CSUP OER Minigrant Awardees Basic Info Session

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What Are Open Educational Resources [OER]?

HB18-1331, **Higher Education Open Educational Resources**, passed by the Colorado General Assembly and signed by Governor Hickenlooper on 30 April 2018, defined OER here:

> (6) "OPEN EDUCATIONAL RESOURCES" MEANS HIGH-QUALITY TEACHING, LEARNING, AND RESEARCH RESOURCES THAT RESIDE IN THE PUBLIC DOMAIN OR HAVE BEEN RELEASED UNDER AN INTELLECTUAL PROPERTY LICENSE THAT PERMITS FREE USE OR REPURPOSING BY OTHERS AND MAY INCLUDE OTHER RESOURCES THAT ARE LEGALLY AVAILABLE AND AVAILABLE TO STUDENTS FOR FREE OR VERY LOW COST. OPEN EDUCATIONAL RESOURCES MAY INCLUDE FULL COURSES, COURSE MATERIALS, MODULES, TEXTBOOKS, FACULTY-CREATED CONTENT, STREAMING VIDEOS, EXAMS, SOFTWARE, AND OTHER TOOLS, MATERIALS, OR TECHNIQUES USED TO SUPPORT ACCESS TO KNOWLEDGE.[1]

[1] Closed based on the William and Flora Hewlett Foundation's definition: *"OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge."*

First Answer: Free Textbooks

A basic place to start with this is

> (6) "OPEN EDUCATIONAL RESOURCES" MEANS HIGH-QUALITY TEACHING, LEARNING, AND RESEARCH RESOURCES THAT RESIDE IN THE PUBLIC DOMAIN OR HAVE BEEN RELEASED UNDER AN INTELLECTUAL PROPERTY LICENSE THAT PERMITS **FREE** USE OR REPURPOSING BY OTHERS AND MAY INCLUDE OTHER RESOURCES THAT ARE LEGALLY AVAILABLE AND AVAILABLE TO STUDENTS FOR FREE OR VERY LOW COST. OPEN EDUCATIONAL RESOURCES MAY INCLUDE FULL COURSES, COURSE MATERIALS, MODULES, **TEXTBOOKS**, FACULTY-CREATED CONTENT, STREAMING VIDEOS, EXAMS, SOFTWARE, AND OTHER TOOLS, MATERIALS, OR TECHNIQUES USED TO SUPPORT ACCESS TO KNOWLEDGE.

So the term "**OER**" includes **free textbooks**.

Students tend to like this *a lot*, and it changes their behavior in many ways.

Second Answer: "Repurposing by Others"

But notice this also includes

> (6) "OPEN EDUCATIONAL RESOURCES" MEANS HIGH-QUALITY TEACHING, LEARNING, AND RESEARCH **RESOURCES THAT** RESIDE IN THE PUBLIC DOMAIN OR **HAVE BEEN RELEASED UNDER AN INTELLECTUAL PROPERTY LICENSE THAT PERMITS** FREE USE OR **REPURPOSING BY OTHERS** AND MAY INCLUDE OTHER RESOURCES THAT ARE LEGALLY AVAILABLE AND AVAILABLE TO STUDENTS FOR FREE OR VERY LOW COST. OPEN EDUCATIONAL RESOURCES MAY INCLUDE FULL COURSES, COURSE MATERIALS, MODULES, TEXTBOOKS, FACULTY-CREATED CONTENT, STREAMING VIDEOS, EXAMS, SOFTWARE, AND OTHER TOOLS, MATERIALS, OR TECHNIQUES USED TO SUPPORT ACCESS TO KNOWLEDGE.

So "**OER**" also includes resources which can be adapted, mixed with other OER, and then shared back to the global scholarly community.

Faculty tend to like this *a lot*, and it can change their behaviors in many ways.

“Open” vs “Free”

A better word than “open” in **OER** might therefore have been “**free**,” in both of the two common senses of that word in English:

“**free** as in **free beer**” and also “**free** as in **free speech**”

This linguistic issue has been around for a while. You might be familiar with “open-source software,” like **Android**, **Linux**, **Firefox**, **MediaWiki** [the engine that runs **Wikipedia**], **Apache** [the most widely used web server software in the world], *etc.* Such software was originally called “free software,” and even though it is free [as in free beer] it has enormous economic consequences and has made a lot of money for many businesses.

E.g., when I worked for IBM Research in the early 00s, my youthful radical background in FLOSS[2] was a business benefit, not problem.

[2] FLOSS = “Free/Libre/Open-Source Software” is the best term.

[Micro]Economic Issues for Students

The #RealCollege Survey found[3] in 2019 that for students in higher education in the United States

- 39% were food insecure in the 30 days before taking the survey,
- 46% were housing insecure in the last year, and
- 17% were homeless at some point in that year.

Now ask yourself: if you were a student in debt, [sometimes or often] hungry, and concerned about keeping a roof over your head ... where would your economic priorities be?

And for a faculty member who teaches a large class with 100 students, around 17 of them have recently been homeless; if the class 25 students, around four were homeless.

[3] *#RealCollege 2020: Five Years of Evidence on campus Basic Needs Insecurity*, Baker-Smith, Coca, Goldrick-Rab, Looker, Richardson, Wilson, 2020, on the web here.

[Macro]Economic Issues for Students 1

The easiest single indicator of exploding prices for students is:

total student debt in the U.S. is around $1.64 trillion.[4]

Some examples in Colorado:

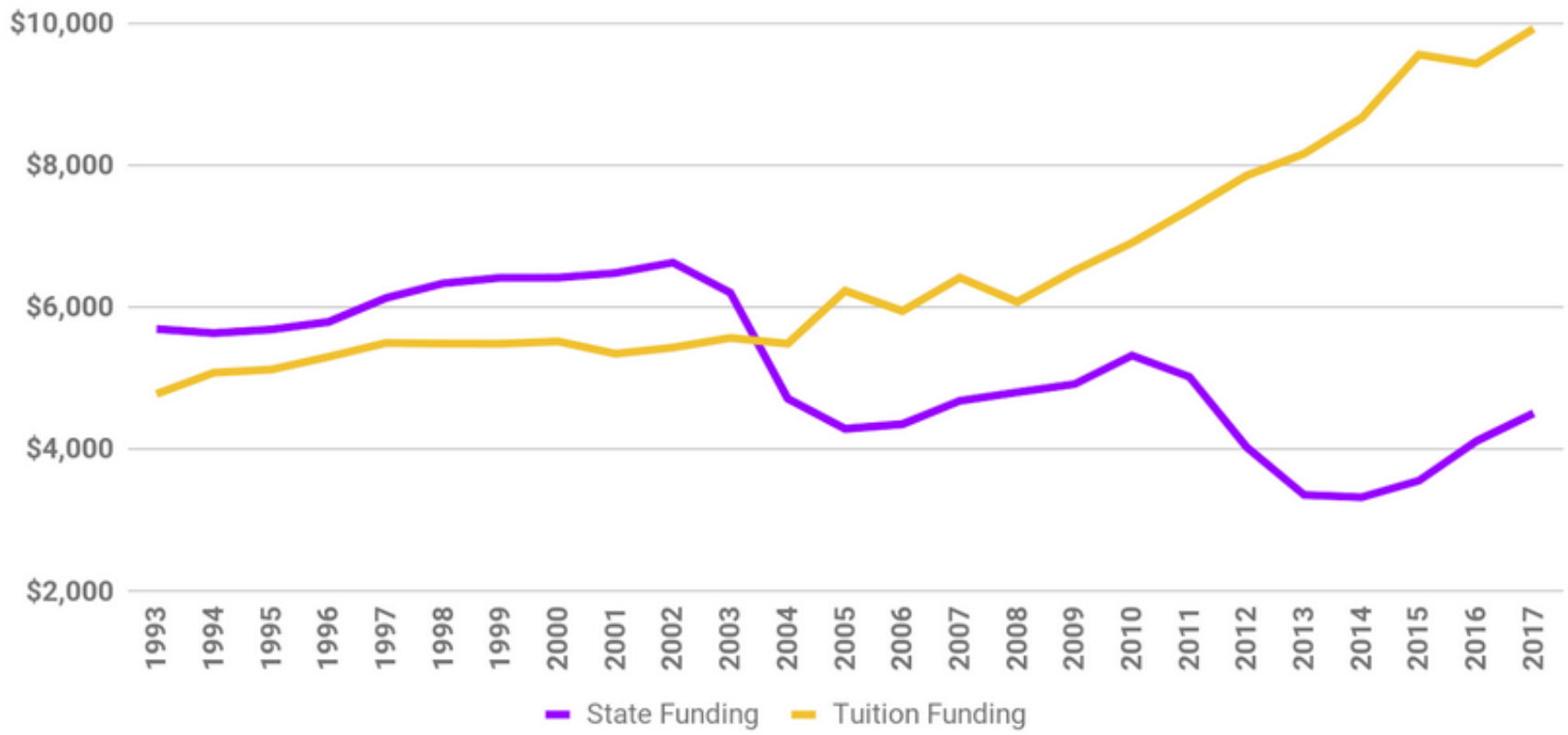
Institution	Median Debt, 2015 Grads
CSU Pueblo	$29,914
Front Range Community College	$13,500
Colorado College	$19,756
University of Denver	$29,050
All private[non-profit] and public 4-years in CO	$25,064
Aggregate Colorado Community College System	$11,730

Sources: https://ticas.org/posd/state-state-data-2015# and https://www.communitycollegereview.com/

[4] Source: https://www.federalreserve.gov/releases/g19/current/default.htm; a preliminary report out 12 July 2020 puts the number at $1.74 trillion.

[Macro]Economic Issues for Students 2

In the US, the root cause of part of student economic difficulties is the end of "public" higher education: [data from State Higher Education Executive Officers Association]



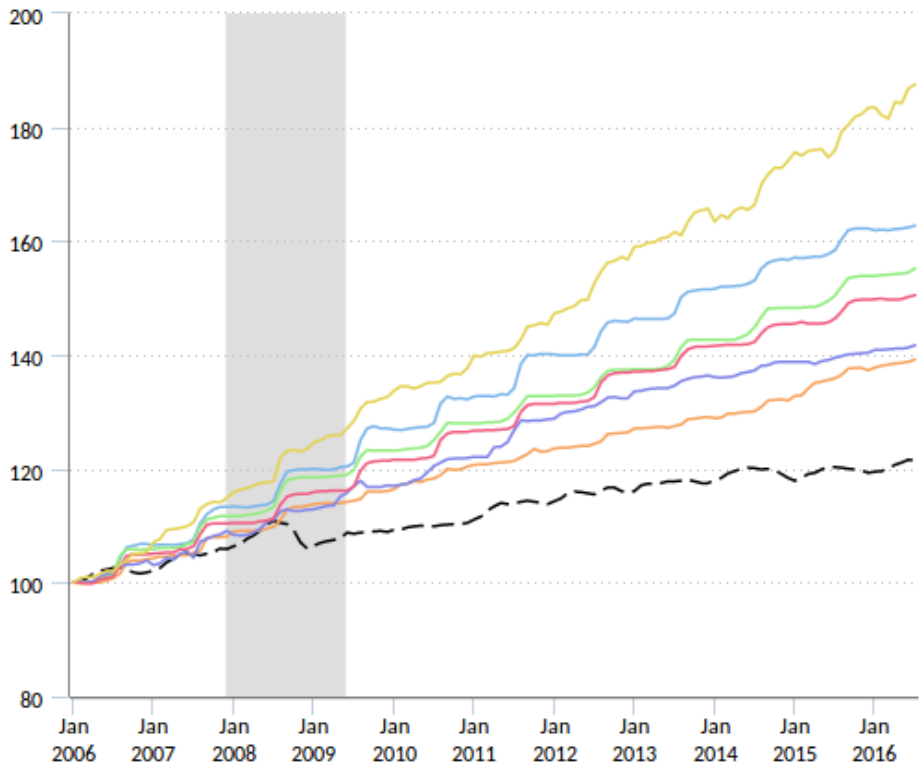
"...like marshmallows."

As I said in a piece, I wrote in Inside Higher Ed on 27 February 2019:

> *"Total student debt in the United States stands at approximately $1.5 trillion - yes, trillion, with a T. It increased by approximately $37 billion in the third quarter of 2018: that's a quarterly increase by about the endowment of Harvard University or, annualized, by more than the GDP of three-quarters of the nations on Earth.*
>
> *Public institutions of higher education in a majority of U.S. states are funded more often much more by tuition than by state support, calling into question the adjective public in that traditional terminology.*
>
> *... It's not so much that as a society we are eating our seed corn with this treatment of the next generation, it is more that we have set the global climate on fire, skewered our children on pointy sticks and are roasting them like marshmallows."*

Students Pay Many Different Costs...

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



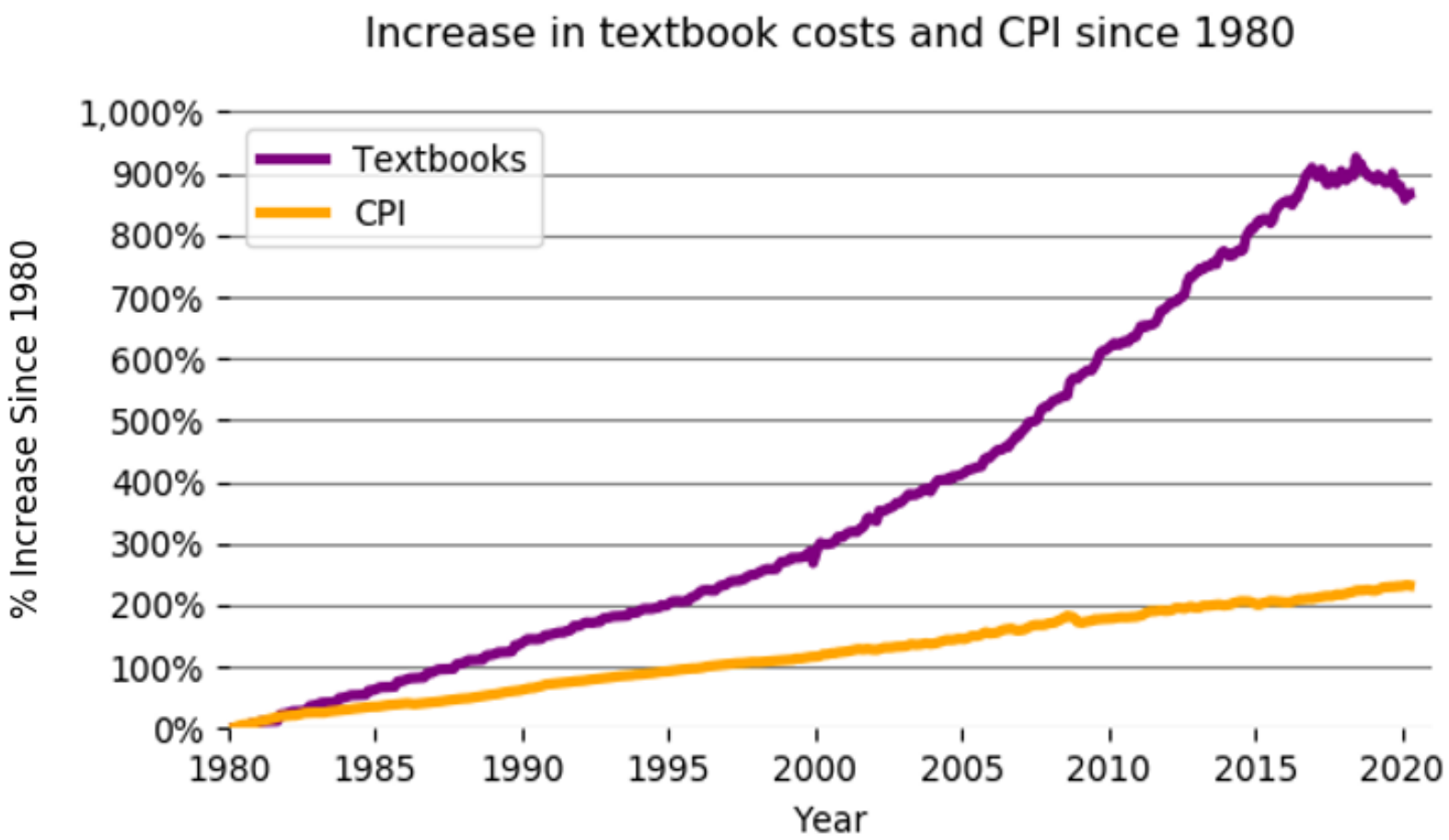
January 2006 = 100

Source: *U.S. Bureau of Labor Statistics*

https://www.bls.gov/opub/ted/2016/college-tuition-and-fees-increase-63-percent-since-january-2006.htm

...But the Winner[5] Is: Textbook Cost

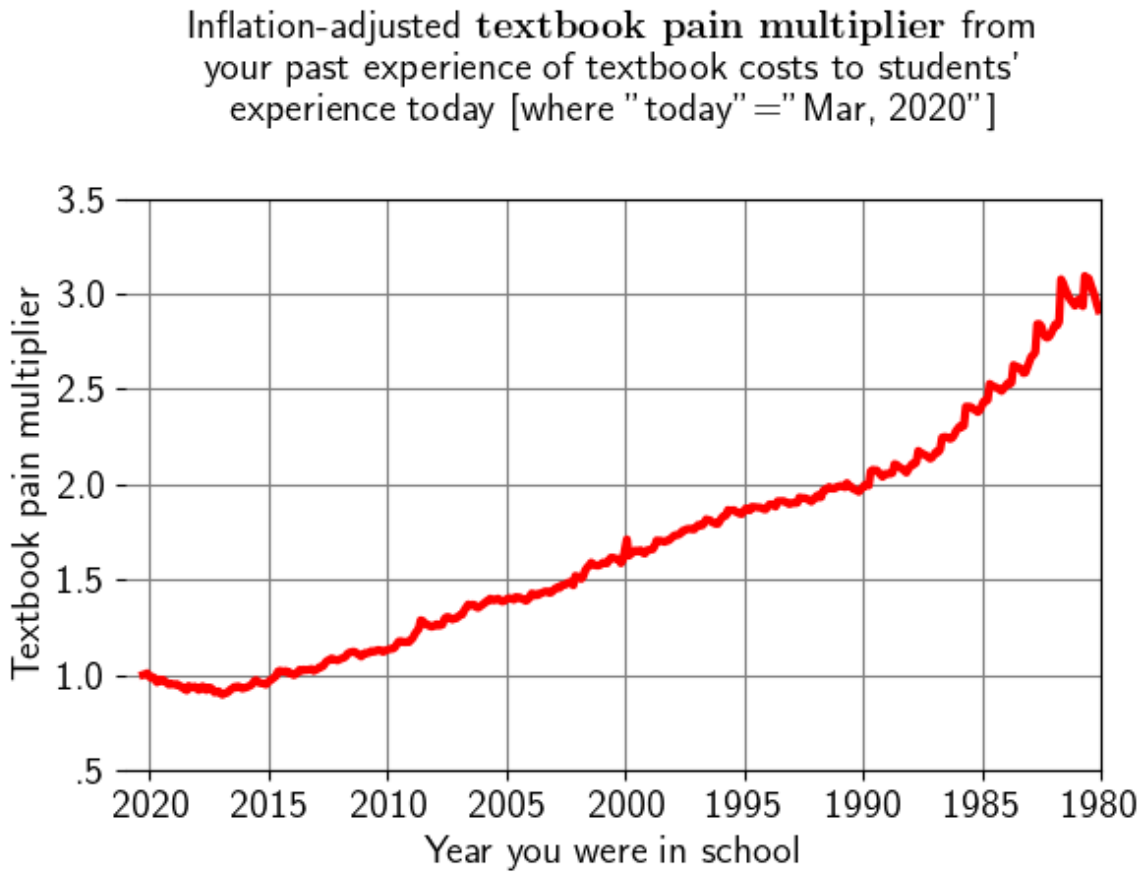
Increase in textbook costs since 1980



Source: *U.S. Bureau of Labor Statistics*

Your Intuition for Textbook Costs is Wrong

One attempt to correct our intuition for these different rates of inflation:



Source: https://mathematikoi.net/

Consequences for Students

Studies[6] have shown that, as a result of these economic realities, students

- make decisions about which courses to take based on the costs of the textbooks;
- take fewer courses because of expensive textbooks;
- do not buy even required textbooks, because of cost, and therefore learn less, do more poorly, and drop out more frequently; and
- take longer to complete degrees because of the obstacle of textbook cost.

A particularly exciting recent study[7] found that **DFW rates went down by one-third among minority and Pell-eligible students in gateway courses which switched from commercial textbooks to OER**.

[6] See references in *Report to the Joint Budget Committee and The Education Committees of the General Assembly – Open Educational Resources in Colorado*, Brown-Sica *et al.*, 2017, on the web here.

[7] *The Impact of Open Educational Resources on Various Student Success Metrics*, Colvard, Watson, and Park, **International Journal of Teaching and Learning in Higher Education** (2018), on the web here.

Scholarly Production Wants to Be Free

Faculty are not used to thinking of the economic consequences of their choices, nor of their work as being in a marketplace[8].

We are used to signing over our copyrights on research papers to the journal publishers, who in turn make large profits on subscriptions which they in no way pass on to the article authors.

Scholars do tend to keep the copyrights on their monographs and textbooks, although usually tied up in restrictive contracts.

It is as rare as winning the lottery (or getting struck by lightning) that a book will sell enough to make some serious money for the author.

Scholars mostly seek **impact**, which comes when others use a work in new ways – clearly without first asking permission. We **hope** someone else will take our ideas, with attribution!, and do something amazing.

In this sense, scholarly production wants to be free, as in speech.

[8] other than "the marketplace of ideas"

Freedom Includes the Right to Seek a Profit, or Not

If a professor wants to assign an expensive textbook in a class (and has a good reason to do so) or wants to publish a textbook commercially with the hope of writing the runaway bestseller on economic history, then by academic freedom and scholarly tradition, we should not stand in the way.

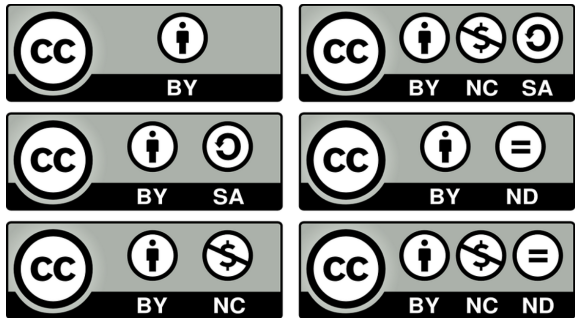
But usually, many faculty will be happy to contribute their textbooks, problem banks, software, and other writings to a global intellectual commons, a *Creative Commons*.

If there were a way to dedicate a creative work to this commons, rather than having it automatically fall into the domain of *all rights reserved* copyrights – as any work of original expression does as soon as it is fixed in a tangible medium[9] – many scholars would likely do so.

[9] this is the trigger which causes a copyright to spring into existence: no registration or formalities is actually required.

Creative Commons Licenses

The way to bend copyright law to the purposes of the scholarly life is to release works with a Creative Commons Licenses:[10]



Educational resources release with a CC license – well, **not** those two licenses with "ND" – are open to REPURPOSING BY OTHERS, in the words of HB18-1331, and therefore are **Open Educational Resources** [**OER**].

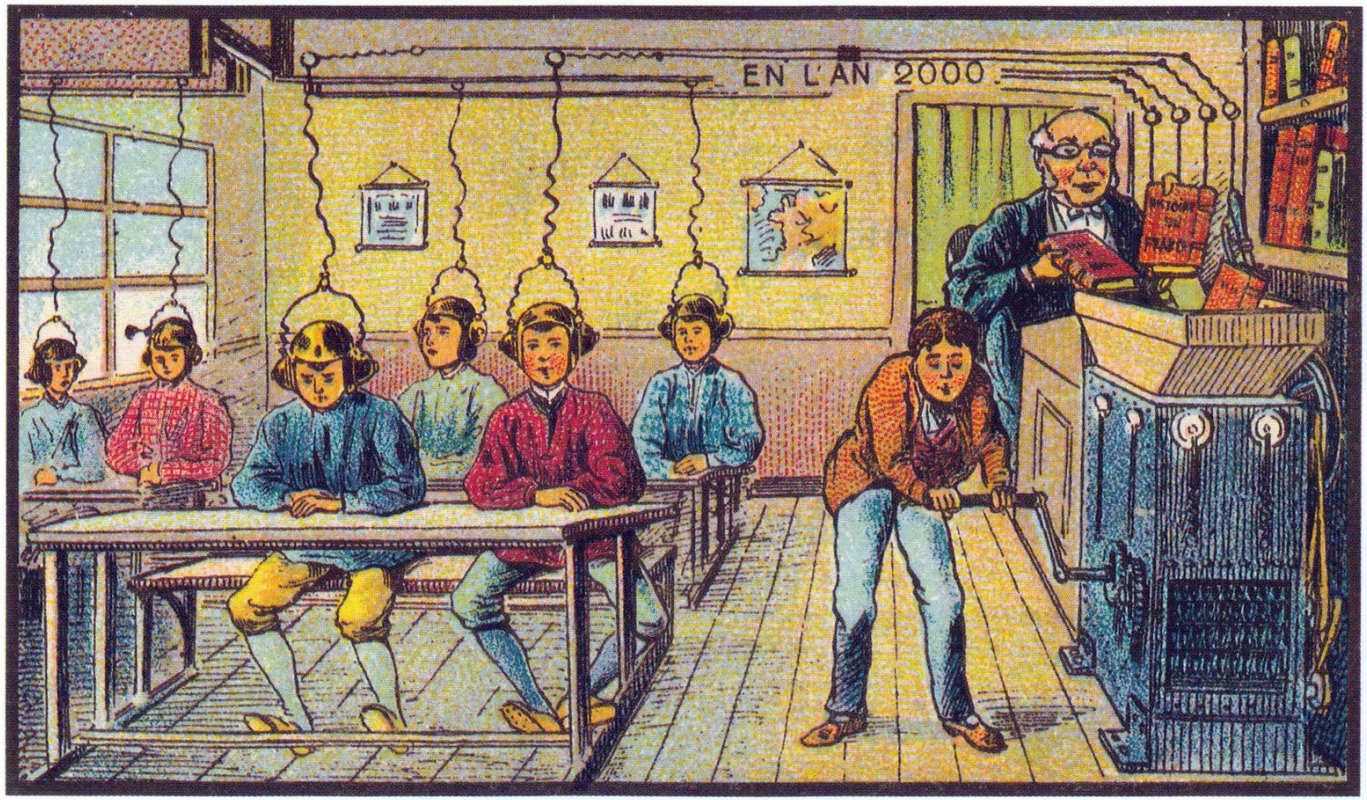
OER can be customized, localized, adapted to a faculty member's own way of teaching, unlike [commercial] textbooks under traditional copyright.

Only OER truly respect an instructor's academic freedom!

[10] see https://creativecommons.org

The *e-banking model* of education

Paulo Freire criticized what he called the *banking model* of education, where teachers are thought to *deposit* knowledge into students' minds.



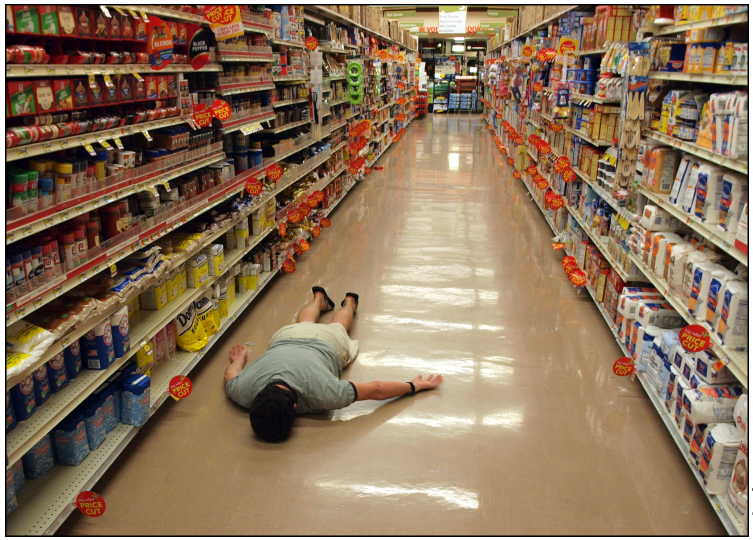
At School

Jean Marc Cote publicdomainreview.org/2012/06/30/france-in-the-year-2000-1899-1910/ [Public domain], via Wikimedia Commons, commons.wikimedia.org/wiki/File:France_in_XXI_Century._School.jpg

“Drill-and-kill classes”

Education which does not center on the autonomy and agency of student and instructor, like *drill-and-kill classes* is only a tool to turn us all into better – more docile – factory robots and consumers.

 [11]

 [12]

[11] Publicity photo of Charlie Chaplin for the film *Modern Times* (1936); [Public domain in the United State (maybe not in other jurisdictions!) since it was published between 1924 and 1977 without a copyright notice], via Wikimedia Commons, commons.wikimedia.org/wiki/File:Chaplin_-_Modern_Times.jpg

[12] *Planking in the supermarket* by TheeErin from www.flickr.com/photos/27073477@N00/4112368718, released under a CC-BY-SA 2.0 license. Please hear *Lost in the Supermarket* by **The Clash** in your head while considering this image.

bell hooks and Paulo Freire

> *"The classroom, with all its limitations, remains a location of possibility. In that field of possibility we have the opportunity to labor for freedom, to demand of ourselves and our comrades, an openness of mind and heart that allows us to face reality even as we collectively imagine ways to move beyond boundaries, to transgress. This is education as the practice of freedom*[13]*."*
>
> emphasis added, **Teaching to Transgress**, bell hooks, 1994, p.207

But notice that

faculty autonomy and agency	=	pedagogical academic freedom

[13] hooks likely was nodding here at Freire's first book, **Education as the Practice of Freedom**.

The **5Rs** as pedagogical academic freedom codified

If you stop to write down in detail the specifics of pedagogical academic freedom, it's not hard to end up at David Wiley's **5Rs**[14], the rights

- **Retain** - to make, own, and control copies of the content
- **Reuse** - to use the content in a wide range of ways
- **Revise** - to adapt, adjust, modify, or alter the content itself
- **Remix** - to combine the original or revised content with other open content to create something new
- **Redistribute** - to share copies of the original content, your revisions, or your remixes with others

[14] For which, see his 5Rs of Open and The Access Compromise and the 5th R, both released under CC BY 4.0

Briefly, **after covid-19**

Students are now under far, far higher financial pressures. To the extent that they are able to continue in school, they will have far less money available to purchase expensive textbooks.

Additionally, many of the coping mechanisms we know they use – sharing a book is very common, getting a book from the library when they are on campus, *etc.* – are now impossible.

I hypothesize that a large but hard to measure part of the fall in academic success which probably happened this spring semester is due to the fact that all of those students could no longer come to campus to get access to course textbooks in the above ways... so they were put under all of the current stresses while trying to continue their courses (those who did try) *but without their course textbook(s)!*

OER *vs* ZTC

I hope you've been persuaded by the economic arguments. You might then ask if the only important thing about OER is their cost – typically, **$0**.

If cost were the primary driver in this movement, then we should probably be talking about "**Zero Textbook Cost** [**ZTC**] courses," rather than "courses which use OER." ZTC courses can use expensive (to the library) materials which are free (to the students).

This can be a particularly attractive perspective for funding entities such as legislatures, because they are often concentrated on the *return on investment* for their dollars spent, which is measured by total amount students save – *i.e.*, it only cares about cost.

Open Pedagogy, or OER-Enabled Pedagogy, or...

On the other hand, the pedagogical academic freedom which OER provides has lead to various approaches to pedagogy which are called *open pedagogy*, *OER-enable pedagogy*, *critical digital pedagogy*, *etc.* Some of the brilliant folks working in this area include Maha Bali, Robin DeRosa, Rajiv Jhangiani, Sean Michael Morris, and Jesse Stommel; see also The Open Pedagogy Notebook. *E.g.,* some of these authors talk about

disposable assignments: assignments that support an individual student's learning but add no other value to the world *and*

renewable assignments: assignments that both support individual student learning and add value to the broader world. With renewable assignments, learners are asked to create and openly license valuable artifacts that, in addition to supporting their own learning, will be useful to other learners both inside and outside the classroom.

[Although I confess I'm not sure I dislike "disposable assignments" as much as the name implies I should....]

Open Pedagogy's **5Rs**

Rajiv Jhangiani's blog post 5Rs for Open Pedagogy[15] gives a new set of **Rs** expressing the ideals that underpin his view of open pedagogy:

- **Respect** for the agency of students and creators including whether they wish to perform public scholarship or not
- **Reciprocate** by not just drawing on but also contributing back to the commons, by sharing resources, practices, and ideas
- **Risk** is ever present with open pedagogy
- **Reach** involves having an impact that extends well beyond the classroom, a course, or a semester's objectives.
- **Resist** against forces that conspire to pit increasingly precarious faculty against increasingly precarious students. Resist against the commodification of learning. Resist against the neoliberal university.

[15] which he released under a Creative Commons Attribution-ShareAlike 4.0 International License

Takeaways

- Grim, soulless neoliberalism has turned higher education from a public to a private good, resulting in a sky-rocketing cost to students.
- Students are in debt, and many are hungry and housing-insecure.
- Textbooks costs are rising **much faster** than essentially all other consumer goods, because of a broken feedback loop in this market.
- As a result, students are learning less, doing less well, dropping out more, and taking longer to finish degrees.
- Switching to OER has large, immediate gains for student success, particular among underrepresented groups.
- Only OER give instructors real academic freedom.
- Only OER give teachers and learners a chance at autonomy and agency.

CSUP Specifics: Choose a License!

Conditions of our grant from the state of Colorado:

- The work you do must be licensed with one of the CC licenses that does not include the "ND" clause – an "OER license." [We can help you choose.]
- Additionally, your work will need (eventually) to be posted in some public-facing place on the web. [We can help with this; maybe you want to consider **Pressbooks**?]
- You will be requested to do some data collection on the efficacy in the classroom of your resource. [We can help with this.]
- You will have to do a accessibility check for the resource you adapt or create. [We can help with this.]

CSUP Specifics: How We Can Help You

You will have me [Jonathan Poritz] nearly full-time and members of the PueblOER Committee [Rhonda Gonzales, Lona Oerther, Margie Massey, Adam Pocius, Denise Henry] and other members of the Library [incl. Alexis Wolstein] part time, to support you.

We can help you by:

- Finding resources you can adapt/incorporate – CC-licensed, so this is easy and fun!
- Finding or making smaller artifacts like images or diagrams.
- Help you with platforms such as PressBooks.
- Give you a sample student survey.
- Give you an ADA checklist (and help you fix issues it finds).
- Typesetting, format-shifting, copy editing, finding peer reviewers....
- Publicizing your excellent work.

CSUP Specifics: Supplemental Contracts

We will pay you half of the amount we promised immediately and the other half at the end of your timeline.

[This is not meant to be punitive or judgemental, it's just apparently the way things like this are done here.]

For this, I will need to talk through the following things in a 1:1 meeting:

- a timeline of your project
- some sort of description of a "work product" that can go into the supplemental contract; a few sentences are all I will need.

For this, it wouldn't be bad thing if you thought ahead of time what that timeline and description could say. You could also think about, and we can discuss in our 1:1 meeting,

- which of the types of assistence mentioned above would be useful to you.

CSUP Specifics: Searching for Existing Resources

The downside to OER is that they are spread out across the Internet in many places ... which can make it hard to find. Here are the first places I tend to look, though:

- the OpenStax repository of excellent, complete, traditional-looking OER: openstax.org/
- the Open Textbook Library, another excellent repository of OER: open.umn.edu/opentextbooks
- OASIS, a search site for OER: oasis.geneseo.edu/
- OER Commons, anoter search site for OER (not quite as easy to use): oercommons.org/
- many other... ask us for help!

CSUP Specifics: Pressbooks

Presentation to continue away from this slide deck.

But also see resources such as:

- The (Growing) Guide to Using Pressbooks: guide.pressbooks.com/
- Many, many videos on YouTube, just search for "introduction to pressbooks". Here's a good one (as are all of the presentations by Steel Wagstaff): Getting Started with PressbooksEDU Webinar

Questions, Comments, and Contact Info

Questions? Comments?

Email: jonathan.poritz@gmail.com ; Tweety-bird: @poritzj .

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[16] subject to CC-BY-SA