Open Textbooks: Access, Affordability, and Academic Success

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Open Textbooks: Access, Affordability, and Academic Success

Abstract
This session will give Gettysburg College faculty a chance to learn more about open textbooks and how to discover options that might work for the courses you teach. Open textbooks can help alleviate the burden of textbook costs for students and provide faculty with content that can be customized for their course. Open textbooks are full, real textbooks, used by many faculty across the country, and licensed to be freely used, edited, and distributed. After the workshop, participants will be invited to write a short review of an open textbook they might assign in a course (please note: open textbooks are not available for all subjects). Your review will be shared in the Open Textbook Library so it may benefit other faculty considering open textbooks. Workshop participants who write a review will receive a $200.00 stipend, payable upon receipt of the review.

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Keywords
open education, open textbook, open educational resource, OER, affordable learning pennsylvania, gettysburg college

Disciplines
Scholarly Communication

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I’m pleased that so many people are interested in today’s presentation. Open education is a topic that excites me for many reasons, but one is that it sits at the convergence of academic affairs and student affairs. As someone whose organizational home is in the academic division of the College, I’m often not as aware as I should be of the array of issues that affect student learning and student success. The cost of attending Gettysburg College – including all the smaller charges that aren’t included in tuition and room/board – is something that can make or break an individual student’s experience here. As our student demographic continues to change, this is something that we need to be even more mindful of as we construct learning opportunities for our students.

A note – I knew that you would be eating and some people might be arriving a little late or leaving a little early because of class schedules, so I designed this session as a straight up presentation. No group work, no active learning. That said, there will be time at the end for questions and discussion, and I’m completely comfortable with answering questions mid-stream. Don’t hesitate to wave at me or speak up in the middle of things.
Today:

- Economic context for open textbook movement
- Pedagogical issues
- Practical concerns (including the book review stipend)

A quick overview of what we’ll cover today –

There tend to be two main arguments for transitioning courses from using conventional textbooks to using open materials. Instructors sometimes find both persuasive, and sometimes only one, but I’ll go through both here. The first argument is economic and it focuses more on students, since they are the ones who carry the burden of textbook cost; the second is pedagogical and has to do with both teachers and learners.

We’ll also talk about some practical concerns, like what exactly we mean when we say “open textbook,” who’s using them, where you can find them, and of course, how to apply for the enticing $200 book review stipend that may have attracted you today.

Let’s start with the economic argument, one which focuses on students.
Student debt is really high, and it’s incredibly stressful. Today’s students are very aware that the Millennials took on lots of student debt in order to earn degrees which were supposed to get them great jobs – but that promise turned out to be empty for many of them. Many students are now more hesitant to take on big loans, and I think we should applaud their financial awareness. They don’t want to dig themselves into a hole they can’t get out of. And the hole is potentially very deep.

National data say the average borrower from the class of 2017 owes $28,650 in student loans. Even if someone does graduate and gets a decent job, think how that debt keeps them from doing other things we expect adults to do – like buy houses or pay child care bills. And $28K is just the average – many students have much higher debt. (and this is just for undergraduate degrees)

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This report covers bachelor’s degree recipients at public and private nonprofit colleges.

National stats: average student loan debt: $28,650
Proportion of students with debt:

Source: https://ticas.org/posd/home
Pennsylvania is a high-debt state

The national average is $28K, but our state average is even higher. In fact, Pennsylvania has the second highest average student loan debt in the country. The proportion of students with debt is 67%.

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Average debt: $36,854
Proportion of students with debt: 67%
The Gettysburg College numbers look a little better than Pennsylvania numbers, but are still above the national statistics.
Average debt: $31,323
Proportion of students with debt: 62%

These are post-graduation numbers. The Gettysburg College Fact Book says that 68% of the class of 2017 received aid and the average award is $33,317 – I assume that snapshot was taken in August 2013 when the class entered.


Source: https://ticas.org/posd/map-state-data#overlay=posd/state_data/2018/pa (The Institute for College Access & Success)
Let’s put student loan debt in context. These data are from the Federal Reserve. The yellow line (labeled “consumer revolving credit”) is credit card debt over the past decade or so. The purple line is student loan debt.

Source: https://www.federalreserve.gov/releases/g19/Current/ (via Open Textbook Network slide deck)
Here’s another way to put costs in context. These data are from the Bureau of Labor Statistics, and the chart shows how prices have changed in the past 20 years. Note that college tuition and college textbooks are way at the top – the only thing that has increased in price more is hospital services. Inflation over this time period has been about 57%, but tuition and textbooks hover around 200%. If you haven’t purchased textbooks yourselves in a while, you might be shocked to see the increase. One compassionate action you can take is to look up your own books on our bookstore website to see what they cost.

Faces are more moving than data, which is why The Chronicle of Higher Education presented their recent piece about student food and housing insecurity in this way. There is growing national news coverage about students who make tough decisions on how to spend scarce funds – they balance tuition, textbooks, food, rent, child care, and other bills.

This was published in November 2018. Source: https://www.chronicle.com/interactives/insecurity
Our residential undergraduate context may have a few less variables, but there are still students at Gettysburg who can’t afford all their books, students who need help buying toiletries and other essential consumables, students who send money home to their families, and yes, even students without homes. This is a clip of the “Mosaic Cupboard” web form, via which students can confidentially request personal items.

More about Mosaic Cupboard:
http://www.gettysburg.edu/about/offices/college_life/ome/academic-support/

Mosaic Cupboard order form: https://docs.google.com/forms/d/e/1FAIpQLSe37k-ZXxVdt-qIDdOQ3ZLLaCtZ44V1yCQgw0hb8Yh-5gajHQ/viewform
The bottom line: college is expensive. Many faculty are uncomfortable with our sticker price of over $60,000/year, but that’s not a figure we can control or influence. There is one element you have 100% control over, however...

- Tuition and fees
- Room and board
- Books and supplies
- Personal expenses
- Transportation
Tuition and fees
Room and board
Books and supplies
Personal expenses
Transportation

...and that is the books and other learning materials that you assign to your students.
Here’s another graph that focuses on textbook prices. It shows that textbook prices have risen at 3-4x the rate of inflation (CPI=inflation) since 1980. I invite you all to look up your course on the bookstore website and see what your students see. If you haven’t checked your price point in a few years, you may be surprised at how quickly it can rise.

Our financial aid office recommends budgeting $1000 for books and supplies per academic year. (Source: https://www.gettysburg.edu/scholarships_aid/tuition_fees/)

Chart source: https://www.bls.gov/cpi/
Okay, so book prices are high and that affects the student wallet. But what do high book prices have to do with academic success? These data are from a statewide survey in Florida and they show the impact of textbook costs on student. If high book prices had no impact on student learning, I might complain about them - but I wouldn’t be here talking to you today. The fact is that high book prices often have negative academic outcomes for students – like avoiding certain courses, dropping or withdrawing from courses, earning poor grades, etc. Note the bar at the far right – 66% of surveyed students don’t always purchase the required textbooks. If you’ve ever been frustrated that your students don’t seem to have their books the first week of class (or the second week, or the third week...), price might be a factor. We also know that the student grapevine knows which courses really use their books and students make a calculated decision about whether to buy any given book based on what other students have told them.

Source:

So what do OUR students think? Here is some very inexact, self-reported data collected in fall 2017. This was a big poster in the library that students added post-its to.
We also asked students to share their strategies for getting books, and here are some things they wrote. Note the “just struggle” comment and also “fake it til you make it,” which someone dittoed.

Anecdotally, we also hear from students who come to the library hoping to find their textbooks each semester. [Executive Director of the Office of Multicultural Engagement Darrien Davenport will say a few words here.]
Let’s shift gears. So far I’ve focused on problems that land on students to deal with. Reducing or eliminating book costs would certainly help many of our students. In fact, I have come to think of this issue in the context of universal design. Universal design accounts for the needs of all people. While a curb cut may be essential for people with mobility impairments, those little ramps benefit many others and are just plain nice for everyone. Similarly, making textbooks more affordable is essential for a portion of our student body, but would benefit all our students. It could even become a point of distinction, as it has at some institutions that advertise “Z-degrees” that have zero costs for course materials.

But while you may be sympathetic to student needs, I realize you are NOT students. You are faculty, and you care more about learning outcomes and pedagogy than costs. What’s in it for you?

Let’s talk about teaching considerations. First, I’ll share data about the efficacy of OER, and then we’ll move to faculty attitudes.
We know that expensive books can lead to students not having the book, which can lead to negative learning outcomes.

But what if we look at things in the other direction? Do courses that use open textbooks result in positive learning outcomes compared to courses that use conventional textbooks? Or are outcomes with open textbooks at least not WORSE than conventional textbooks? This is often a first question I hear from faculty. Sometimes they’re expressing an underlying concern about textbook quality, a feeling that if something is free it can’t possibly be as good as the name-brand version from the commercial publisher. It’s a fair question and one that instructors should be asking.

What do we know about this?

This recently published piece looks at the literature about efficacy and perceptions related to OER use.
Research on OER use has been ramping up – quickly. Between 2002 and 2015, there were a total of 16 studies that examined efficacy and/or perceptions of OER. From 2016 through August of 2017, there were 17 more. In total, 17 of those studies examined the efficacy of OER. Some were smaller and some were larger, but collectively, the studies involve about 155,000 students. The finding? “While there certainly are limitations in individual studies, collectively, there is a robust finding that utilizing OER in the classroom does not appear to decrease learning outcomes and saves considerable funds.”

There are more interesting findings in some of the individual studies that looked at things like course drop rate and course completion, but the overall summary is that OER aren’t hurting learning outcomes.
Things get more interesting if you start separating students into various subgroups. A recent study of students at the University of Georgia shows that while all students benefit from courses shifting to OER, Pell-eligible students benefit at a much greater rate. Remember, students with family household income below $50,000/year are eligible for Pell grants, but most Pell grants go to students with family income under $20,000/year. These are students who are likely to struggle with buying a $200-$300 book for one class.

Does it matter at Gettysburg? Well, it could make a difference. Our Pell Grant recipient number bounces around a bit, but it appears to be headed in an upward direction. This graph is from the Gettysburg College Fact Book. This past fall, 140 first-year students had Pell grants. The total number on campus right now is 413, according to our Financial Aid Director.

We’ve been hearing a lot about the shifting demographics of our student body. The President, Provost, and others have been very clear that we will need to offer more financial aid in the future, not less. To me, this is a signal that we also need more affordable textbooks. If you are sensing that students aren’t prepared for your classes, and that it might be because of textbook issues, then a switch to open materials is worth thinking about.

From Financial Aid Director Chris Gormley: “For the Fall of 2018 we have a total of 413 Federal Pell Grant recipients. This represents 16% of the student body.”
So the research shows that open textbooks work at least as well as conventional materials, and that they may be especially effective for our most financially needy students. Let’s turn to faculty attitudes.

This study by the Babson Survey Research Group has been conducted since 2012. The 2018 results just came out. There’s a lot of encouraging news in this report. The top-level headline is that in the past year, the number of faculty using OER has more than doubled (to 13%, up from 6% last year) and awareness of open textbooks is nearing 50%. One of your handouts has some other key results from the report that you can look at later, and a link to the full report.


Even if the phrase “Babson survey” isn’t familiar, you may have seen the coverage in The Chronicle of Higher Education. The choice of headline language is a bit more negative in this case, but the article itself does a good job summarizing faculty attitudes toward traditional textbooks (no love lost there) and why they think students don’t have them (cost is the primary factor, but there is a new sense that some students don’t think they need them if they go to class). I encourage you to take a look at this if you haven’t already seen it.

The faculty attitudes presented in this piece align well with what we heard when we spoke with many of you during the Textbook Listening Tour last fall. Many of you have all sorts of issues with textbooks, whether they are free, reasonably priced, or expensive. Many of you are conflicted about ebooks and know that there are pros and cons to both reading ebooks and teaching with ebooks. Many of you have needs for ancillary materials like presentation slides, test banks, interactive exercises, language videos, and more. Many of you have issues with and questions about bookstore operations. Faculty needs and attitudes are wide-ranging, and I would never claim that converting every single course to using open materials is the right way to go. In the end, only you can decide if open materials will work in your course. Odds are they will work for some of you, but not all of you.

So let’s talk more about what exactly open textbooks are and what they can do for you.
Let’s begin by making sure we are all on the same page about what open means. There are two main ways to think about it. Many people focus on the first one, but both are critical.

Open materials are free to read and use – that’s the “gratis” part – but they are also free to use with little or no restrictions – that’s the “libre” part. I often hear the phrase “Think free as in free speech, not free beer” – sharing in case that helps! (Richard Stallman, source: https://en.wikipedia.org/wiki/Gratis_versus_libre).

In addition to providing free-to-read materials, open licenses allow you to do all these things – copy, share, edit, mix, keep and use. (Note that “copy” means you can print and reproduce – some learners prefer print materials and open textbooks can be printed! Some providers have created high-quality, low-cost print editions like the ones we brought along. Even if there isn’t one of these, you can print yourself or have the campus print shop make items – legally.)

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Open educational materials typically come with open licenses from Creative Commons that tell you specifically what you can do with material that someone else created. This logo may look familiar to you.
These are the elements of a Creative Commons license.

BY means “attribution” – credit your source
NC is “noncommercial” – it means you can use this material to make a new thing as long as you’re not selling your new thing
SA is “share alike” – it means you can use this material to make a new thing as long as you license your new thing with a “SA” license. I think of this as a “pay it forward” license.
ND is “no derivatives” – it means you can use this material to make a new thing as long as you don’t revise this material. You can add to it, but you can’t change it.

The elements can be mixed and matched to create six different licenses. The CC-BY license is the most open, and the CC-BY NC ND is the most closed.
The CC logo looks a bit like the regular copyright logo, but a CC license does not replace or restrict copyright or the protections it gives to authors. CC licenses give authors a way to signal to downstream users what they can and cannot do with the work, without explicitly seeking permission. Works with CC licenses are ideal for people who want to mix and match to create a new work that perfectly suits their purposes.

I hope it’s becoming clear how beneficial CC-licensed materials can be to an instructor who is a mixer-and-matcher. Maybe you have a textbook but you don’t use all of it. Maybe you teach it in a different order. Maybe you supplement it with other materials. Maybe you even created some of those other materials. If all those things had CC licenses on them, you could remix your own textbook and give it to your students. They could read it online or print it. You could even have our campus print shop reproduce and bind it, as CC licenses allow duplication.

COOL, right?

Are Gettysburg professors using open textbooks? Yes! Here are a few...
CS 221
Computer Organization and Assembly

Introduction to MIPS Assembly Language Programming

CS 391
Quantitative Reasoning

Python Data Science Handbook
Essential Tools for Working with Data

Charles W. Kime

Jake VanderPlas
SOC 250
Digital Culture & Online Behavior

ES 316
Conservation Biology

HOW THE WORLD CHANGED SOCIAL MEDIA

What Works in Conservation
2018
The question I hear the most from faculty is “what open textbooks are available in my field?” There are a lot of ways to find open textbooks, including Google, but my first stop is always the Open Textbook Library.

This site comes from the Open Textbook Network at the University of Minnesota. It compiles records of open textbooks so you can find them easily. It also contains reviews written by college professors. The reviews are open, so you can see exactly who wrote them and what type of institution they work at and classes they teach.
Example: if I look for astronomy books, I can quickly see titles, authors, and brief descriptions, as well as the rating, which looks to be about 4.5 stars averaged over 10 reviews.

When I click through, I can see a table of contents, author information, links to the book, as well as the full content of the 10 reviews.
The reviews all follow a rubric with these 10 criteria. These reviews not the scholarly narratives you might find in peer-reviewed journals – they are more utilitarian. They’re designed to be easy to write and easy to use.
Of course, there are other places you can find open textbooks or Open Educational Resources (which includes things that are smaller than a single textbook that supports an entire course). Here are a few.

If you’d rather spend your time evaluating potential resources and not hunting for them, we can help with that. Librarians are able to gather potential titles and send them your way for review. We also might know about sources that are brand new (and not well indexed on the web) or that are in development. I’m on several listservs where librarians share this information all the time.
I hope your interest has been piqued and you’re asking “what can I do next?”

The fastest, easiest thing you can do is to search the Open Textbook Library for books that might fit with your courses. You already did this when you registered for today, but you might be inspired to go take another look now.

Next level: You can write a review of a book in the OTL. More details coming.

Go further: Please adopt or adapt an open book if it works for you. Even if now is not the right time to go “open,” you might be able to reduce course costs in other ways. One of the handouts lists strategies faculty here at Gettysburg are using to either eliminate or reduce book costs.

Finally, keep the conversation going. Ask who else in your department is using or considering open textbooks. Consider where converting might have the largest impact (both in terms of enrollment, dollars, and student good will). Ask colleagues in your field what they are doing. Some institutions and states are way ahead of us here.
Writing a review

Is there a textbook in the Open Textbook Library that fits your class?

$200 incentive will be paid for:

1. Attending today’s workshop, AND
2. Reviewing a textbook in the Open Textbook Library
Book review opportunity

1. You will receive an email with a link to the online review form.
3. The review will be posted on the Open Textbook Library site under an open license.
4. Incentive will be paid.

You will receive an email from someone at the Open Textbook Network in Minnesota – not me! – so look out for that and try not to assume it’s spam. I will provide the names and emails of everyone here today to OTN so they can coordinate the review process. They will send instructions and reminders. After the due date passes, they will let me know who completed the review so I can put the wheels in motion to pay the stipend.

The due date is 6 weeks out and falls after spring break.
Thanks again to the Johnson Center for Creative Teaching & Learning for sponsoring this session. This work is part of Affordable Learning Pennsylvania, a grant funded by LSTA (Library Services and Technology Act, a federal program) and the Office of Commonwealth Libraries.

Note my CC license for this presentation. 😊

See http://www.palci.org/alpa-about for more about Affordable Learning PA.
Faculty strategies to eliminate or reduce course costs
Strategies shared with library staff by Gettysburg College faculty during the fall 2018 Textbook Listening Tour

Getting to ZERO – strategies used by Gettysburg faculty to ELIMINATE course costs

Assign open materials. Open resources can be revised, remixed, reused, and redistributed while respecting copyright.

Assign library-licensed materials like ebooks and online journal articles.

Compile free readings, primary sources, or exercises that replace commercial materials (please be aware of copyright).

Consult with your librarian to identify open materials you can evaluate for course use.

Use Course Reserves to legally share material with students. Depending on copyright, materials might be shared via your Moodle site.

Purchase a textbook collection with department funds, and lend books to students each semester.

Increase affordability – strategies used by Gettysburg faculty to REDUCE course costs

Be aware of the total cost of assigned materials. Set a per-course cost target ($100 is a common figure).

Allow the use of older editions. Clearly communicate to students (and bookstore) which editions are acceptable.

Renting textbooks can reduce costs significantly in some cases. If print or digital rentals are sufficient for your course, let students know.

Become aware of which publishers release editions every year or two, and avoid them if possible.

Use Course Reserves when you can. Physical copies of books can help a few students.

Use the campus print shop to produce course packs. Duplication is permitted when materials are in the public domain or openly licensed.

Other best practices

Address book selection and costs with your students early. Email students prior to the first day of class about which books are required and where they can be purchased affordably.

Your syllabus:
- Include anticipated book prices
- Include information about buying versus renting specific books
- Note which titles are available via the library, either through Course Reserve or digitally (via multi-user ebook licenses)

Always report your book adoptions to the Gettysburg College Bookstore. Students who use financial aid to purchase books can obtain materials immediately.