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Textbook Remix: An Introduction to LibreTexts for OER Editing

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Textbook Remix: An Introduction to LibreTexts for OER Editing

Abstract

So, you've found an open textbook that you really like, but it's not quite right for your class? LibreTexts might be the answer! Join us for this informal webinar to learn a little more about this online platform designed for customizing and distributing open textbooks. From Gettysburg College, Scholarly Communications Librarian Mary Elmquist will provide an introduction to the platform, its structure and features, and Dr. Alice Brawley Newlin, Assistant Professor of Management, will speak on her ongoing experiences using LibreTexts to edit and implement an open textbook for a Statistical Methods course.

This session should provide insight for both instructors interested in LibreTexts for their own projects and for librarians and other staff on campus who work to support OER adoption. Please bring your questions, as there will be plenty of time for Q&A.

Keywords

open education, open educational resources, OER, LibreTexts

Disciplines

Higher Education | Higher Education and Teaching | Library and Information Science | Scholarly Communication

Comments

A video recording of this presentation is also available.

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TEXTBOOK REMIX

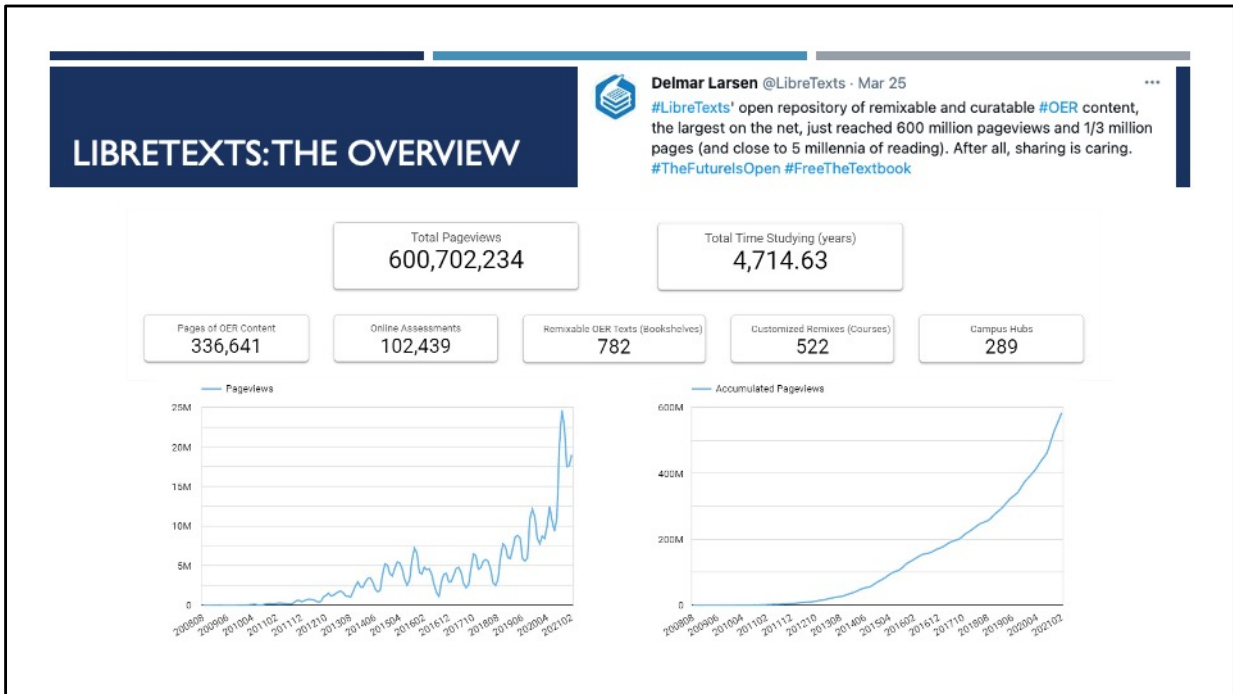AN INTRODUCTION TO LIBRETEXTS FOR OER EDITING

**LIBRETEXTS:
THE OUTLINE**

Overview

Structure

Remixer

Features and Tools

LibreTexts is an open textbook authoring and remixing platform.

For numbers, I've got some stats that were taken from a March 25 tweet from the LT director's Twitter (which also functions as the official LT account, as best as I can tell.) As you might be able to tell from the graphs, LT has been growing a lot as a platform and definitely experienced a big boost in the last year. There's now almost 800 books in LT, with over 500 remixes on 289 campuses.

So, to touch really broadly on what LT does, it is an authoring platform, but I would say that its primary strength is as a remixing platform—hence the main topic of our discussion today. I think there are some original texts on LT, but it's not as common as with, say, Pressbooks. LT also isn't like OpenStax—they're not primarily a creator of original open books. That "remixable OER texts" number is pretty much entirely imported open books and remixes. Which leads us nicely into…

LIBRETEXTS: THE STRUCTURE

…the structure. The best way to show this off is through a tour of the website, so I'm going to do a little screen sharing and we'll hop over there to look at how things work in the LT website.

Libraries: Broad disciplinary grouping; homes to:
- Bookshelves: These contain the remixable course materials. They're broken down slightly more granularly than the broad subject library, and each library contains the individual items, including:
    - Open textbooks: straight, unedited imports of open textbooks (e.g., OpenStax)
    - Textmaps: content pulled from one or more open textbooks designed to "map" onto a specific commercial textbook and aid in easy adoption
    - Some ancillaries: Worksheets, exercises, etc. I say some, because…
- Learning objects: A newer addition to the LT libraries (I think). These don't appear in every library, but in those where they do, they contain a variety of supplemental and ancillary materials.
- Campus bookshelves: Where remixes live. These are organized by campus and then by course in what they call a "shell". The course will contain the book (and any ancillaries.)

Now is also as good a time as any to talk about how LT accounts work. Similarly to how OpenStax works, you need to request and create an instructor account to get access to the backend of LT. These requests process quite quickly, and we'll touch on this more, but LT's support is really responsive and helpful. There was no problem or delay when I requested an account as a librarian, even though I was up front about the fact that I wasn't really signing up to make my own book per se.

However, as of right now, LT accounts are made within a particular library. For instructors, this means that you request your account for the library where your book fits best. When I asked as a librarian where my account should live, they just said to pick whichever made the most sense to me—so my account is in Social Sciences (I liaison to our school's Anthro, Sociology, and WGS departments.) I'll show this off in just a minute, but I want to emphasize that where your account lives doesn't affect what you have access too—you can still remix with all the books in LibreTexts. It just determines where your content lives. On the website, there is now a little SSO button next to the login—this is a relatively new addition, so I expect single-sign-on will be available soon(ish).

LIBRETEXTS:
THE REMIXER

So, let's transition to talking about the star of the show: the LT Remixer tool. The first thing I want to point out is that, no matter which library your account is in, you have access to all the content in all the LT libraries when you use this tool.

I don't want to turn the day into a full-on demo, but I do want to touch quickly on the main features here and how this works.
Starting from the top:
- New/edit mode and load previous session
- Remix name
- The main remix panel:
    - Library pane: Books are organized the same way they display in the library—and then individual books are broken down by chapters and pages. Pages are where the content of the book lives. These can be drag-and-dropped into the…
    - Remix pane
        - Reorder and rename existing pages
        - Add/name new sections

The remix pane is not where new *content* is added. This simply allows you take

original content from one or more existing books and reorder it it to create a mirrored version. Once you've done that, you're able to access the content in your sandbox, and that is where you can edit the content or add new content in their rich-text editor. LT really shines if your project is primarily a rearrangement of an existing book or if you're looking to take chapters from several books and combine them into one resource to make the content easier for students to follow.

Once your structure is created in the remixer you're able to go in and edit content on the page level in your sandbox. When your remix is first created, it is, as I mentioned, mirrored (LT calls it "transcluded") from the original page. If the original book is updated, yours will be updated as well. If you want to make changes, you need to "fork" the original page to get a static, editable version. Once you've completed your edits, the LT team will move your book from your sandbox to the campus bookshelves (so it doesn't need to be visible while it's very much under construction.) If this seems complicated—you're not wrong. If the Remixer is where LT shines, this is where it's a little rougher. I'll let Alice talk a little more about her team's experience here, but broadly speaking, this editing can be time-consuming and finnicky.

LIBRETEXTS: THE OTHER FEATURES & TOOLS

- Support, community, and training
- Print-on-demand
- LMS Import
- and more to come…

I want to touch on some of the other available features and tools available from LT.

First, I want to talk about their support and community. The overview I just gave was really cursory; LT is a powerful tool, and that comes with a lot of complexity. They do have a full Construction Guide on their website that can be a great introduction to how those tools function in practice. Additionally, they run a full-day workshop every once in a while called LibreFest, where they provide virtual, hands-on training with these tools. The next one is scheduled for May 25, there's another one coming in July, and content from past LibreFest events are freely available on YouTube. Finally, the LT support team is fantastic, as I mentioned earlier. Delmar, the founder, handles a lot of the support personally—he knows the platform through-and-through and teaches on it himself--and he is always eager to help out.

Another few tools that I know are often of interest: LibreTexts does allow for POD. They have a partnership with Lulu, but they also allow for export of the whole book as a PDF if you, for example, have a campus print shop who can print copies cheaper. There is also an LMS import feature—I admittedly don't know much about this, but it as stated, uses Common Cartridge, so the content of a LibreTexts book can be imported to Moodle, Canvas, or D2L.

And finally, LT is a very active platform, and they are constantly adding new features, to the extent that they've started referring to everything together as the "LibreVerse". They've been expanding accessibility efforts, adding things like interactive models and coding modules... Possibly most exciting for many: they're currently piloting a complimentary homework platform in California called ADAPT. While LT is very complex, it's also very dynamic, and they really do their best to meet a wide variety of instructor needs.

And now, I'll hand it over to Alice to talk about the instructor experience and some of the pros and cons of the platform from a more-detailed user experience!

I briefly highlight two topics: first, **why** we chose OER (and some reasons that it might work well in other classes with similar circumstances), and second, a brief overview of **the process** of choosing an OA text, editing it, and using it so far, with a special emphasis on some of the unexpected bumps we encountered along the way.

As a bit of background or context, I teach in our Management department, and the course that we switched to OER for was MGT 235 (Statistical Methods). My colleague, Prof. Marta Maras, and I worked very closely together on this whole process because we are the two faculty who currently teach this course.

BUSINESS, ORGANIZATIONS, and MANAGEMENT MAJOR CHECK SHEET

Complete by end of 1st yr.
- ECON 103   Principles of Microeconomics
- MGT 155   Accounting

Complete by end of sophomore yr.
- MGT 235   Statistical Methods
- MGT 270   Organizational Behavior

Complete by end of junior yr.
- MGT 301   Research Methods
- MGT 395   Ethics

Students must earn a C or better in MGT 235 in order to be a BOM major; students may not repeat MGT 235 for their major

First up, I want to discuss the "position" of the course in our major as one key reason we decided to switch to OER.

MGT 235 is an important course for the entire Business, Organizations, and Management major, so students must earn a C or higher in the course with only one attempt at it. This means that – in addition to the general bad rep that statistics courses tend to have – students are often quite nervous about doing well in this course. So making the switch to OER really helped alleviate one source of potential stress, in terms of needing the textbook for both the material and the homework assignments that we dive into right away at the beginning of the semester. All students had access to the text on Day 1, so that helped us avoid any concerns with finding, affording, or waiting on shipping a copy of the book. It's fantastic to be able to support students' success right off the bat in this way.

And, more broadly, considering that the course is a requirement with one attempt for each student, we really focus on keeping everything as fair as possible across students in the course. Being sure that every single student has equal access to the textbook was one more way we could enact that philosophy of fairness across students' abilities to succeed in the course.

$$r = \frac{\Sigma Z_X Z_Y}{n} \qquad \textbf{1844}$$

$$t = \frac{\bar{X} - \mu}{s/\sqrt{n}} \qquad \textbf{1908}$$

$$F = \frac{\Sigma n_g (\bar{X}_g - \bar{X})^2}{\Sigma(n_g - 1)s_g^2} \qquad \textbf{1921}$$

The second reason that we wanted to switch to OER was due to our course content.

These formulas are pretty much everything a student will learn in an introductory statistics course. Of course, every stats course can emphasize different variations on these, but these are generally what the whole course boils down to.

But what's really striking here is the dates that each of these formulas were published. Notice that the "newest" of these is very literally one hundred years old. With how well established these formulas are and how many times they've been explained pretty much equivalently across different sources and different disciplines, it's really difficult to justify requiring students to pay for access to that info. (And even more, to buy a new edition of a book every year or few years…)

So switching to OER for us, and maybe for folks teaching introductory-level courses where this holds true, just made sense.
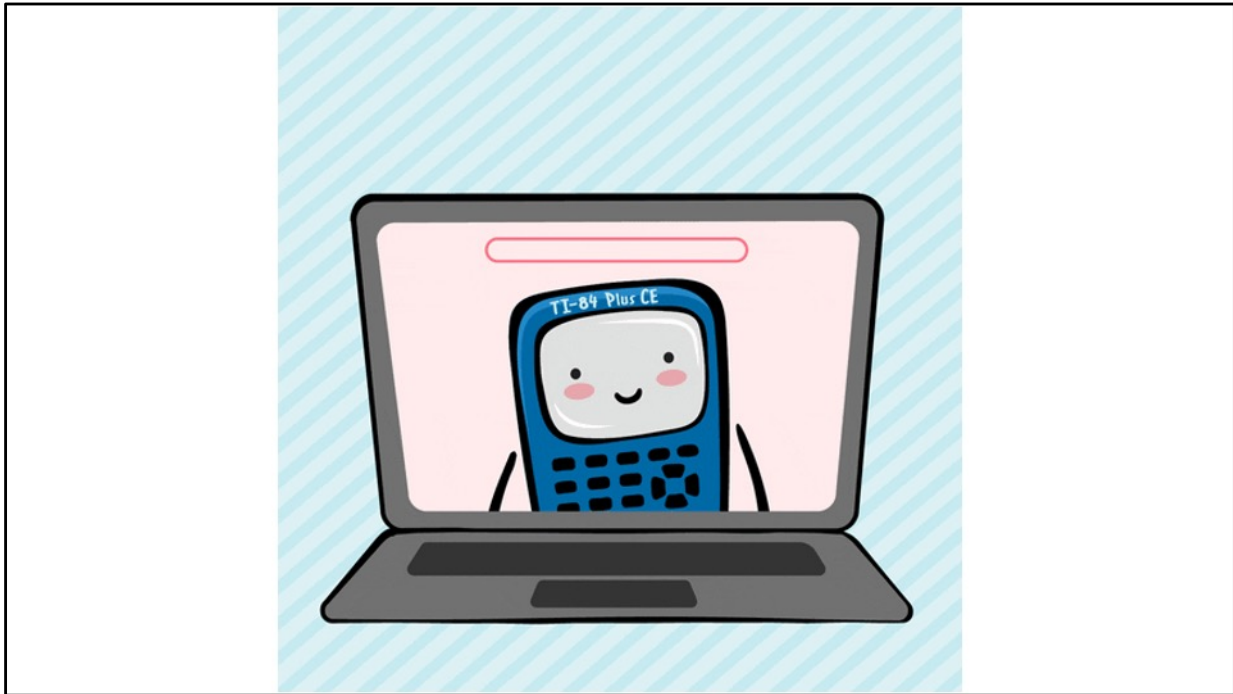
Third, and this applies to us all to some degree right now, it was great to know students would have access to the text equally across in-person versus online learning, and no matter where they were learning from (their dorm, home, a friend's house, somewhere else), and no matter how quickly or unexpectedly they might have to move places depending on quarantine or de-densifying needs. Switching to OER made the textbook one less thing to worry about during a really stressful time for the world.

So, let's talk about the process. Here's what we thought would happen: we'd pick a book we 100% loved, we'd make some minor tweaks to it so that we 110% loved it, and students would access the book online through LibreTexts (and be super stoked).

1. Review books, pick a book ~~we, like, *totally*~~ loved

2. Use LibreTexts to edit the book ~~to perfection~~

3. Share ~~LibreTexts link to~~ book with students

Here's what really happened, though. We found a book we were 95% happy with, and mainly wanted to make one key change to how a particular topic was explained in the book. We thought this was essentially going to be a "find and replace" sort of situation, because the change we wanted was fairly small in terms of how it could be re-phrased… I'll talk about it next, but this was definitely not quite that simple.

Second, we didn't get to edit everything totally perfectly. We got something we were happy enough with, but then ran out of time before the semester started (more on this in a minute) to really finesse everything.

Last, for a couple reasons I'll explain, we ended up sharing the book with students as a PDF, rather than a link to the "live" version on LibreTexts. Students also of course could print this PDF themselves, and they were offered the option for a printed and bound copy through our campus print shop.

1. Review books, pick a book ~~we, like, *totally* loved~~ → 1b. Pick a book we were *mostly* happy with

1c. Import that book into LibreTexts library

1d. Get book into standard LibreTexts format

2. Use LibreTexts to edit the book ~~to perfection~~

1e. Learn how the LibreTexts tools work

3. Share ~~LibreTexts link to~~ book with students
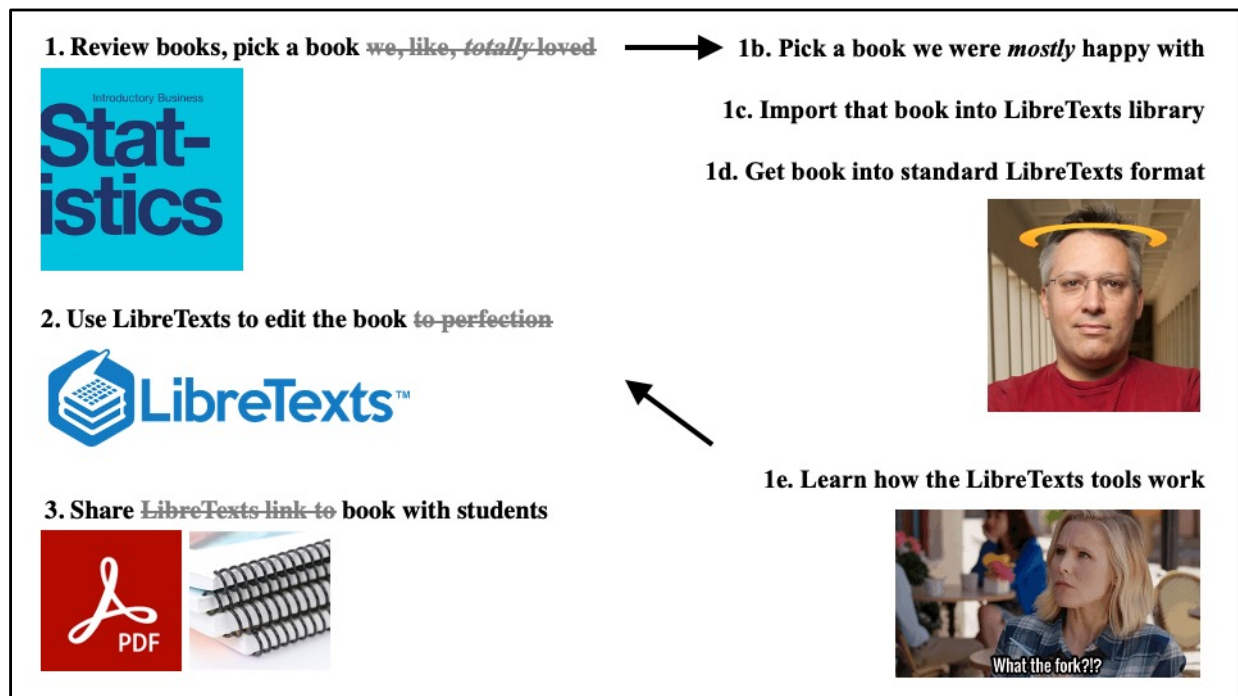
OK, so on picking the book – I mentioned there was that one key edit we wanted to make throughout the book about a particular topic. But it turned out that our chosen book was not one that is already in the LibreTexts library, which meant we needed to have it imported, and then it needed to be edited to match LibreTexts' standard formatting rules (which is so important because it makes remixing with other sources within their library more seamless).

That first picture is of Delmar Larsen, who is the founder of LibreTexts. In my opinion, Delmar deserves a halo or a gold medal or something, for how helpful and patient he was with our LOTS of emails about editing and formatting the book. Although this was an unexpected hiccup for us, Delmar and his team are amazingly supportive and responsive. But for both your own sake and Delmar's, I would definitely try to start this process early. As you can imagine, we were not the only ones sending lots of emails and asking lots of questions right before the start of a semester.

Once we were set to edit the book content, though, there was still a big learning curve I hadn't quite anticipated. (Remember, I thought this was going to be like, find-and-replace levels of effort.) There are some platform-specific tools (like, lots of needing to "fork" pages to edit them!) that I wasn't familiar with, so this is another

good reason to leave yourself plenty of time to achieve what you want with the book in terms of editing.

Speaking of specific edits, I would keep an eye out for a few specific types of content that we found toughest to edit to our satisfaction.

First, equations, like the ones I showed toward the beginning, understandably require some pretty complex code behind the scenes in order to display in the way you want. Also, keep an eye out for font sizing to change across sections. This may be due to our source being imported into LibreTexts, but we noticed a few sections would show up in much smaller font than others. (As a font nerd, it was hard for me to not *need* to fix all of these.)

Tables were challenging to get to look the way we wanted, too. I know the table here looks beautiful… it looked very crazy and unreadable along the way while editing.

And one last thing you might want to check for, especially if you are making lots of or especially key edits to a book, is that the links within the text might still link back to the original version of the book (outside of LibreTexts, if you imported like us). At this point in our editing process, we were out of time to get the textbook finalized for the semester, so we ended up simply sharing the book as a PDF (without any live links) to circumvent the issue. Ideally in the next iteration of the book, we'll update the links

to take students to corresponding sections in the current version.

Some Essential Vocab & Info

Libraries (subject areas)

Campus hubs/shells & course/faculty shells

The remixer (and "new remix" vs "edit remix" modes)
- Your "sandbox" vs. a pushed/publicly viewable/downloadable version

Transcluded vs. forked content
- You can always unfork…

There is a revision history (can revert to former versions; can compare versions)

Dynamically-numbered examples, figures, tables***
- PDFs are updated every few days, not every time you edit
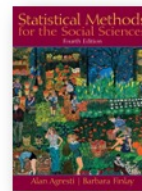
Site can be slow

Leave yourself plenty of time
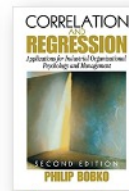
Consider sources already in LibreTexts

Check print/PDF vs online versions
- **Links**
- **Formulas**
- **Tables**
- **Font sizes**
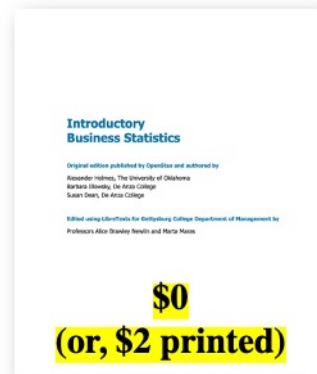- **Page numbers**
- **Fractions** (¼ vs. 141414141414)

Keep a running list of second-round changes to make

Statistical Methods for the Social Sciences
Fourth Edition
Alan Agresti | Barbara Finlay
$90 - $210

CORRELATION AND REGRESSION
Applications for Industrial Organizational Psychology and Management
SECOND EDITION
PHILIP BOBKO
$40 - $90

Introductory Business Statistics

Original edition published by OpenStax and authored by
Alexander Holmes, The University of Oklahoma
Barbara Illowsky, De Anza College
Susan Dean, De Anza College

Edited using LibreTexts for Gettysburg College Department of Management by
Professors Alice Brawley Newlin and Marta Maras

**$0
(or, $2 printed)**

Takeaways from me for this process are listed here.

One thing I haven't mentioned yet that may help to keep in mind, is that our textbook did not have standard page numbers printed on the PDF. Of course, this is irrelevant when you're looking at an online version split across different webpages, but it was something we realized only after the start of the semester that would have been helpful to have, both for ourselves and for our students.

Speaking of the page numbers, which we'd like to add in the next-edit version of this book, Marta and I also started a running Google Doc where we would make notes every time we found something we'd like to change or add as we went through the semester using the book. These range from anything like fixing a small typo, to changing examples used in sample problems in the book, reorganizing sections, and adding a few entirely new sections that we'll write ourselves. Whereas in a typical textbook we wouldn't have this sort of opportunity, it's very liberating to know we're able to modify anything we want in a book to really make it suit our class and our students.

In closing, I want to note that making the switch to OER, to us, was absolutely worth

the work. We have moved from students needing to pay up to $300 for the two previously-required textbooks, to $0 and instant access (or just $2 for a copy through our fantastic campus print shop, who are speedy, too). Being able to save each student that much cash, worry, and stress, and equalize their chance for success in this course, makes the move to OER a very rewarding one.