

Adding Interactivity to Web Annotation: *An Educational Use Case*

Steel Wagstaff, Instructional Technology Consultant, UW-Madison



OUTLINE

Slides posted to Twitter this morning: [@SteelWagstaff](#)

1. Open Textbooks @ UW-Madison
 2. What is Pressbooks?
 3. How Systems Connect
 4. Using Learning Analytics
 5. Future Goals
-

1. Open Textbooks @ UW-Madison

Open Educational Resources (OERs) are teaching, learning, and research resources released under an open license that permits their free use and repurposing by others.

OERs can be textbooks, full courses, lesson plans, videos, tests ... or any other material ... that supports access to knowledge.

Source: [SPARC](#)

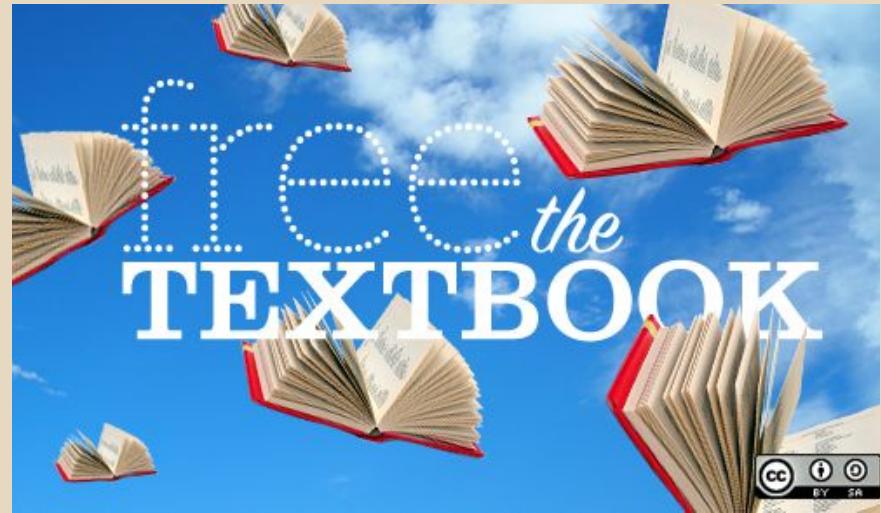
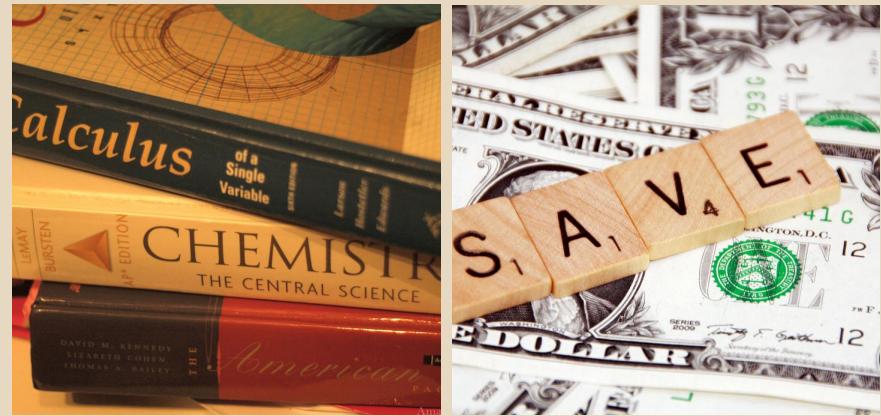
The 5Rs of Open Content

– from [David Wiley](#)

- 1.** Retain
 - 2.** Reuse
 - 3.** Revise
 - 4.** Remix
 - 5.** Redistribute
-

Why Prefer Open?

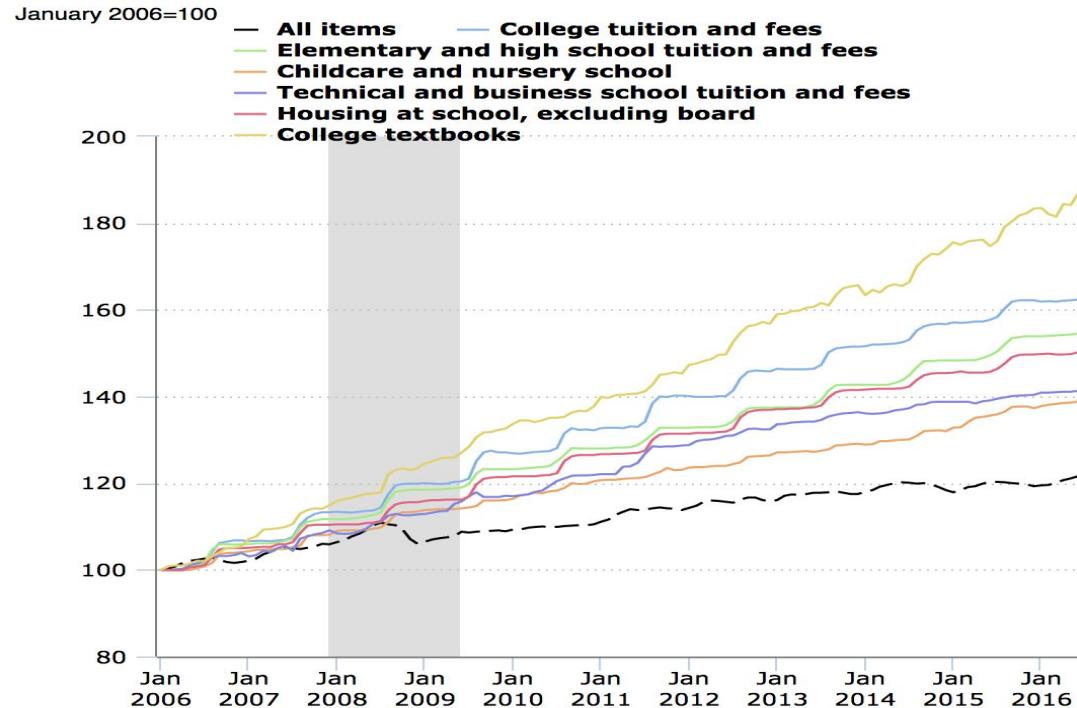
1. Impact on learning. Large studies consistently find learning outcomes stay the same or increase.
2. Educators can curate, tailor, and share OERs to suit their curriculum, and share their innovations freely.
3. Students have 'Day 1 through Day ∞ ' access and can customize their learning to better meet their needs.
4. Students save \$ on textbooks.



National & Local Context

Textbook Price Trends

Consumer price indexes for tuition and school-related items, not seasonally adjusted, January 2006–July 2016



Click legend items to change data display. Hover over chart to view data.

Shaded area represents recession, as determined by the National Bureau of Economic Research.

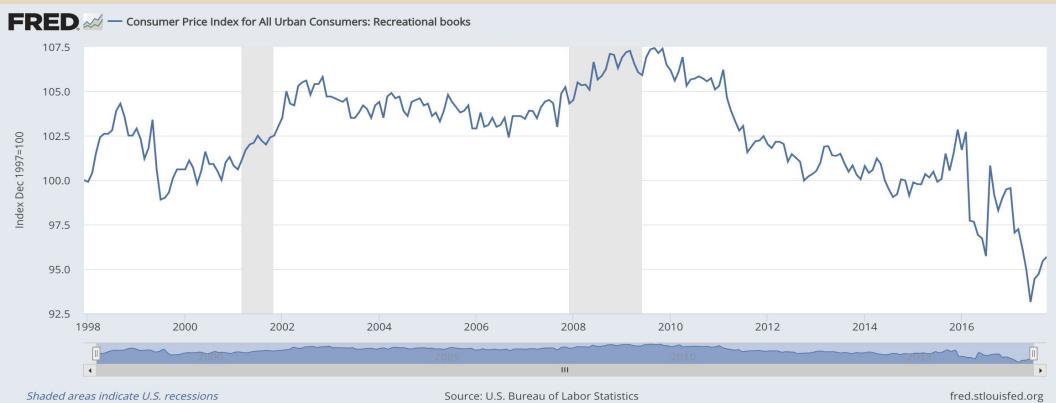
Source: U.S. Bureau of Labor Statistics.

Textbook vs Recreational Book Trends



Textbooks are now ~300% more expensive than they were in 1997; recreational books are 4% less expensive.

At left: consumer price index trend lines from 1997-present for 'educational books & supplies' [[top](#)] and 'recreational books' [[bottom](#)]. Charts supplied by the Federal Reserve Bank of St. Louis.



#TextbookBroke

The College Board advises students to budget \$1,298 / yr for books & materials.

However, the National Association of College Stores (NACS) says the average college student spends around \$579 a year on textbooks. Similarly, Michael Feldstein estimates that students spend around \$600 / year on textbooks.

How to explain the difference?

- Students don't buy required textbooks (perhaps as many as $\frac{2}{3}$)
- Students don't buy the current edition
- Students take fewer courses (perhaps as many as $\frac{1}{2}$ of all students)

UW-Madison Facts & Figures

Total # of Students	43,000
# of undergraduates	29,600
Tuition & fees	\$10,533 [resident] \$34,783 [non-resident]
Annual Cost of Attendance	\$25,699 [resident] \$49,949 [non-resident]
Typical Debt After Graduation	\$22,250



Source:

<https://collegescorecard.ed.gov/school/?240444-University-of-Wisconsin-Madison>

UW-Madison campus, Fall 2013.
Photo by Jeff Miller/UW-Madison.

OER MISSION @ UW-Madison

—from *Educational Innovation* [website](#)

MISSION

Support and encourage instructors to create, revise, and adopt OER course materials that increase student learning and student access to high quality, innovative learning materials at lower cost.

Campus-wide eText Creation Pilot

Authors wanted to include “advanced interactivity and multimedia integration. ... [While technologists] assumed that there were authoring or editing platforms that would make this possible ... [we] soon realized the tools we had simply would not meet their expectations ... much of this type of software remains proprietary or requires advanced programming skills.”

-- DoIT Academic Technology [report](#) on the concluded pilot [June 2015]

Authoring Tool Wishlist

1. Easy to use
2. Collaborative, with version control
3. Standards-based, device & platform agnostic, compliant with Federal accessibility law and local policies
4. Permits open licensing, exports to multiple formats, gives readers durable access
5. Can include multimedia, annotation, & interactive learning activities [e.g. ?s with personalized feedback]
6. Works alone or inside a LMS. When used with LMS, offers assessment and analytic capabilities.

2. What is Pressbooks?

Pressbooks is “an online book publishing platform that makes it easy to generate clean, well-formatted books in multiple outputs. PressBooks is built on WordPress and is open source.”



– *Hugh McGuire, Pressbooks founder*

Significant Features

- Each PB instance is a centrally-managed network (built on WordPress multisite) which can contain hundreds of separate “books” [two examples at right]. Our instance lives at <https://wisc.pb.unizin.org>
- Each “book” has a unique web address. Books on the same network can have different structures, themes/appearances, copyright licenses, & permissions.

University of Wisconsin Pressbooks



Teaching with Technology

L&S Learning Support Services

This book offers an open guide to online discussions, media arts production, blended learning, and active learning from L&S Learning Su...

[Read More](#)

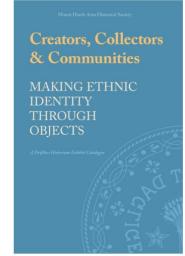


Português para principiantes

Department of Spanish & Portuguese, UW-Madison

Português para principiantes is a time-tested text which can be used in conjunction with a variety of approaches to the teaching o...

[Read More](#)



Creators, Collectors & Communities

This catalogue was built to accompany "Creators, Collectors and Communities: Making Ethnic Identity through Objects," the inaugural exhibit ...

[Read More](#)

PRESSBOOKS

Co-founded by open-education visionary Dr. David Wiley and education technology strategist Kim Thanos, [Lumen Learning](#) is dedicated to facilitating broad, successful adoption of OER.

SUBJECT

- Art
- Biology
- Business
- Chemistry
- Communication
- Earth Science
- English
- Faculty Development
- Geography
- History
- Mathematics
- Music
- Physical Education
- Political Science
- Psychology
- Sociology
- Technology
- Transitional Studies

Catalog



Adopting Open Educational Resources in the Classroom
Tidewater Community College Z Course



American Government



American Literature I
SBCTC & Lumen Learning



American Literature II
J. Sargeant Reynolds Community College & Lumen Learning

UW-Madison
Pressbooks

Lumen Learning
Pressbooks

What is a Pressbook?

All published books exist as standalone web texts featuring landing page with:

1. descriptive metadata
2. cover image
3. licensing information
4. download various export formats
5. table of contents

Books can contain text, media, interactive elements, annotation. Learn more: [1](#), [2](#), [3](#), [4](#)

Português para principiantes

1st digital edition

Department of Spanish & Portuguese, UW-Madison and Department of Spanish & Portuguese, UW-Madison

1

Português para principiantes is a time-tested text which can be used in conjunction with a variety of approaches to the teaching of beginning Portuguese. This media-rich text is designed to provide learners with a solid grammatical basis for using Brazilian Portuguese as well as regular opportunities to practice and improve their ability to read, speak, and understand the Portuguese language as it is used in contemporary Brazil.

2

3

Creative Commons Attribution NonCommercial ShareAlike

4

5

READ BOOK

Download this book

EPUB3

EPUB

Digital PDF



CONTENTS

Front Matter

5

Lição 1	Lição 20
Diálogo 1	Diálogo 20
Lição 2	Lição 21

Portuguese language textbook published at UW-Madison

Interactive Content

via H5P plugin

The concert is at 8 PM.

SER

1

ESTAR



[Download](#) [Embed](#)

Fill in the blanks with the correct form of SER or ESTAR:

1. O Gilberto **é** brasileiro. Ele **está** aqui para aprender inglês.
2. O jogo **é** hoje. Vocês **está** **estão** com vontade de ir?
3. Lisboa **somos** é em Portugal. Meu irmão **esta** **está** de férias em Lisboa.
4. Nós **semee** **somos** de São Paulo. De onde vocês **é** **são**?
5. A moça não **é** **está** na sala de aula hoje; ela **está** doente.

3

You got 4 of 10 blanks correct.

Retry

[Download](#) [Embed](#)

Five examples of H5P activities in Pressbooks:

1. True/False type question set,
2. Find multiple hotspots,
3. Fill in the blank activity,
4. Drag & Drop,
5. Interactive video.

Find all the vegetables in this picture

2



No sorry, the tomato is actually a fruit!

[Download](#) [Embed](#)

Drag the numbers to their written form.

1. nove
2. sete
3. quatro
4. três
5. seis
6. um
7. oito
8. dois
9. dez
10. cinco

[4](#) [9](#) [3](#) [7](#) [6](#) [1](#) [2](#) [5](#)

Check

[Download](#) [Embed](#)

Drag and drop

& drop the berries used in this recipe on the picture!



Drag & drop quiz

Show score

0:45 / 1:05

Collaborative Annotation

via Hypothesis plugin

Publication history:

This short poem was probably written in 1941 and was included in Niedecker's first book, *New Goose*, published in 1946 by the Press of James A. Decker. One of Niedecker's favorite poems, she also included it her second book, *My Friend Tree* published in 1961 by The Wild Hawthorn Press in Edinburgh, Scotland as well as both of the collected editions of her work that appeared during her lifetime: *T&G: The Collected Poems, 1936-1966*, published in 1969 by Jonathan Williams' The Jargon Society, and *My Life By Water: Collected Poems 1936-1968*, published by Stuart and Deidre Montgomery's Fulcrum Press in London in 1970.

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 has small room.

Post poem quiz:

Who was Lincoln's general?

- Jacob Early
- Samuel Whiteside
- Henry Atkinson
- Isaiah Stillman

Check

1



Public >

also the name of a small community in Northern Illinois that was incidental to the Black Hawk War. The Illinois State Historical Society has erected a historical marker in Paw Paw:

HOMES OF CHIEF WAUBONSIE AND MAEDLINE OGEE
DEEP WITHIN THE PAWPAW GROVE, OR AS-SIM-IN-EH-KON, POTAWATOMI CHIEF WAUBONSIE AND HIS TRIBE MADE THEIR HOME 1824-1836. AT THE TREATY OF PRAIRIE DU CHEN 1829, MAEDLINE OGEE, POTAWATOMI WIFE OF JOSEPH OGEE, WAS GRANTED TWO SECTIONS OF LAND IN THE GROVE. POTAWATOMI, CHIPPEWA, OTTAWA CHIEFS WAUBONSIE, SHABBONA, AND CALICAHASHI (HILLY, CALDORNA) LIVED THERE.

14 More

Hide replies (3)

steelwagstaff Apr 14

Wow, I never knew this. I grew up eating Paw paw. Here's a video I found explaining different ways to cut and eat them!

How to Cut and Serve Pawpaw ...

steelwagstaff Apr 14

I also found this great website with all kinds of recipes and advice for eating/cooking with paw paws: [http://www.serious eats.com/2014/09/what-are-pawpaws-wild-fruit-mid-west-how-to-prep-and-eat-pawpaws.html](http://www.seriouseats.com/2014/09/what-are-pawpaws-wild-fruit-mid-west-how-to-prep-and-eat-pawpaws.html)

steelwagstaff Apr 14

Niedecker reading her "foreclosure":

▶ 0:00 / 0:21

5 6

At left: Pressbooks page with H5P activity and rich annotations

- 1. Multi-part quiz [H5P]**
- 2. Image in annotation layer**
- 3. Video in annotation**
- 4. Annotation with external link**
- 5. Embedded audio in annotation**
- 6. Edit, delete, reply, share buttons for each annotation**

Public Domain Anthologies / Course Readers

The chair of our political science department is now publishing anthologies for undergrad & grad seminars made with excerpts from primary texts in the public domain.

- Students annotate, discuss, and develop a shared understanding of assigned texts.
- **AT RIGHT:** Images from *Introduction to Political Thought* and *Political Theory of the American Revolution*, two readers produced in the last year.

Political Science 601: Political Theory of the American Revolution

Charles I, "His Majesty's Answer ..."

His Majesties Answer to the Nineteen Propositions of Both Houses of Parliament.

Charles I

SOURCE

Before we shall give you Our Answer to your Petition and Propositions, we shall tell you, That we are now clearly satisfied, why the Method, which we traced out to you by Our Message of the twentieth of January, [8](#) and have since so often pressed upon you, as the proper way to compose the Distractions of this Kingdom, and render it truly happy, hath heretofore declined, and is at length thought fit to be lookt upon. We now see plainly (and desire that you, and all other Our good Subjects, should do so too) that the Caballists of this Businesse, have, with great prudence, reserved themselves until due preparations should be made for their designe.

If they had unseasonably vented such Propositions, as the wisdom and modesty of your Predecessors never thought fit to offer to any of Our Progenitors, nor We in honour or regard to Our Regall Authoritie (which God hath intrusted Us with for the good of Our people) could receive without just indignation, (and such many of your present Propositions are) their hopes would soon have been blasted, and those persons to whom Offices, Honours, Power and Commands were designed, by such ill-timing of their Businesse, would have failed of their expectation, not without a brand upon the attempt. Therefore, before any of this nature should appear, they have (certainly with great wisdom in the conduct of it) thought fit to remove a troublesome rub in their way, the Law. To this end (that they might undermine the very foundations of it) a new Power hath been assumed to interpret and declare Laws without Us, by extemporary Votes, without any case judicially before either house, (which is in effect the same thing as to make Laws without Us) Orders and Ordinances made only by both houses (tending to a pure Arbitrary power) were pressed upon the people, as Laws, and their obedience required to them.

Their next step was to erect an upstart Authority without Us (in whom, and only in whom, the Laws of this Realm have placed that power) to command the Militia; (very considerable to this their designe). In further Order to it, they have wrested from Us Our Magazine and Town of Hull, and bestrid Sir John Hotham in his boldfaced Treason. [9](#)They have prepared and directed to the people, unprecedent Invectives against Our Government, thereby (as much as lay in their power) to weaken Our just Authoritie and due esteem amongst them. They have as injuri-

Annotations 10 Page Notes

kim658 Jan 23

I find this passage immensely interesting due to the King's clear disdain for the violation of the "Law". His view of what he holds dear would call representative democracy. He views the passage of laws by the two houses of parliament as the passage of Laws without Us. Who is the "Us" he is referring to? [... More](#)

Show replies (1)

NoahStengl Jan 18

All which are curiously twisted and mixed with those other things of their main designe of ambition and private Inte... [More](#)

I find the rhetoric of these first paragraphs intriguing (although, admittedly, inscrutable at times). Charles I begins by promising an answer to the propositions, and notes that by doing so he is more generous than his predecessors would have been. To reinforce his words, he adds an aside and asserts that their "hopes would soon have been blasted" in another sentence (Second Paragraph). From there, Charles' venom increases until, in the highlighted line, he accuses the authors of deception and greed. Clearly, this document was intended for a public audience, and Charles meant to win people over by disparaging his opposition.

ikohls Jan 21

(as dangerous to the Laws of this Kingdom, the Peace of the same, and Liberties of all Our good Subjects, as to Ourselves and Our just Privileges)

I found this part of the paragraph to be of particular interest. King Charles I lists some of what he views as undesirable consequences of parliament's 19 propositions. However, much of what parliament was doing with these propositions was lessening the king's power. For example, major officers and counselors would have to be approved by parliament. King Charles I tries to make it appear as though he was primarily motivated by protecting the people and their interests. However, I would say he was likely strongly motivated by his own desire for power as well.

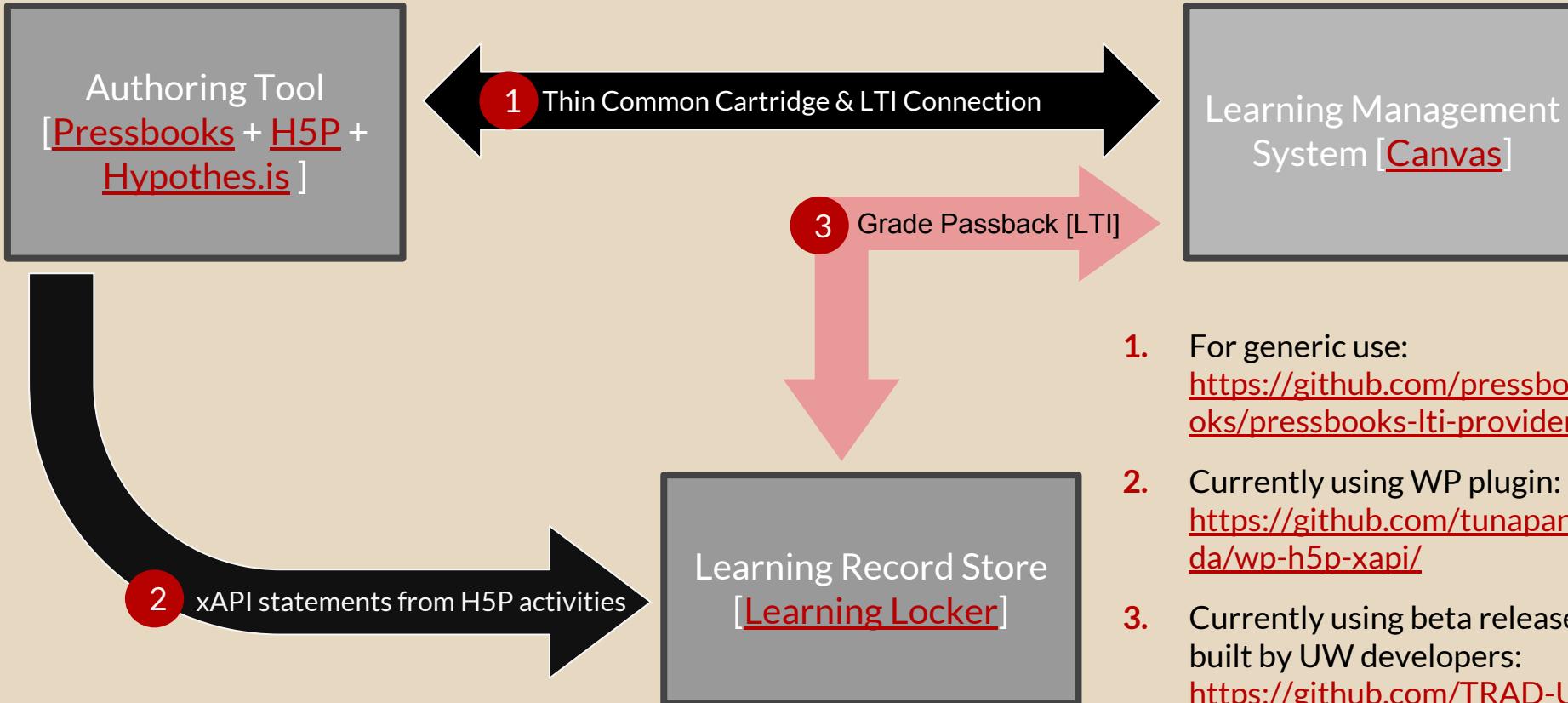
ikohls Jan 21

unless they be approved by both Houses of Parliament

I found it intriguing that Parliament included a proposition that they needed to consent to those who become major officers and counselors; this proposition decreases the power of the King. This reminds us of how the Senate is needed to confirm nominations to the Cabinet and Supreme Court, decreasing the power of the President.

3. How Systems Connect

How our systems connect



Import into Canvas

TOP RIGHT: We can export books as [Thin Common Cartridges](#) and import them into Canvas via a simple 2-step process. This creates discrete links in our LMS (Canvas) for each of the book's chapters.

The screenshot shows a Canvas course page with two main sections: "Media Arts Production" and "Blended Learning".

Media Arts Production: This section lists ten chapters from a book, each with a preview icon, title, and settings menu. The chapters are:

- Overview of Media Arts Production
- The Nature of Multimedia
- Design Guide
- Project #1: A Single Image
- Media Arts and the University Lecture
- Video Editing Activities
- Mobile Media Production
- Mobile Production and the Step-by-Step Video
- Intermediate Editing
- Final Project: The Small Mundane Presentation

Blended Learning: This section contains one chapter titled "Introduction to Blended Learning".

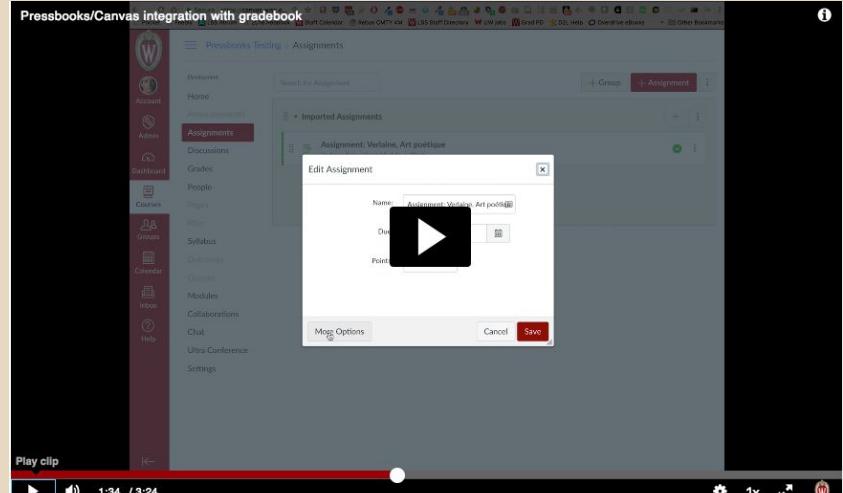
Sidebar: On the left, there is a sidebar with various navigation links: Discussions, Grades, People, Pages, Files, Syllabus, Outcomes, Quizzes, **Modules** (which is currently selected), Collaborations, Chat, Ultra Conference, and Settings.

Content Area: The main content area has a heading "STRATEGIES FOR CRAFTING A MODULE BLUEPRINT" and a sub-section "CHAPTER OBJECTIVES" with a bulleted list of instructional strategies. Below this is a descriptive paragraph about the chapter's purpose.

Import into Canvas

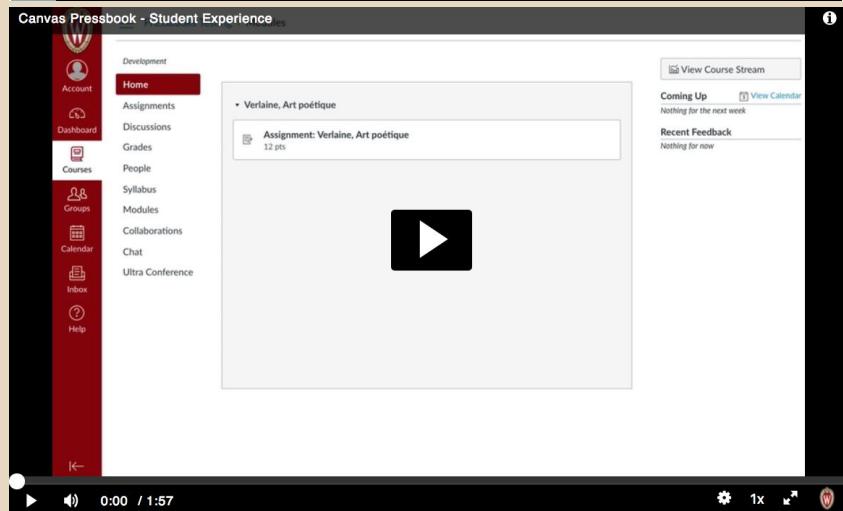
INSTRUCTOR'S PERSPECTIVE:

https://mediaspace.wisc.edu/media/Pressbooks-Canvas+connection/1_7vqcblou



STUDENT'S PERSPECTIVE:

https://mediaspace.wisc.edu/media/Canvas+Pressbook+-+Student+Experience/1_zgf2t4gd



Sample Interactive Reading Activity

The screenshot shows a Canvas course page for the Fall 2017-2018 term. The left sidebar includes links for Account, Admin, Dashboard, Courses, Groups, Calendar, Inbox, Announcements, Assignments (which is selected), and Help. The main content area displays a poem titled "Quand vous serez bien vieille..." (Sonnets pour Hélène). The poem text is annotated with yellow highlights and blue links. Annotations include:

- Yellow highlight on "servante" with a tooltip (circled 1).
- Yellow highlight on "accroupie" with a tooltip (circled 2).
- A media player at the bottom showing a video thumbnail and playback controls (circled 3).
- An annotation layer on the right side of the poem text (circled 4).
- An H5P activity interface (circled 5) with a question about the pronoun "qui" and a "Check" button.

A reading activity used in a French lit course in Canvas this Spring:

1. Annotated text (yellow highlights)
2. Glossary term (blue link with tooltip)
3. Audio & video content
4. Hypothesis' annotation layer
5. H5P activity in annotation layer (uses hacky method).

4. Using Learning Analytics

Goals for Learning Analytics

We're trying to make well-designed learning objects, but we have lots of questions:

- When a learner accesses one of our books, what do they do? In what order?
- How do they engage with the embedded media?
- How do they interact with the annotation layer (i.e. do they read annotations, do they respond to others' questions, do they post their own)?
- Do they engage with the interactive H5P activities embedded throughout? If so, which questions do learners get right/wrong? [*the only one we can answer now*]

List of xAPI Statements

Statements

- ⚙️ ⚡ Guest 144.92.40.46 experienced [Vocab P1 Q2](#) | 2 days ago (Tue, Oct 3, 2017 10:29 AM)
- ⚙️ ⚡ Guest 144.92.40.46 answered [Pendant la bataille de Salamine, les Grecs ont combattu l'invasion des](#) | 2 days ago (Tue, Oct 3, 2017 10:29 AM)
- ⚙️ ⚡ Guest 144.92.40.46 experienced [Vocab P1 Q1](#) | 2 days ago (Tue, Oct 3, 2017 10:29 AM)
- ⚙️ ⚡ Guest 144.92.40.46 experienced [Vocabulary Paragraph 1 Matrix](#) | 2 days ago (Tue, Oct 3, 2017 10:29 AM)
- ⚙️ ⚡ Guest 144.92.40.46 experienced [Introduction Camus Pt 2](#) | 2 days ago (Tue, Oct 3, 2017 10:28 AM)
- ⚙️ ⚡ Guest 144.92.40.46 attempted [Camus, L'exil d'Hélène \(partie 2\)](#) | 2 days ago (Tue, Oct 3, 2017 10:28 AM)
- ⚙️ 📸 swagstaff attempted [Fill in the missing words](#) | 2 days ago (Tue, Oct 3, 2017 10:07 AM)
- ⚙️ 📸 swagstaff attempted [Ronsard summative](#) | 2 days ago (Tue, Oct 3, 2017 10:07 AM)
- ⚙️ 📸 swagstaff attempted https://wisc-dev.pb.unizin.org/ronsardvieille271dev/wp-admin/admin-ajax.php?action=h5p_embed&id=1?subContentId=1 | 2 days ago (Tue, Oct 3, 2017 10:07 AM)
- ⚙️ 📸 swagstaff answered [Fill in the missing words](#) | 2 days ago (Tue, Oct 3, 2017 9:54 AM)
- ⚙️ 📸 swagstaff interacted [Fill in the missing words](#) | 2 days ago (Tue, Oct 3, 2017 9:54 AM)
- ⚙️ 📸 swagstaff attempted [Fill in the missing words](#) | 2 days ago (Tue, Oct 3, 2017 9:54 AM)
- ⚙️ 📸 swagstaff answered [Fill in the missing words](#) | 2 days ago (Tue, Oct 3, 2017 9:54 AM)
- ⚙️ 📸 swagstaff interacted [Fill in the missing words](#) | 2 days ago (Tue, Oct 3, 2017 9:54 AM)
- ⚙️ 📸 swagstaff interacted [Fill in the missing words](#) | 2 days ago (Tue, Oct 3, 2017 9:54 AM)

Sample xAPI Statement

```
{  
  "version": "1.0.0",  
  "actor": {  
    "objectType": "Agent",  
    "name": "swagstaff",  
    "mbox": "mailto:swagstaff@wisc.edu"  
  },  
  "verb": {  
    "id": "http://adlnet.gov/expapi/verbs/answered",  
    "display": {  
      "en-US": "answered"  
    }  
  },  
  "object": {  
    "objectType": "Activity",  
    "id": "https://wisc-dev.pb.unizin.org/ronsnardvieille271dev/wp-admin/admin-ajax.php?action=h5p_embed&id=7?subContentId=74f0caa1-1cf9-40d1-90bf-29d5db2e54ac",  
    "definition": {  
      "extensions": {  
        "http://h5p.org/x-api/h5p-local-content-id": 7,  
        "http://h5p.org/x-api/h5p-subContentId": "74f0caa1-1cf9-40d1-90bf-29d5db2e54ac"  
      },  
      "name": {  
        "en-US": "Fill in the missing words"  
      },  
      "description": {  
        "en-US": "Fill in the missing words<p>\\"Oyant\\\' est le participe pr\u00e0sent du verbe \\\"_____\\\' qui signifie \\\"_____.\\\".</p>\n"  
      },  
      "type": "http://adlnet.gov/expapi/activities/cmi.interaction",  
      "interactionType": "fill-in",  
      "correctResponsesPattern": [  
        "{case_matters=false}ou\u00e0efr[,]entendre",  
        "{case_matters=false}ouir[,]entendre",  
        "{case_matters=false}ou\u00e0efr[,]entendant",  
        "{case_matters=false}ouir[,]entendant"  
      ]  
    },  
    "context": {  
      "contextActivities": {  
        "parent": {  
          "objectType": "Activity",  
          "id": "https://wisc-dev.pb.unizin.org/ronsnardvieille271dev/wp-admin/admin-ajax.php?action=h5p_embed&id=7"  
        }  
      },  
      "category": [  
        {  
          "objectType": "Activity",  
          "id": "http://h5p.org/libraries/H5P.Blanks-1.8"  
        }  
      ]  
    }  
  }  
}
```

xAPI statements are JSON ‘triples’ which follow this basic pattern: [ACTOR] + [VERB] + [OBJECT]. They can also include extra contextual information.

This statement is an “answered” statement from a “Fill in the missing words” H5P activity.

1. Actor
2. Verb
3. Object
4. Description of the activity and the correct answers
5. “Context” section. More detail on next slide.

Sample xAPI Statement, Cont

```
  "context": {
    "contextActivities": {
      "parent": [
        {
          "objectType": "Activity",
          "id": "https://wisc-dev.pb.unizin.org/ronsnardvieille271dev/wp-admin/admin-ajax.php?action=h5p_embed&id=7"
        }
      ],
      "category": [
        {
          "objectType": "Activity",
          "id": "http://h5p.org/libraries/H5P.Blanks-1.8"
        }
      ],
      "grouping": [
        {
          "objectType": "Activity",
          "id": "https://wisc-dev.pb.unizin.org/ronsnardvieille271dev/chapter/quand-vous-serez-bien-vieille-sonnets-pour-helene/",
          "definition": {
            "type": "http://activitystrea.ms/schema/1.0/page",
            "name": {
              "en": " | Quand vous serez bien vieille..." (Sonnets pour H\u00e9l\u00e8ne)"
            },
            "moreInfo": "https://wisc-dev.pb.unizin.org/ronsnardvieille271dev/chapter/quand-vous-serez-bien-vieille-sonnets-pour-helene/"
          }
        }
      ]
    },
    "extensions": {
      "http://id.tincanapi.com/extension/ending-point": 1
    }
  },
  "result": {
    "score": {
      "min": 0,
      "max": 2,
      "raw": 2,
      "scaled": 1
    },
    "completion": true,
    "duration": "PT700.16S",
    "response": "ouïr, l'entendre"
  },
  "authority": {
    "objectType": "Agent",
    "name": "Unizin PressBooks Dev",
    "mbox": "mailto:hello@learninglocker.net"
  },
  "stored": "2017-10-03T09:54:08.164Z",
  "timestamp": "2017-10-03T09:54:08.164Z",
  "id": "312e5d25-2061-4ee4-a35f-c8bab2821840"
}
```

Additional “context” can often be quite useful.

1. Parent activity
2. ‘Grouping’ information
3. Result information. Can include a score value, the response, and completion state information

Learning Locker Visualizations



Sample interactive visualizations built in a Learning Locker Dashboard using xAPI statements

5. Future Goals

What We Want to Do Next [Hackathon Ideas?]

- Allow H5P activities to be embedded by H client without customization
[\[https://github.com/hypothesis/client/issues/509\]](https://github.com/hypothesis/client/issues/509)
- Allow annotations to display fully expanded by default
[\[https://github.com/hypothesis/client/issues/565\]](https://github.com/hypothesis/client/issues/565)
- Link annotations for cloned books with ‘isBasedOn’ metadata: [<https://discourse.pressbooks.org/t/hypothesis-annotations-and-cloned-books/304/3>]
- Make highlights more visible + make adjacent highlights distinguishable
- Use SSO/[OAuth](#) to create hypothesis accounts when students access books via LTI in the Learning Management System.
- Produce [Caliper 1.1 statements](#) for annotation events [like xAPI but JSON-LD, with a controlled vocabulary for verbs and specific ‘profiles,’ including annotation)

George & Mary Oppen's home [2811 Polk St.]



How shall we say how this happened, these stories, our
stories

Scope, mere size, a kind of redemption

Exposed still and jagged on the San Francisco hills

Time and depth before us, paradise of the real, we
know what it is

To find now depth, not time, since we cannot, but depth

To come out safe, to end well

We have begun to say good bye
To each other
And cannot say it

—from “*Some San Francisco Poems*”

Questions?

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