# eCampusOntario Infrastructure for Open Publishing of Learning Resources

Fangmin Wang
Head, Library Information Technology Services,
Ryerson University Library & Archives (RULA)



# **Project Objective**

Build a prototype open publishing infrastructure to integrate and extend the BC Open Textbook Library that will be migrated from BCcampus to eCampusOntario in May 2017 with a project completion date of Aug. 31, 2017



# Project deliverables

A working Pressbook prototype Deliverable 1 with enhanced features Integrate an open source repository Deliverable 2 Community building and Deliverable 3 knowledge mobilization Learning module authoring and Deliverable 4 distribution prototyping

# **Key Deliverable Workstreams**

The four core activity streams are:

Pressbook prototype with enhanced features

Integrate an open source repository that will support the open textbook platform and other content

Community building and knowledge mobilization

Learning module authoring and distribution prototyping

# **Key Deliverable Workstreams**

Project leadership and governance structure:

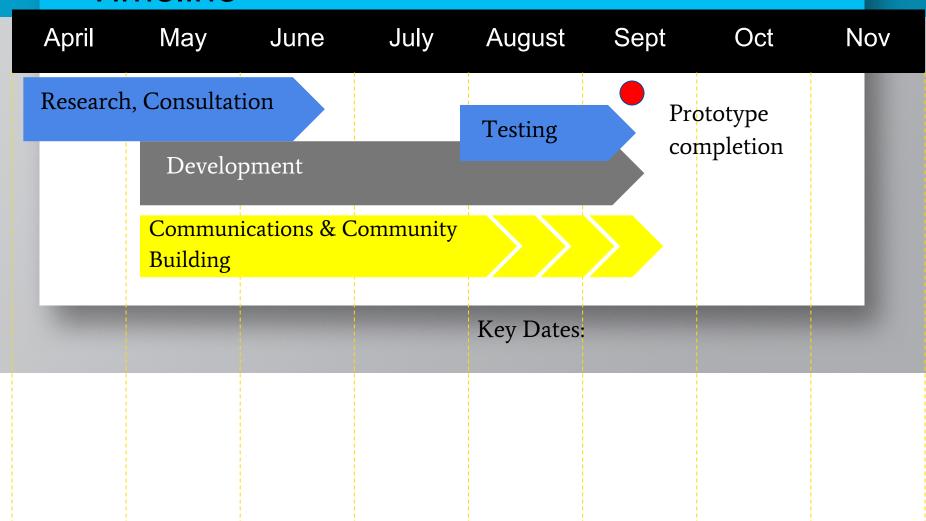
Ann Ludbrook, Copyright Librarian, Ryerson Communications & Community Building Chair

Hongbo He, Director, Applications Services, CCS, Ryerson Infrastructure Chair

**Hugh McGuire, Co-Founder, Rebus Pressbooks Chair** 

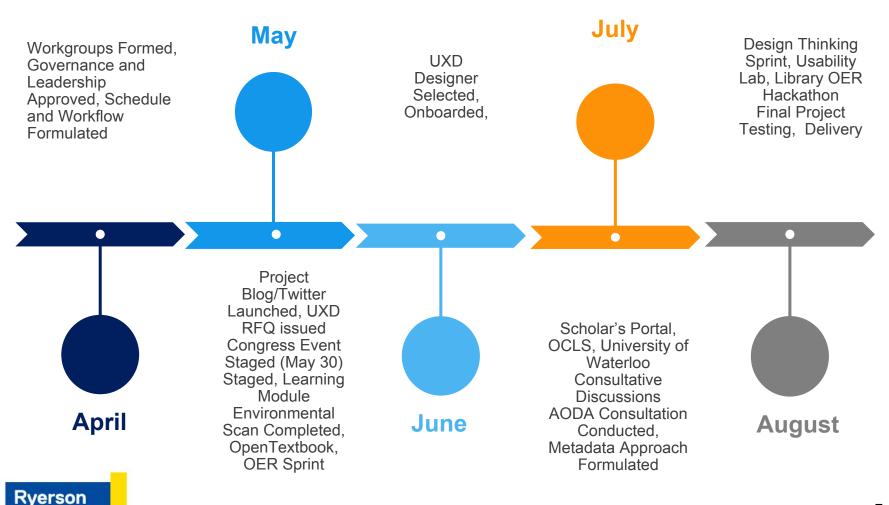
Naza Djafarova, Director, Digital Educational Strategies, Chang School Learning Module Authoring Chair Chairs Meeting

#### **Timeline**



## **Major Milestones**

University



# **Project in Numbers**

Meetings

30+

Meeting Hours 60+

Project Hours

1,375+

Team Members

30+

#### **Our Partners**













#### Design

The overall design will be focused on branding a Pressbooks Textbook Creation and Editing system available to eCampusOntario members, and improving the overall design of the system.

Specific tasks will include:

- Developing and implementing a customized/branded design for an eCampusOntario Open Textbook authoring system
- Improvements to the Open Textbook catalog design and implementation
- Improvements to standard Pressbooks web-based "book" interface
- Custom template (web, pdf, epub/mobi) for eCampusOntario



# Pressbooks - Sample screen (NOT final design)

Font pairing: Karla (Headings) + Lora (Body text) N.B. not final design, this is just to show the font pairing in context. *CCAMPUS*Ontario **ECAMPUS ONTARIO Educational Resources** SIGN IN SIGN UP



## Pressbooks - Sample screen (NOT final design)

#### **Book Description**

The ground beneath the book publishing industry dramatically shifted in 2007, the year the Kindle and the iPhone debuted. Widespread consumer demand for these and other devices has brought the pace of digital change in book publishing from "it might happen sometime" to "it's happening right now"—and it is happening faster than anyone predicted. Yet this is only a transitional phase. "Book: A Futurist's Manifesto" is your guide to what comes next, when all books are truly digital, connected and ubiquitous.

Through this collection of essays from thought leaders and practitioners, you'll become familiar with a wide range of developments occurring in the wake of this digital book shakeup:

- Reexamine your assumptions about the role of a book publisher, as we move from container to context
- · Understand the kinds of things we can start doing with digital books
- Look inside some of the publishing projects that are at the bleeding edge of this digital revolution
- Learn how some digital books can evolve moment to moment, based on reader feedback.

With "Book: A Futurist's Manifesto," we at O'Reilly Media are actively practicing what we preach.

Written and edited on PressBooks.com, a new web-based book-production system, this book also invites reader feedback throughout its development.

Sign up to our mailing list to hear when the complete book (parts 1, 2 and 3) is available.

#### **About the Editors**



This book was the result of collaboration among many people: writers, editors, developers, publishers, and others. Trying to wrangle this collection of talented people were Brian O'Leary and Hugh McGuire. Hugh McGuire is a technologist and writer, who experiments and writes about the changing world of publishing. He is the founder of LibriVox, a...

Read more →







#### Implement WordPress core REST API

- This project will expose any openly licensed Pressbooks book (on any network) to the core REST API, meaning (among other things) that all content (metadata, books, chapters, images etc) can be queried.
- The REST API would also allow other applications to build on Pressbooks, and collections of Pressbooks books.
- Status: V2 API complete.



#### Submission to DSPACE repository

- We are building a system to allow a Pressbooks book to be submitted to a DSPACE repository
- We are using the SWORD repository submission protocol
- Status: prototype repository submission is complete.



#### Cloning of books & collections

- Building on the API work, we are developing a system to easily "clone" a complete Pressbooks book
- This will allow any user to copy any openly licensed Pressbooks book (including all content, media etc) into a new version, to allow revision, remixing etc.
- This significantly improves on the export-import method currently used.

#### Status:

- V1 cloning is almost complete, allowing cloning within a Pressbooks network.
- V2 will include ability to clone from any Pressbooks network.
- V3 (probably out of scope) will include the ability to clone an entire collection



#### **AODA Compliance & Improvement**

This project will ensure AODA compliance (for users/authors, and readers) of the OpenTextbook Editing and Creation system. This work will be done in collaboration with OCADU's Inclusive Design Research Center (IDRC). The project will include:

- An audit of the system (for authors and readers)
- Remediation, where necessary, of any problems identified
- Integration of the OCADU / FLOE User Preference Toolbar by default



#### Follow-on Project Recommendations

This project will provide recommendations for next steps, and follow-on improvements, including, but not limited to, scoping and budgeting for:

- Development of proposals for mechanisms to offer any eCampusOntario member institution a dedicated, branded Pressbooks instance (co-branded with eCampusOntario)
- Improved support for annotation
- Integration with LTI/LMS systems
- Enabling single sign-on / user authentication
- Improvements in collaboration functions
- Improvements in EPUB3 import/export & round-tripping
- Publishing source code to open source software community
- eCampusOntario role in supporting OER development, adoption and support in Ontario



# A creative agency for meaningful digital projects.

Founded in 1998, we design the highest quality responsive websites and mobile apps.

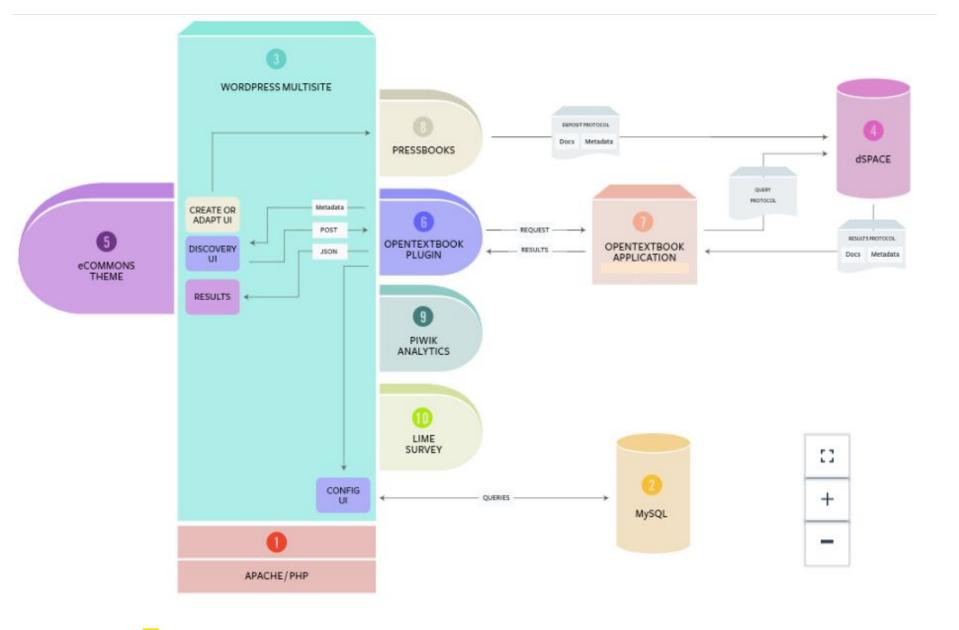
# Osheaga Stellar performance - onstage and online

# Infrastructure Workgroup Tasks

# Integrate an open source repository that will support the open textbook platform and other content

- Evaluate available open source repository systems and consult with BCcampus and other
   Canadian institutions regarding their OER repositories
- Install, configure and customize the functions of the selected repository system to meet the requirements of open textbooks and other types of OER content Develop a customized/branded design for an eCampusOntario open textbook library
- Investigate and integrate a Single Sign On (SSO) authentication system (e.g. CAS and Shibboleth)
   for the selected repository system
- Integrate the selected repository system with Pressbooks
- Extend repository to support possible identified requirements that are not supported out of box







#### **Recent Updates**

- Launch and ongoing testing of a DSpace instance,
   DSpace is the institutional, open repository platform for this project
- Active work on testing content uploads using sample open textbooks received from the Library
- Collaboration with the Library on metadata standards to inform DSpace schema approach
- Collaboration and code sprint with BCcampus OpenEd team to assist with a migration from their proprietary repository for DSpace to enable Ryerson team to gain hands-on experience, and gather schema best practices



## **DSpace**



# D S P A C E

- Largest community of users
- and developers worldwide
- Free open source software
- Completely customizable Used by educational, government, private and commercial institutions
- Can be installed out of the box
- Can manage and preserve all types of digital content



#### **BCcampus DSpace Migration**



"Our decision to move to DSpace is based on a number of factors, most importantly these include- heavily documented materials and resources, a robust community of developers; and the fact that it is in alignment with BCcampus's API requirements."

Learn more



#### A collaboration network.

#### **Agile Humanities Agency**

Make it agile, by design.





#### **Agile Networks**

Our agency forms "agile networks" among clients and rapidly assembled teams of programmers, designers, consultants, and project managers. These agile configurations change from job to job.



#### Collaborative Consultation

We have a successful track record in seeing projects through all stages of development – from preliminary consulting and grant applications to project management and sustainability.



#### Open-source Innovation

We specialize in open-source development, design themes and platforms, create custom modules, tools, and plugins, and recirculate our code through our public GitHub repository.

More Info

More Info

More Info

# **Communications Workgroup Tasks**

Engaging in ongoing promotion, information sharing and leadership activities across Ontario to support Open Education Resources (OER) skill-building and development

- Speaking at post-secondary events dedicated to open learning content development
- OER working teams and experts actively engaged in community- and foundation-building activities across the higher education community.
- Consult with representation from OCUL, OUCEL, OCLS, University of Waterloo, and Queen's University
- Consultation with upcoming OER and Library association meetings to include focus groups
- Establish opportunities to receive iterative feedback from representative community partners through existing grassroots communities.



#### **Recent Updates**

- Establishment of a Project Blog
- Congress 2017 OER Promotional/Community Event on May 30
- Creation of a Poster Presentation
- Launch of a Twitter channel
- Consultation session with Scholar's Portal and OCLS
- Creation of a event banner and supporting collateral
- Ongoing news and blog posts



## May 30 Congress OER Event

Ryerson University hosted an OER event at Canada's largest gathering of scholars, Congress 2017 hosting 9,000 academics, researchers and policy-makers.





#### Open Publishing Infrastructure Project at Ryerson

#### **About The Project**

This summer, eCampusOntario and Ryerson University will be spearheading an open publishing infrastructure project designed to enhance and expand eCampusOntario's planned Open Textbook Library.

This library, developed and shared by BCcampus, will provide access to over 180 high-quality, academically reviewed textbooks and open education resources (OER) for Ontario post-secondary students

#### Wendy Freeman: Project Lead

"Ryerson University is proud of its continued and ongoing work and collaboration with eCampusOntario. Ryerson is deeply committed to and passionate about the ability to provide world-class open educational materials and resources to Ontario post-secondary learners to lower the barriers to access and empower localization by instructors,"

Dr. Wendy Freeman, Director, Office of E-Learning, at Ryerson University.



#### Four Key Project Workstreams

A working Pressbook prototype with enhanced features

Integrate an open source repository that will support the open textbook platform and other content

Community building and knowledge mobilization

Learning module authoring and distribution prototyping

#### **Book Oven Partnership**

#### PB PRESSBOOKS

The creation of a technology platform based on Pressbooks, an industry-standard book writing solution.

Pressbooks is simple book production software which exports into all the file formats you need to publish your books:

- MOBI format (for Kindle ebooks)
- EPUB format (for all other ebookstores)
   designed PDF (the "interior book file" for print-on-demand)
- more exotic XML formats

  Pressbooks is used by authors, publishers
  and educational institutions around the
  world.



#### Ryerson Partnerships and Advisors

A cross-functional working group at Ryerson University will be driving a prototype infrastructure to support the Open Textbook Repository. The Ryerson team includes:

- E-Learning Office
- Ryerson University Library & Archives
- Chang School, Digital Education Strategies (DES)
- Computing and Communications Services (CCS)
- Learning and Teaching Office (LTO)

The Ryerson team is supported by several key advisory partners:

- Ontario Council of University Libraries (OCUL)
- Ontario College Library Service (OCLS)
- University of Waterloo
- Queen's University













#### **Community Building**

Ryerson University is engaging in ongoing promotion, information sharing and leadership activities across Ontario to support Open Education Resources (OER) community building, knowledge mobilization, skill-building and development.

This will also include the Sprint model, where project members and OER community members can gather together and work on open educational resource creation and training.

For more information about upcoming events visit: library.ryerson.ca/open/events/

#### **Project Planning**

Publications

linutes and bi-weekly

Monthly Web

Product Schedule

Google Drive

Final Reporting

Meeting & Events

Weekly Workgroup

Chair Committee (Bi-weekly)

Troubleshooting Sessions (as needed

Team Building (Launch, midpoint, Toolkit

Project Charters

E-mail Distribution Lists

Templates

https://library.ryerson.ca/open/

#### Project Blog and Twitter: Regular Updates







# **Ongoing Updates**

# INFRASTRUCTURE FOR OPEN PUBLISHING OF CURRICULUM RESOURCES PROJECT

About The Project ~

News v

Events

Partners v

ABOUT THE PROJECT

Edit

This summer, eCampusOntario and Ryerson University will be spearheading an open publishing infrastructure project designed to enhance and expand eCampusOntario's planned Open Textbook Library. This library, developed and shared by BCcampus, will provide access to over 180 high-quality, academically reviewed textbooks and open education resources (OER) for Ontario post-secondary students.

"Ryerson University is proud of its continued and ongoing work and collaboration with eCampusOntario. Ryerson is deeply committed to and passionate about the ability to provide world-class open educational materials and resources to Ontario post-secondary learners to lower the barriers to access and empower localization by instructors," said Dr. Wendy Freeman, director, Office of E-Learning, at Ryerson University.

library.ryerson.ca/open/



# **Learning Modules Workgroup Tasks**

Complete an environmental scan of existing open source learning module authoring systems

Consult with learning design and faculty support communities in Ontario (OUCEL and College Technology Support)

Draft specifications for a learning module authoring and repository system to include:

- Exploration of common format for distribution. Module distribution outline and requirements
- Integration and introduction of ID workflow within authoring tool
- Making common learning objects available within the authoring process
- Design and create conceptual prototype



#### **Recent Updates**

- Research into different systems as part of an extensive environmental scan
- Discussions of SMART workflow functionality, which would support an instructional design (ID) workflow
- Survey of multiple methodologies to support course authoring
- Reviews of standards and innovative ways of content digestion and distribution
- Outreach to OER thought leaders
- Consultation with University of Waterloo



# Thank you



# **Project Planning**

Launched

**Publications** 

Meetings & Events

**Toolkit** 

Minutes and bi-weekly updates

Bi-Weekly Web Posts

Product Schedule

**Google Drive** 

Weekly Workgroup

Team Building (Launch, midpoint, close)

Chair Committee (Bi-weekly)

Trouble-shooting Sessions (as needed) **Project Charters** 

E-mail Distribution Lists

Meeting Support Templates

Project Briefs & FAQs

Final Reporting

Key Decision Log Schedules & Activities Log

Technical Documentation

Lessons Learned

Ryerson University

