Open Content Deserves Open Platforms
Principles & Practices for a Publicly-Owned Publishing Infrastructure

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Slides on Twitter: @SteelWagstaff. Slide template by SlidesCarnival (CC-BY licensed).
We are meeting on the unceded, ancestral, and occupied lands of the Skwxwú7mesh (Squamish), səl̓ilwətaʔɬ (Tsleil-Watuth), and xʷməθkʷəy̓əm (Musqueam) Nations of the Coast Salish peoples.
What are ‘platforms’ & why should we care?
Exploring the state of things in 2019
Major educational publishers have abandoned the traditional ‘textbook’. We live in an era of courseware.
Growth in the market of digital solutions ... enables us to capture a greater share of the total market, given the embedded and gradeable/assessable orientation of our digital products as well as lack of alternative substitutes. ... Higher education core digital gross sales have grown at ~11% CAGR over the last three years. ... Our revenues are now predominantly derived from our courseware technology. ... Our sales, marketing & services teams have shifted over the last few years from a textbook to a software sales & support model.

— Cengage’s Annual Report to Shareholders (2018)
OER Delivery = Content + Platform

**CONTENT**
The actual book, activity, or object that learners use

**Examples:** everything in the Open Textbook Library, Merlot, OER Commons, & LibreTexts libraries; OpenStax books.

Content can be copyrighted, permissively licensed, or in the public domain. Openly licensed textual content is increasingly common, but requires a platform to edit, remix, integrate w/ LMS.

**PLATFORM**
Where content is authored, edited, assembled, & distributed.

**Examples:** Mindtap; Connect; Revel; Top Hat Textbook; Open Author; Waymaker; OpenStax CNX [retired]; Pressbooks

Platforms can be proprietary or open-source. Can be free/$ to use (for creators); free/$ to implement (for instructors or institutions); and free/$ to access (for learners).
Courseware is a mixture of content and platform, each of which can be licensed separately.

Content is increasingly OER, but most platforms remain proprietary.
The battle to open source these platforms will be a very different battle than the battle over content licensing. While the cost of creating, maintaining, and hosting software has dropped significantly in the last decade, creating a courseware platform is still orders of magnitude more expensive and orders of magnitude more complex than creating an open textbook.

— David Wiley, "How do we talk about ‘open’ in the context of courseware," February 21, 2018
What do we want from our platforms?

Why it matters who owns the pipes, not just the flow
Our Platform Principles

1. **Non-proprietary:**
   Is open-source & uses open-source components

2. **Lets users come & go freely:**
   Avoids vendor lock-in by allowing easy import & export of content

3. **Can be made personal/local:**
   Supports open ‘permissions’ by letting users quickly clone, revise, & remix content

4. **Plays well with others:**
   Uses broadly accepted standards

5. **Helps learners achieve their goals:**
   Includes interactive components where feedback is designed for learners first

6. **Is broadly inclusive & participatory:**
   Invites and enables public (& private) standards-based web annotation

7. **Skeptical of surveillance:**
   Only permits ethical, learner-centered analytics and reporting.
Non-proprietary

Is open-source & uses open-source components
Is Open Source

Welcome

Welcome to the home of the Pressbooks Open Source project.

Pressbooks is a book content management system that exports in multiple formats: ebooks, webbooks, print-ready PDF, and various XML flavours. The system is built on top of WordPress Multisite, and makes significant changes to the admin interface, web presentation layer and export routines of a vanilla WordPress install.

Pressbooks is used by educational institutions, academic presses, small publishers, as well as individual authors. There are three ways to use it:

At left: Pressbooks.org
At right: Pressbooks on GitHub
Let's users come & go freely

Avoids vendor lock-in by allowing easy import & export of content
Importing Content

If you find openly licensed content that isn’t already in Pressbooks, you can import it by uploading the file & following the instructions. We’ve added shortcode support to make importing from Word documents even easier.
**Export**

You can select multiple formats below. Pressbooks keeps the last 3 exports of each file format. You can pin specific exports.

### Export Options

**Supported formats:**
- PDF (for print)
- PDF (for digital distribution)
- EPUB (for Nook, Apple Books, Kobo etc.)
- MOBI (for Kindle)

**Other formats:**
- EPUB 3
- XHTML
- HTMLBook
- OpenDocument
- Pressbooks XML
- WordPress XML
- Common Cartridge 1.3

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**Latest Exports**

<table>
<thead>
<tr>
<th>File</th>
<th>Format</th>
<th>Size</th>
<th>Pin</th>
<th>Date Exported</th>
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</thead>
</table>

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**At left:** Export page. Pressbooks makes it easy to export your content to nearly a dozen different formats.
Can be made personal/local

Supports open ‘permissions’ by letting users quickly clone, revise, & remix content
## Cloning Content

Any public, openly licensed book can be quickly cloned from one Pressbooks network to another.

### Clone

Enter the URL to a Pressbooks book to clone it.

<table>
<thead>
<tr>
<th>Source Book URL</th>
<th><a href="https://wisc.pb.unizin.org/portuguese/">https://wisc.pb.unizin.org/portuguese/</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Book URL</td>
<td>integrations.pressbooks.network/</td>
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<tr>
<td></td>
<td>portuguese</td>
</tr>
<tr>
<td>Target Book Title</td>
<td>Beginning Brazilian Portuguese</td>
</tr>
</tbody>
</table>

*Optional. If you leave this blank, the title of the source book will be used.*

03:04 Cloning parts and chapters (30 of 76)
This book is a cloned version of A Guide to Making Open Textbooks with Students by, published using Pressbooks by The Rebus Community for Open Textbook Creation under a CC BY (Attribution) license. It may differ from the original.
Note: The comparison below is between this text and the current version of the text from which it was adapted.

14 additions / 15 deletions

Anna Andrzejewski, an art history professor and director of graduate studies at the University of Wisconsin-Madison, was looking for a hands-on learning project for her Frank Lloyd Wright art history course.

The class was an upper-division, research course designed for art history majors or grad students, but also open to other disciplines. Andrzejewski had arranged access to seven historic local Frank Lloyd Wright houses for the course.

Known for hands-on learning projects that used student research to get ideas out into the broader community, she had had her students create walking tour booklets and websites documenting architectural landmarks in previous courses, but for this class she wanted to do something different.

Steel Wagstaff, an instructional technology consultant at the university, approached her with the idea of having the students create a book using Pressbooks, an online book-formatting software often used for open textbook projects.

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Plays well with others

Uses broadly accepted standards
Uses Broadly Accepted Standards

**Supported Web Standards**
- HTML5 + CSS
- Schema.org [microdata]

**Supported Export Formats**
- EPUB
- MOBI
- PDF
- HTMLBook
- XHTML & XML
- ODT

**Accessibility Standards**
- WCAG 2.0 A & AA

**Supported IMS Standards**
- LTI 1.1
- Thin Common Cartridge

**Supported SSO Protocols**
- CAS & SAML2

**Standards We’re Exploring**
- MARC record export
- Caliper Analytics 1.1
Pressbooks LTI Integration

**AT RIGHT:** Users can produce Thin Common Cartridge exports with LTI links and bring books directly into the LMS.

Demo video: https://www.youtube.com/watch?v=7tqL-9z_fFA.
Helps learners achieve their goals

Includes interactive components where feedback is designed for learners first
Embedded Interactive Elements

AT RIGHT: Authors can add interactive components (like YouTube/Vimeo videos, PHET simulations, open assessments, TimeLine JS, and more) just by pasting the URL into the editor.
In 2018 I attended the inaugural Women of IU conference. I believe that women have a lot to bring to IT and I'm strongly invested in lifting others up.

The bulletin board above, which lives on my desk, tells the story of my career. I’ve gravitated toward learning technologies and diversity initiatives, I have interests in the arts, humanities, and sciences, and I like to have fun. I pursue work that I will enjoy, because when I enjoy my work, I will go above and beyond to do it well.

H5P activities in Pressbooks. **Left:** An image hotspot interactive built by Emily Hunt at Indiana University. **Right:** A flashcard activity built by Naomi Salmon at UW-Madison.
Is inclusive & participatory

Invites and enables public (& private) standards-based web annotation
Open Web Annotation

The Hypothesis plugin adds flexible annotation layers which invite public annotation, ‘publisher’ commentary, class discussion or editorial review in private groups, and/or highlighting and personal note taking (marginalia).

**AT RIGHT:** A Pressbooks chapter with public annotation layer embedded in Canvas.
Web annotation can include more than text on text.
Publication history:


Black Hawk held: In reason land cannot be sold, only things to be carried away, and I am old.

Young Lincoln’s general moved, pawpaw in bloom, and to this day, Black Hawk, reason his small room.

Post poem quiz:

Who was Lincoln’s general?

- [ ] Jacob Early
- [ ] Samuel Whitman
- [ ] Henry Atkinson
- [ ] Isaiah Stillman

Steel & Jeremy Dean’s recent OpenEd week presentation includes lots more ideas for using Pressbooks + Hypothesis for teaching & learning.
Skeptical of surveillance

Only permits ethical, learner-centered analytics and reporting
Learner-Centered Analytics

Pressbooks does not track or store any information about learner activity in our texts. See our [privacy policy](#).

We have begun to talk with existing clients and others in the open education community about what ethical, learner-centered analytics might look like.

**Two possibilities we are considering:**

1. Adding outcomes reporting to our LTI provider plugin
2. Instrumenting Pressbooks to transmit learning analytics statements directly to an institution-owned Learning Record Store.
eCampusOntario
Investing in infrastructure & community
What is “eCampusOntario?”

1 Provincial Government
24 Colleges
21 Universities
1. **Lead** through open and collaborative practices.

2. **Build capacity** through shared & collaborative services.

3. **Inspire innovation** through investment in research and development.
Our Infrastructure

Financial investment in systems

- Repository // DSpace
- Search // WordPress
- Authoring // Pressbooks
Pressbooks working with Ryerson University on eCampusOntario grant: “Open Publishing Infrastructure”

May 19, 2017 by Hugh McGuire

We are very very excited to announce that we’re working with eCampusOntario and Ryerson University to improve Pressbooks as an Open Textbook authoring tool, under the just-announced eCampusOntario project: “Open Publishing Infrastructure for Ontario Post-Secondary Educators, Learners.”

Most of the development work we undertake under this grant will be released as open source improvements to the Pressbooks GPL codebase — so anyone using Pressbooks will benefit.

Pressbooks as we’ve dreamed since, well, 2010

This project is going to allow us to develop some of the most exciting capabilities of Pressbooks, something we have been dreaming of since, well, since I started working on Pressbooks way back in 2011.
Pressbooks Development Round 1

- Enhanced themes
- H5P integration (and other embedded media)
- Cloning support
- Support for modular content
- Version tracking

Meeting Ontario’s needs.
Improving Pressbooks for all users.
Pressbooks Development Round 2

- Accessibility audit & VPAT
- Fully French authoring interface
- Book and network level analytics

Meeting Ontario’s needs.
Improving Pressbooks for all users.
Can **tools** spark a *cultural shift*?
Investment: Human

- New Technologies Team
  - Chief Technology Officer
  - Digital Access & OER Lead
  - Senior Systems Administrator
  - Junior Front-End Developer

- Community engagement opportunities

Investing in people is investing in sustainability.
What is infrastructure?
Layered Infrastructure

Financial

Technical

Human

Layers by cathy moser from the Noun Project
Open at Scale

A targeted approach to OER development which focuses on a single subject vertical, identifies gaps in the landscape, leverages existing assets and builds out the rest.

The Open at Scale approach originated in Ontario through conversations with passionate practitioners and leaders that saw an opportunity to pursue open education at a systemic level.

Open at Scale projects are designed by and for Ontario institutions and supported by eCampusOntario.

https://www.openatscale.ca/
Human Gestures

- Handwritten notes
- Public expressions of gratitude
- Open invitations
- Transparency and regular communication
Since the Open Library Launch

+ 42% increase in Pressbooks users
+ $858,123 reported student savings
+ 8,712 new learners impacted by OER
SUNY OER Services

Helping teachers find & adopt OER while building a sustainable service model
SUNY OER Services

A shared services organization for SUNY institutions looking to build, support, and expand open education programs and practices.

We help lower the cost of higher education for students and empower faculty to use course materials most suited to their needs.
Focus Areas

Campus Support
- Workshops
- Consultations / mentoring
- Course catalog
- Technical assistance
- Online professional development
- Create & maintain resource libraries
- Peer mentoring program
- Print pathways
- Creation of new OER

Strategic Outreach
- Focus campuses
- Priority disciplines
- OER degree programs
- Regional strategies
- Campus funding

Communication
- SUNY stakeholders
- OER community
- Member campuses
- Internal

Infrastructure
- Helpdesk
- Support model
- Partners & vendors
- Integrations with other SUNY initiatives
- Press partnership
- OER Advisory Council
Platform to deliver, edit & create OER

Student-centered course design

Homework management

LMS integration
Future areas: policies ¯\_(ツ)_/¯, community-led maintenance & development
open

swap

@useOASIS
Offline access

- Print through bookstore
- Printable files
Publishing Pathways

1. Platform for sharing/distribution
2. DIWH
3. Funded projects
Tensions & balance
Questions?

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