and options for discoverability. Invest in the maintenance of the selected platform.
- Encourage the translation and adaptation of existing English-language OER into French as one way to address the need for open learning materials in French, especially from a Canadian perspective.
- Provide funding for the maintenance and update of existing uOttawa OER. Although OER themselves may be free, there is a cost to maintaining OER in the form of periodic copyright audits, checking web links, purchasing platforms to host OER, updating technology, and keeping up to date with versioning of OER (Karpel and Schneider, 2018).
- Support recipients of grants meant to encourage open and affordable course materials (for example SOPI, Library OER grants) with timely assistance and training (inspired by TLSS's Design-a-thon format) on copyright, licensing, accessibility, hosting, and other relevant topics to help them meet project requirements.

## **Category 3: Foster the Creation of New OER by uOttawa Faculty**

There are several barriers that can impede the ability of faculty members to create their own OER. These challenges are known and not unique to uOttawa professors. These obstacles include lack of time, lack of access to and knowledge of the technology such as authoring platforms, lack of funding, as well as lack of awareness of copyright and licensing issues.

### ***Recommendations:***

- Develop expertise and support Pressbooks and H5P Studio as authoring platforms for OER.

- Increase funding of the Library's OER grants to support the creation of OER among faculty, further develop the process of evaluating grant proposals and encourage the creation of French language and/or bilingual OER.
- Recognize faculty and instructors who use OER in their courses or who create OER.
- Draft OER adoption and production workflows which are adapted to the unique uOttawa context.
- Create new APUO and other union positions that are dedicated to Open Education workflows (these positions can be librarians, library staff, professors, instructional designers, and RAs).
- Investigate the possibilities of ongoing incentives in the form of course release allowing faculty to spend time on redesigning their courses to make them zero-cost or to adapt/create an OER, and policies that recognize open education in the tenure and promotion process.

#### Category 4: Encourage the Use of Other Affordable Alternatives

In addition to promoting the adoption, adaptation and creation of OER to make course materials more affordable, more can be done to leverage the Library's extensive collections and the use of open scholarship more generally. In Fall 2019, the Library officially launched its electronic [course reserve service](#) based on the Ares platform, providing students with a single point of access for all their course materials. In 2019 the Library fulfilled requests for 2,807 items which were used in 562 courses. From January 2020 to October 2020, the library processed requests for 7,071 items which were used in 800 courses. This marked increase in the number of requests completed demonstrates that in the context of the pandemic, this service has become more important than ever to provide access to course materials remotely 24/7.

##### **Recommendations:**

- Increase the use of the Library's Course Reserve Service among faculty and instructors by 10% every year to reduce the use of expensive textbooks by leveraging the Library's resources to which students already have access.
- Work with the Registrar to include notes in the [Course Timetable](#) for courses that do not require the purchase of materials (i.e. zero-cost courses).
- Adapt and promote a voluntary [faculty pledge](#) supporting affordable course materials to continue raising awareness about textbook costs among professors.
- Adopt a methodology to measure, evaluate and communicate costs of learning materials and savings achieved by using OER and affordable alternatives.

## Proposed Timeline and Next Steps

The proposed timeline and steps for moving forward are:

- January 2021: Present the report to the three project sponsors (Talia Chung, University Librarian and Vice-Provost, Knowledge Systems; Aline Germain-Rutherford, Vice-Provost, Academic Affairs; Eric Bercier, Associate Vice-President, Student Affairs).
- February 2021: Draft terms of reference and confirm membership of a new Open and Affordable Learning Materials Committee in order to sustain coordination of the program and communication among the stakeholder groups.
- Spring 2021: further consulting with faculty to identify priority needs and continuing to conduct environmental scans of the OER landscape in Canadian post-secondary institutions to gain a better sense of where uOttawa is uniquely positioned to fill a gap and develop short and long term vision for OER initiatives at the University.
- May 2021: Fund and create the *Open and Affordable Learning Materials Program* as a vehicle to implement the recommendations from this report.
- May 2021: Draft work descriptions and staff new positions.
- June 2021: Translate and publish the Working Group Report under a Creative Commons Attribution 4.0 International licence in uO Research.
- January 2022: Assess and evaluate progress of the program and impact of the working group's recommendations, including consulting with faculty, to be repeated annually.

## Reference List

Brunet, Mélanie. (2020) Textbook Costs and Affordable Alternatives at the University of Ottawa. <http://hdl.handle.net/10393/40237>

Brunet, Mélanie, and Brown, Michelle. (2020) An Open Educational Resource (OER) Program - Recommendations for UO Library Network. [https://docs.google.com/document/d/13nC3b6K3592yA8QbRQ4x\\_wu-7tuzX7Ty4FDCdlSzpS0/edit?usp=sharing](https://docs.google.com/document/d/13nC3b6K3592yA8QbRQ4x_wu-7tuzX7Ty4FDCdlSzpS0/edit?usp=sharing)

Canadian Association of Research Libraries Open Education Working Group (2020). Environmental Scan of Open Education Service and Support in Canada [https://www.carl-abrc.ca/wp-content/uploads/2020/07/OEWG\\_environmental\\_scan\\_eng.pdf](https://www.carl-abrc.ca/wp-content/uploads/2020/07/OEWG_environmental_scan_eng.pdf)

Canadian Association of Research Libraries, "The Time is Now for Open Educational Resources," (July 16, 2020): <https://www.carl-abrc.ca/news/the-time-is-now-for-oer/>

Copyright Office (uOttawa), "library OER Grant Recipients - Winter 2020," <https://copyright.uottawa.ca/news/library-oer-grant-recipients-winter-2020>

Karpel, Nicole and Bruce Schneider. (2018). "OER Cost Assessment Strategies," EDUCAUSE Review, <https://er.educause.edu/articles/2018/12/oer-cost-assessment-strategies>

Statistics Canada (2020). Covid- 19 Pandemic: Financial impacts on postsecondary students in Canada. <https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00016-eng.htm>

Taylor, Maurice and Maria Bastien. (2017). "The 'Bricks and Clicks' Towards Success: A Discussion Paper on a Blended Learning Project at the University of Ottawa," [https://tlss.uottawa.ca/site/files/docs/TLSS/research-unit/Bricks\\_and\\_Clicks\\_Web.pdf](https://tlss.uottawa.ca/site/files/docs/TLSS/research-unit/Bricks_and_Clicks_Web.pdf)

Teaching and Learning Support Service (uOttawa). (2016). "Report on the Blended Learning Initiative: September 2013-November 2016," [https://tlss.uottawa.ca/site/files/docs/TLSS/blended-report/Rapport\\_Initiative\\_Hybride\\_English.pdf](https://tlss.uottawa.ca/site/files/docs/TLSS/blended-report/Rapport_Initiative_Hybride_English.pdf)

Teaching and Learning Support Service (uOttawa). "Shared Online Projects Initiative (SOPI)," <https://uottawa.saea-tlss.ca/en/shared-online-projects-initiative-sopi>

University of Ottawa, Transformation 2030, [https://transformation2030.uottawa.ca/sites/default/files/DGC19\\_1135\\_T2030\\_BROCHURE\\_ENG\\_W\\_EB3.pdf](https://transformation2030.uottawa.ca/sites/default/files/DGC19_1135_T2030_BROCHURE_ENG_W_EB3.pdf), pp. 13 and 16.

University of Ottawa library, "Strategic Plan 2020-2025," <https://biblio.uottawa.ca/en/strategic-plan-2025>