TLEF Project – Final Report

Report Completion Date: (2019/06/25)

1. PROJECT OVERVIEW

1.1. General Information

Project Title:	Library Support for Open Textbook and OER Creation
Principal Investigator:	Leonora Crema; Stephanie Savage Co-Investigator
Report Submitted By:	Leonora Crema, Stephanie Savage
Project Initiation Date: April 1, 2018	**Project Completion Date:** May 31, 2019
Project Type:	☐ Large Transformation ☒ Small Innovation ☐ Flexible Learning ☐ Other: [please specify]

1.2. Project Focus Areas – *Please select all the areas that describe your project.*

☒ Resource development (e.g. learning materials, media)

☒ Infrastructure development (e.g. management tools, repositories, learning spaces)

☐ Pedagogies for student learning and/or engagement (e.g. active learning)

☐ Innovative assessments (e.g. two-stage exams, student peer-assessment)

☐ Teaching roles and training (e.g. teaching practice development, TA roles)

☐ Curriculum (e.g. program development/implementation, learning communities)

☒ Student experience outside the classroom (e.g. wellbeing, social inclusion)

☒ Experiential and work-integrated learning (e.g. co-op, community service learning)

☐ Indigenous-focused curricula and ways of knowing

☐ Diversity and inclusion in teaching and learning contexts

☒ Open educational resources

☐ Other: [please specify]

1.3. Project Summary . In spring 2018, the Library began working with faculty members to promote use and creation of open textbooks and OERs. The project began with a series of adjudicated subgrants to enlist faculty interest and partnership. Both open textbooks and other types of open resources were solicited in order to experience the full range of open resources and pedagogies in use at UBC.

The project began with launch meetings with the faculty partners to define roles and deliverables. Students were hired to assist faculty directly, and 2 project GAAs were hired in the Library providing central support. Work on projects began with several mid-course check-ins to ensure progress was being made. We purposely took a flexible approach, serving simply as 'funders' for student time in a few cases, but in the majority of projects playing a hands-on role in content creation.

In all, through this project 10 open textbooks and OERs were created or enhanced, in formats ranging from videos to simulations to traditional open texts. An additional open resource was created by a project student providing a guide to LaTeX-Pressbooks conversion. We conducted faculty and student assessments near the end of the projects; an overview appears in Appendices B & C. The Library also gained significant knowledge about the kinds of platforms and service issues that would be involved in sustaining such a service.

From our perspective, the project was a resounding success. We fulfilled – in fact, we exceeded – our core objectives:

- we produced or contributed to production of 10 open resources (our target was 8)
- we gained valuable insights into faculty approaches to OERs;
- we contributed to resources that either saved students money, or provided unique learning materials;
- we offered 11 students experiential learning through their work on this project;
- as a library, we gained the necessary business intelligence to help us judge and scope future services in the OER arena.

1.4. Team Members – *Please fill in the following table and include **students**, undergraduate and/or graduate, who participated in your project.*

Name	Title/Affiliation	Responsibilities/Roles
Leonora Crema	Scholarly Communications Librarian	Project Co-Lead
Stephanie Savage	Scholarly Communications Librarian	Project Co-Lead
Zachary Foote, Emily Homolka	iSchool GAAs	Library project students providing technical support with OER platforms including Pressbooks; project assessment.
Cavell Chan, Joseph Deeth, Anna Doebeli, Meredith Gilespie, Laura Greenstreet, Noah Heyl, Shannon	UAAs and GAAs	Direct faculty support

Lawrence, Nicholas Loewen, Mielle Michaux		

1.5. **Courses Reached** – *Please fill in the following table with __past__, __current__, and __future__ courses and sections (e.g. HIST 101, 002, 2017/2018, Sep) that have been/will be reached by your project, including courses not included in your original proposal (you may adapt this section to the context of your project as necessary).*

Course	Section	Academic Year	Term (Summer/Fall/Winter)
HIST376	001	18/19	fall/winter
MATH100	101-107, 109	18/19	fall/winter and ongoing
MATH101	201,205-207, 2090-11, 213	18/19	fall/winter and ongoing
MATH104	101-109	18/19	fall/winter and ongoing
MATH180	101, 102	18/19	fall/winter and ongoing
GEOG321	n/a	18/19	fall/winter
GEOG122	n/a	18/19	fall/winter
GEOB270	n/a	18/19	fall/winter
GEOB370	n/a	18/19	fall/winter
CPSC221	n/a	18/19	fall/winter and ongoing
PHIL220	001	18/19	fall/winter and ongoing
PHIL220	004	18/19	fall/winter
PHIL220	005	18/19	fall/winter
SOWK572a	001	18/19	fall/winter
POLI421	001	18/19	fall/winter
PHYS117	001	18/19	fall/winter

2. OUTPUTS AND/OR PRODUCTS

2.1. *Please __list__ project outputs and/or products (e.g. resources, infrastructure, new courses/programs). Indicate the current location of such products and provide a URL if applicable.*

Product(s)/Achievement(s):	Location:
Digital Meijis: Revisualizing Modern Japanese History at 150 (Open monograph)	https://pressbooks.bccampus.ca/meijiat150/
Using LaTeX in Pressbooks (Open Educational Resource created by one of the project students)	https://pressbooks.bccampus.ca/introtolatex/
Forall x: UBC Edition (supported enhancements to this Open Textbook, both in new content and making changes in LaTeX)	https://github.com/jonathanichikawa/for-all-x
CLP Calculus Textbooks Graphics Guide (supplementary resource to support the creation of accessible open math textbooks for students with visual impairments)	Temporarily available at http://nloewen.com/clp/graphics/
Under Creative Construction (OER – video. The video was premiered with community member participation in one of the class sessions)	https://youtu.be/7Z5qZ7F2KkY
Sparking Better Health: Improving the Lives of Women and Girls Through Integrative Practices (OER, video)	https://www.youtube.com/watch?v=81z0zUW6DAA&feature=youtu.be
Social Work video-based case study simulations (our project provided additional resources and support to this work, principally by technical setup using a branch logic assessment structure on Qualtrics. PB at the time lacked this functionality.)	Not currently available online (forthcoming under a separate TLEF project)
Open Data Structures (our project supported improvements to this Open Textbook)	http://opendatastructures.org/
Physics Meta-Cognitive Reader (our project supported student time only; no direct involvement)	Forthcoming from Simon Bates, as part of another TLEF project
Human Geography open textbook (existing OER, revised text and problem sets; resolved copyright and IP questions)	https://opentextbc.ca/geography/
Pressbooks Training Session – for faculty	September 2018
Pressbooks Training Session – library staff	June 2019
Pressbooks Training Session – for faculty	in planning for October 2019 (with Lucas Wright)

2.2. Item(s) Not Met – *Please list intended project outputs and/or products that were not attained and the reason(s) for this.*

Item(s) Not Met:	Reason:

The only item we will not produce is a separate report for the Library, proposing what the next steps of an OER service should be.	Events have (happily) overtaken us with the new UBC OER grant program and its plans for dedicated library support. In light of this, a separate report outlining possible library next steps in OER seems superfluous. Instead, we will share this report with Library leadership.

3. PROJECT IMPACT

3.1. Project Impact Areas – *Please select all the areas where your project made an impact.*

☒ Student learning and knowledge

☒ Student engagement and attitudes

☒ Instructional team teaching practice and satisfaction

☒ Student wellbeing, social inclusion

☐ Awareness and capacity around strategic areas (indigenous, equity and diversity)

☒ Unit operations and processes

☐ Other: [please specify]

3.2. What were you hoping to change or where were you hoping to see an impact with this project? – *Please describe the intended <u>benefits of the project</u> for students, TAs, instructors and/or community members.*

Our principal intended benefits and outcomes were to:

- save students money and raise their awareness of OERs

- partner with faculty in OER projects and by so doing, learn about their needs for support

- raise faculty awareness of what the Library can offer in the open publishing arena

- gain experience with open platforms, technologies, and publishing methods

- involve students directly in the production of OERs, and help them acquire career-related skills

3.3 Were these changes/impacts achieved? How do you know they occurred? – *What evaluation strategies were used? How was data collected and analyzed? You are encouraged to include copies of data collection tools (e.g. surveys and interview protocols) as well as graphical representations of data and/or scenarios or quotes to represent and illustrate key themes.*

In order to assess impact, we engaged in three evaluation strategies, developed for each of the three groups involved:

1) **Faculty Partners**

   We conducted interviews with 6 faculty partners to assess their overall experience with the project and specifically, the Library's involvement in OERs. We also asked what they would hope to see for ongoing sustainable support. ***Several faculty commented that the Library had played an important role in their work in issues such as copyright, CC licensing, publishing and dissemination platforms, and serving as cross-disciplinary connectors with others doing similar work. Most expressed the hope to see some sort of sustained Library support. Two other faculty members who heard favorable reports of our work from colleagues approached us late in the project: in one case, the individual lacked sufficient time to devote to her open textbook, before our project ended; and in the other case the format (open software creation & coding) was beyond our technical and budgetary capacities.***

2) **Student Partners**

   Eleven students were hired under this project to work with us and our faculty partners directly. In order to assess their experience, we administered a Qualtrics survey (Appendix B), meant to gauge their learning, work experience, and value of this exposure to open approaches. ***Students consistently expressed what a valuable learning experience this had been for them. This was especially true for students involved in creating new content or resources. One of the students turned his experience into a presentation at the Cascadia Open Education Summit 2019, and hopes to publish it. Another said that through this work he had gained vital, marketable skills that he could not have acquired any other way.***

3) **Students in classes using the open resources**

   Finally, we wanted to evaluate the impact of the open resources we were helping to create and did this by asking our faculty partners to disseminate a Qualtrics survey (Appendix C) to classes in which our TLEF-supported resources were being used. This survey was meant to capture student awareness of OER, their sense of cost savings, and attitudes towards using OER as alternatives to traditional materials in their classes. ***Students' feedback about their OER class experience was very positive. See a sampling of results in Appendix C.***

3.3. Dissemination – *Please provide a list of __past__ and __upcoming__ scholarly activities (e.g. publications, presentations, invited talks, etc.) in which you or anyone from your team have shared information regarding this project.*

- **Library Publishing Forum, Annual Conference, 2019 Preconference Session; Leonora Crema and Stephanie Savage, presenters.** Slides available at: https://docs.google.com/presentation/d/1dZjPGIUvajsm06EDyZSRDG9nqtiq9LlhCkujdZpQLpE/edit?usp=sharing

- **Two Library staff sessions about the project,** held under our Open Scholarship series in April and May 2019.

- **A project website at: https://scholcomm.ubc.ca/tlef2018/**

4. **TEACHING PRACTICES** – *Please indicate if <u>your</u> teaching practices or those of <u>others</u> have changed as a result of your project. If so, in what ways? Do you see these changes as sustainable over time? Why or why not?*

We can't accurately judge the effect on teaching practices, nor was it our objective to change these. It did, however, strike us that we were often working with faculty who were already adopters of open methods (in some cases already holders of TLEF grants) and who wanted to take these the next level. We were also struck by how many faculty were motivated to create or customize OERs, less for cost savings than as a way of improving the curricular materials being used or giving students opportunities for co-creation.

5. **PROJECT SUSTAINMENT** – *Please describe the sustainment strategy for the project components. How will this be sustained and potentially expanded (e.g. over the next five years). What challenges do you foresee for achieving the expected long-term impacts listed above?*

Through this project the Library was able to survey the landscape of OER activities on campus, and experience open textbook publishing end-to-end. It immediately became clear to us that certain aspects of OER creation require substantial time investments, for example, copyediting and proofreading, design and layout, iterating versions and problem sets, and video editing. Although we successfully mastered Pressbooks, the number of OER projects using LaTeX and containing extensive scientific and mathematics formulae was a surprise to us, and is not yet comfortably within our skillset.

We concluded at the end of this pilot project, that the Library does not currently have staffing capacity to fully manage or 'groom' the content for any meaningful number of OER projects, in a full-service publishing sense. Simple layout of proofread, edited content in Pressbooks we estimate to take 10 working days for a 200-page monograph (consisting of English text and images) which is quite manageable. A baseline service for this might be offered through 1fte-1.5fte of added staff support. But this does not account for other activities such as working with faculty through re-editing, creating interactive problem sets (using H5P or other platform), LaTeX-to-Pressbooks conversion, citation formatting, or other design and editing tasks common to OER production.

Our immediate next step, therefore, will be to play a more basic role offering Pressbooks training, copyright and CC consulting, simple Pressbooks setup, strategies for dissemination, and generally advising faculty members as they undertake these projects, working in partnership with CTLT. We are already making plans to collaborate with CTLT on a fall Pressbooks training session, and have updated the Library's Digital Publishing Services site https://scholcomm.ubc.ca/publishing-services/ as follows:

"UBC librarians can advise you on the publishing strategies and systems to best meet your goals. We can also help in navigating the range of open access vs. traditional paywall models available. Librarians can be contacted for [consultations](#) on topics including online journals, open textbooks and OERs. As well, our [Research Commons](#) workshops cover a variety of publishing topics throughout the academic year.

Pressbooks is easy-to-use book production software supported by BCcampus. Write your own book, adapt an existing open textbook, or import an existing manuscript. You can choose a design theme, and export into common file formats you will need to publish books. We can help you to get started on Pressbooks, use templates for front matter, and identify copyright or Creative Commons considerations."

As a next-stage development, we are tremendously excited that at the time of writing, a new campus OER fund of approximately $250,000 annually is being planned. This is a bold step that will offer much-needed capacity for faculty members, CTLT, the Library and others to engage more fully with creation and adoption of OERs at UBC.

Appendix B: Student Partners Survey Tool

UBC Library Student Employees: OER and Open textbook Survey

Start of Block: Default Question Block

We are sending this survey to students who worked with us on the Open Textbooks - Open Educational Resources (OER) project. The survey will take less than 5 minutes to complete. All responses are confidential. Thanks for taking the time to complete this survey

Q1 Which UBC faculty member did you work with?

_____

Q3 Prior to this project, how familiar were you with Open Textbooks and OERs?

○ Very familiar

○ Somewhat familiar

○ Not familiar

Q4 Has working on this project changed how you, as a student, view Open Textbooks and OERs?

○ They are more valuable to me than before

○ About the same

○ Don't value them highly

Q5 Has working on an Open Textbook/OER positively impacted your educational experience?

○ Yes

○ Somewhat

○ No

Q6 Are the skills you learned in this project (technical, professional, etc.) useful for your career goals?

○ Very useful

○ Somewhat useful

○ Not useful

✳

Q7 What new skills, if any, did you gain as a result of your work on this project? For example, improved my writing, new technical skills, time management, etc.

_____

Q8 Overall how would you rate your experience with the project?

○ Positive

○ Neutral

○ Negative

Q9 Do you have any other comments for us?

_____

End of Block: Default Question Block

Appendix C: Sample of Survey for Students using OER in their Class

Open Textbooks: Students PHIL 220

Start of Block: Default Question Block

Your instructor has chosen to use an Open Textbook in your class PHIL 220. In comparison to a traditional, commercial textbook, Open Textbooks are works that are free of cost and available to all.

The following survey asks about your experience with the open textbook used in your class. It will take about 5 minutes to complete. Responses are confidential and will be used to help us assess the quality and potential of open textbooks.

Thank you for taking the time to take this survey from the UBC Library.
For any questions or concerns please contact:
Emily Homolka
ehomolka@mail.ubc.ca

Q1 Prior to the experience of using an open textbook in this class, how familiar were you with Open Textbooks?

○ Very familiar

○ Moderately familiar

○ Slightly familiar

○ Not familiar at all

Q2

In terms of your learning experience, which of the following would you generally prefer?

◯ Open Textbook

◯ Traditional textbook

◯ A combination of open and traditional textbooks

◯ No Preference

Q3 How did you primarily access the Open Textbook?

◯ Digitally (i.e. online or through a screen)

◯ Print

◯ Mixture of both

Q4 When compared to other similarly demanding class, has the use of an Open Textbook reduced the overall cost of this class?

◯ Yes

◯ No

◯ Not sure

Q5

Overall, how satisfied are you with your experience using an Open Textbook?

○ Very Satisfied

○ Somewhat satisfied

○ Neutral

○ Somewhat Dissatisfied

○ Very Dissatisfied

Q6

What benefits did you experience (if any) while using the Open Textbook? Please comment.

(For example: easy to access, reduced cost, well organized, easy to find what you are looking for).

_____

Q7

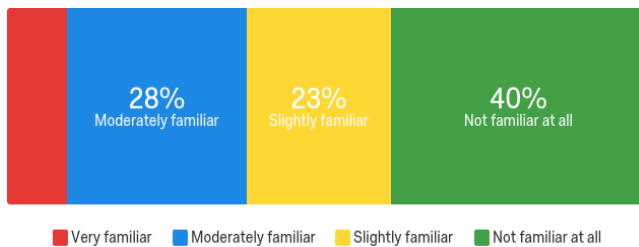What challenges did you experience (if any) while using the Open Textbook? Please comment.

(For example: lack of access to necessary technology, difficulty taking notes, knowing where to find the resource, more difficult to study online).

_____

Q8 Please tell us anything else about your experience using the Open Textbook in class.

_____

End of Block: Default Question Block

SELECTED RESULTS:

Q1: Increased Student's Familiarity with OERs and Open Textbooks.

We asked: Prior to the experience of using an open textbook in this class, how familiar were you with Open Textbooks? Results show 40% of the sample had no familiarity prior to using the text in this class. This suggests there is more room for promoting OERs to students.


28%
Moderately familiar

23%
Slightly familiar

40%
Not familiar at all

■ Very familiar   ■ Moderately familiar   ■ Slightly familiar   ■ Not familiar at all

Q2: Enhanced Students' Overall Learning Experience

We asked: In terms of your learning experience, which of the following would you generally prefer? Over 80% prefer open textbooks to traditional ones, 12% prefer some combination, and 6.67% had no preference. Notably, *none* said that they preferred traditional textbooks.

6.67%
12.00%
81.33%

■ Open Textbook   ■ Traditional textbook   ■ A combination of open and traditional textbooks

■ No Preference
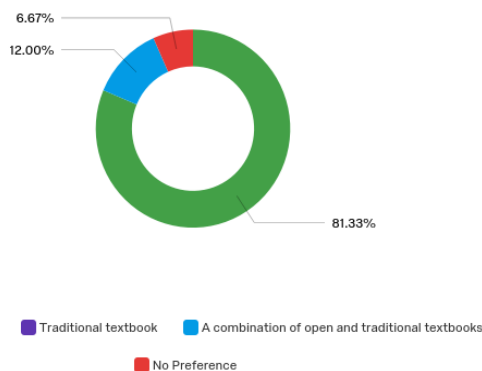
Q4: Saved students money

We asked: When compared to another similarly demanding class, has the use of an Open Textbook reduced the overall cost of the class? More than 70% of students said it had.
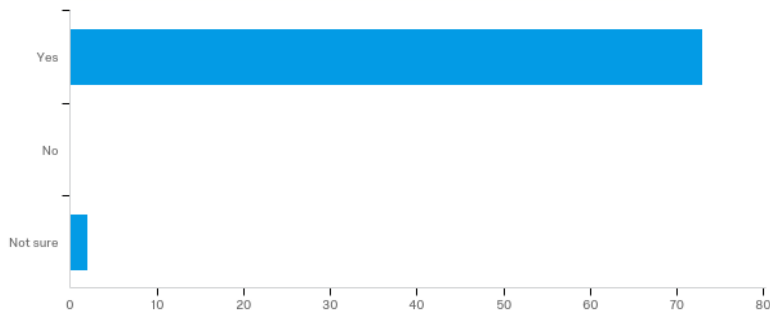
Q8 Other student comments about OERs in their class:

- "10/10"

- "Having this (a free, open access textbook) for my class was a very welcome surprise!"

- "Since our professor wrote the book, it was designed specifically for the class. It made it really easy to refer back to the textbook when looking over lecture notes, concepts, problems, etc."

- "It was great! I think all courses should have open textbooks to provide a better experience for students who are struggling financially."

- "It's imperative Open Textbooks become more mainstream if we are to continue to say that university is for everyone."