CCHE Presentation:

Open Educational Resources in Colorado

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December 6, 2018

COLORADO
Department of Higher Education

Agenda

1. Introductions
2. The What and Why of OER
3. Work and Report from 2017
4. Legislation from 2018
5. Grant program and scope of work for the Council
6. What comes next?

The What & Why of OER



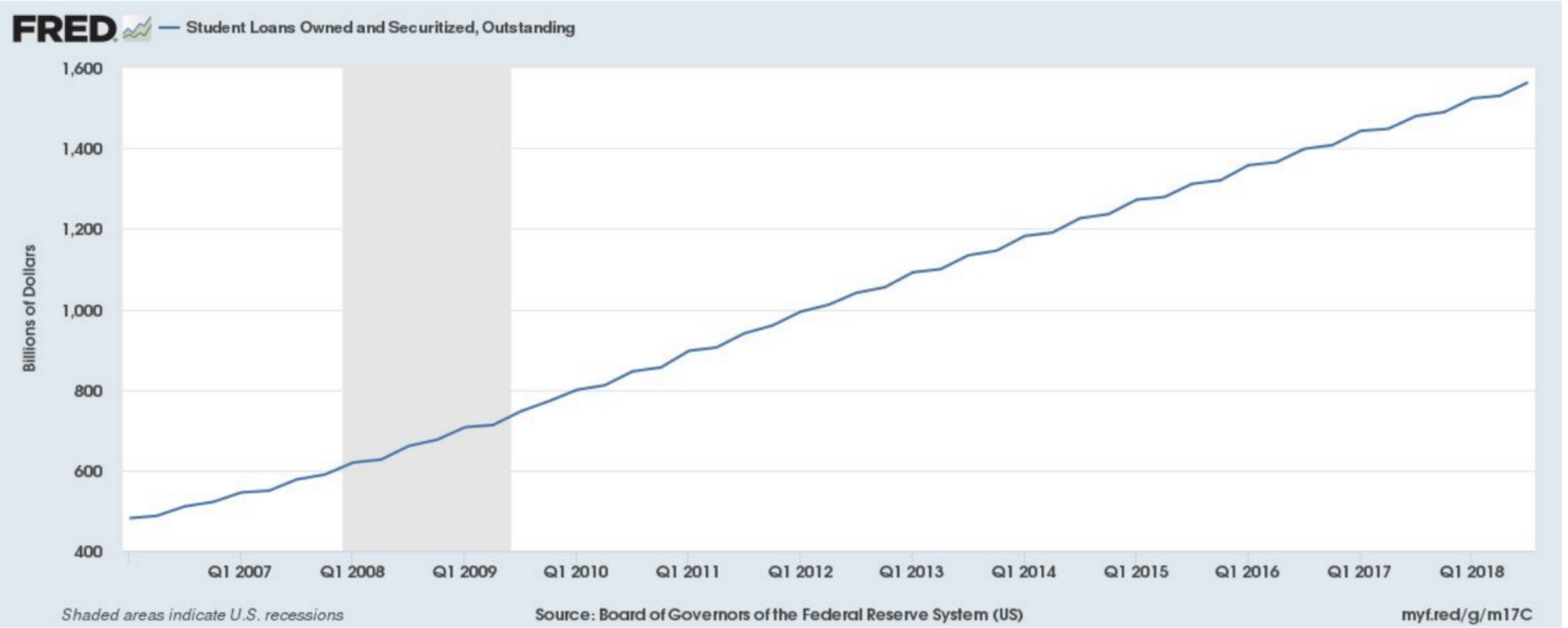
OPEN EDUCATIONAL RESOURCES

STATE OF COLORADO
NIL SINE NUMINE
1876

Let's start with Why

Some depressing macroeconomic indicators:

1) Student debt, nationally: yes, that's closing in on $1.6trillion



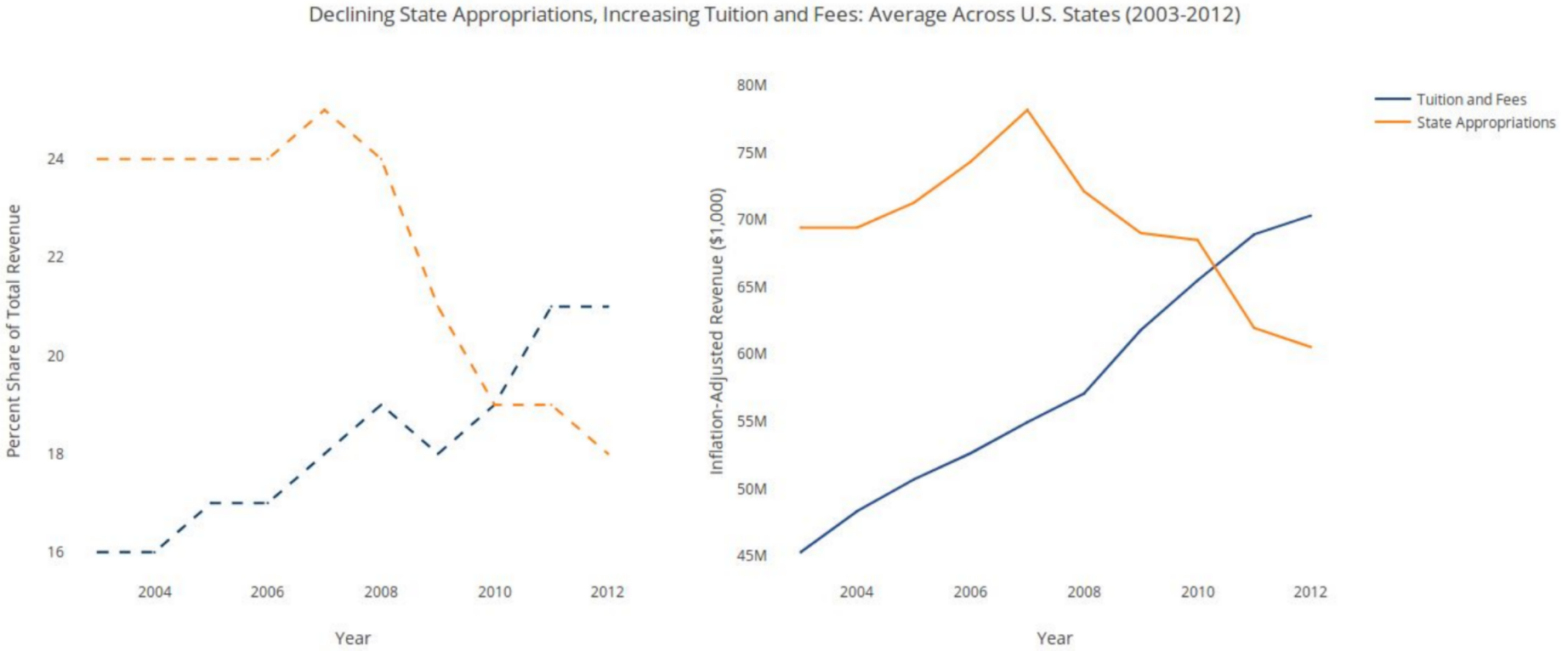
Student debt in Colorado

Some institutions in Colorado, public and private, 2- and 4-year:

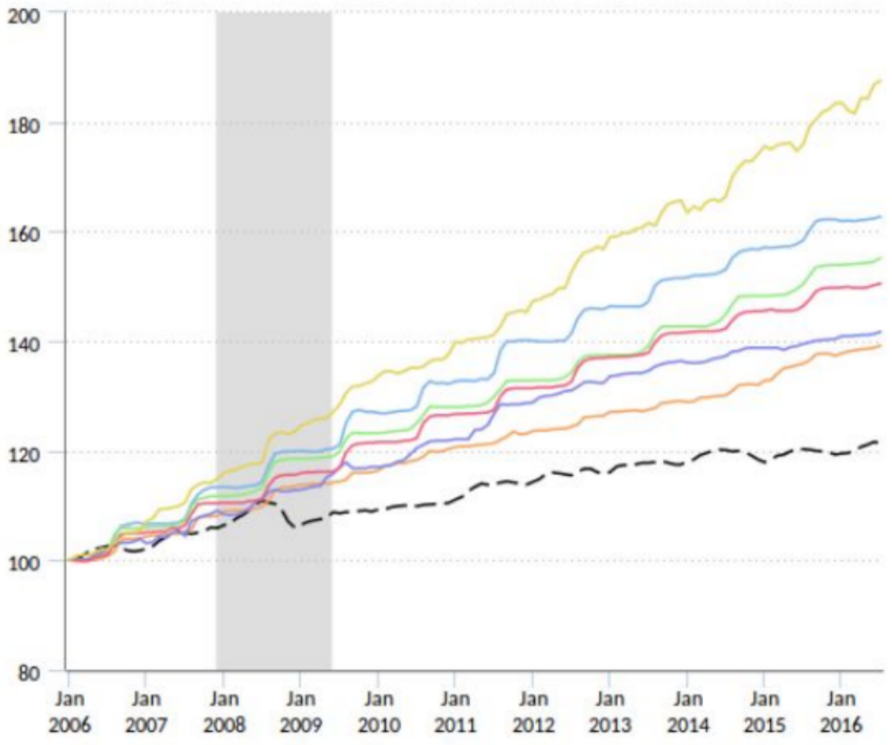
Institution	Average Debt, 2017 Graduates
CSU-Pueblo	$29,914 [2014 grads]
CSU-Ft Collins	$26,348
CCCS	$13,000 [median, not average; approx.]
MSU Denver	$25,805
Colorado College	$20,742
University of Denver	$31,526
→ all public and [non-profit] private 4-years	$28,650

Whence this student debt?

The obvious explanation: change of funding of higher ed from state to student.



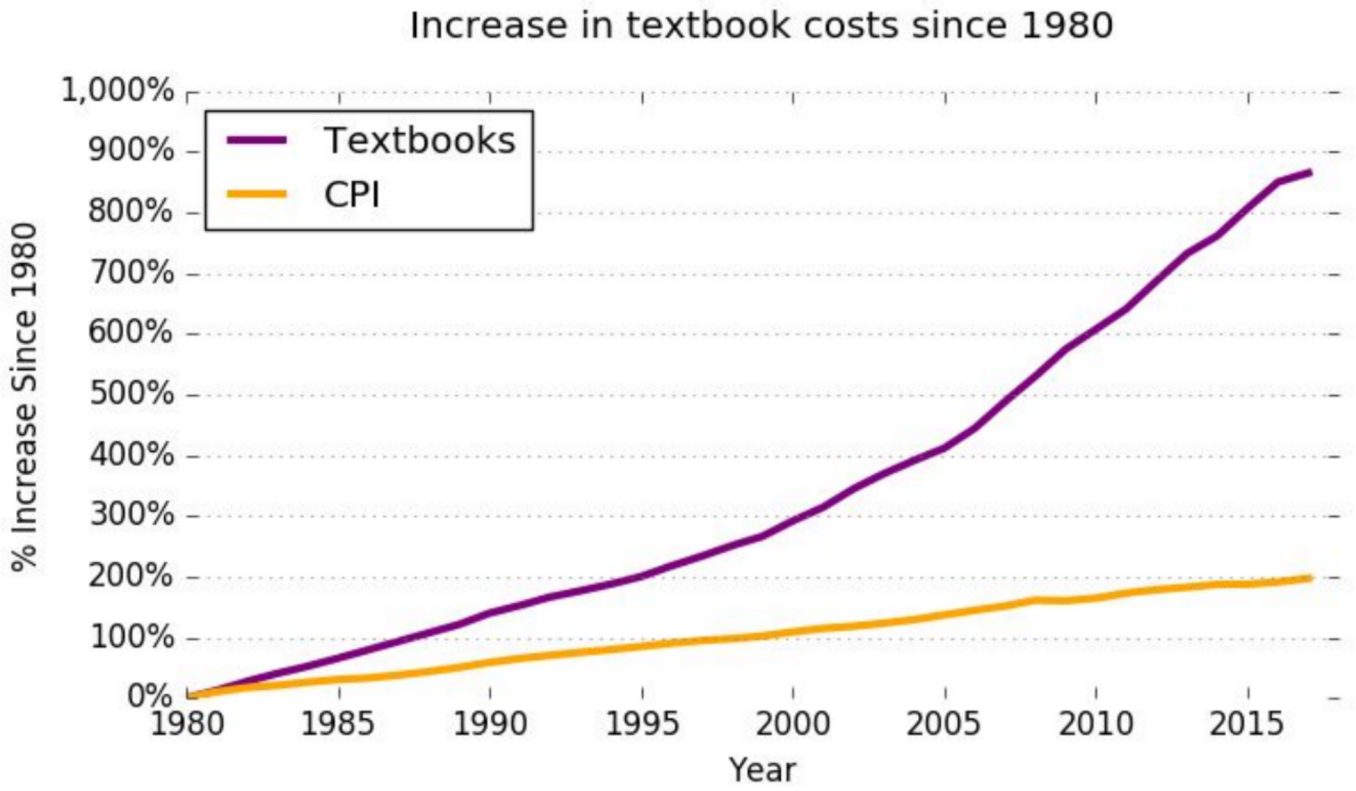
Students have many expenses



January 2006 = 100

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

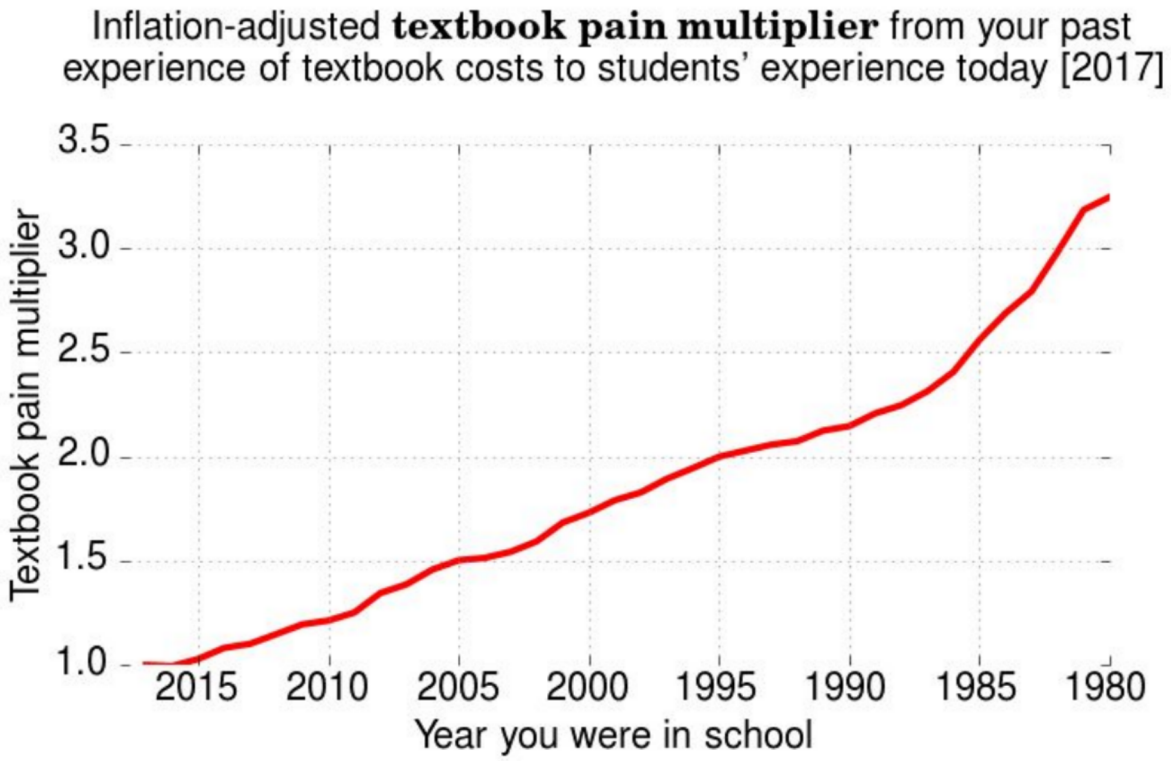
But the winner is: Textbook Cost[1]



[1] "Winner" in terms of rate of growth, not absolute size.

Our intuition for textbook costs is wrong

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



Why do textbooks cost so much?

A broken market mechanism: faculty choose, the students pay. Publishers understand this.



Consequences for students

Studies have shown that, because of these economic realities, students

- make decisions about which courses to take based on textbook cost, and take fewer courses because of expensive textbooks
  - fewer students, & more slowly, complete degrees, particularly in STEM [MPSG1]

and

- do not buy even required textbooks because of their cost
  - therefore students learn less and do more poorly [MPSG3]

A recent study found that DFW rates [students getting a D or F or withdrawing from the class] went down by one third among minority and Pell-eligible students in gateway courses which moved from commercial textbooks to OER [MPSG2]

All of the Master Plan Strategic Goals are therefore in play in this area of textbooks, particularly as OER are an innovation helping affordability [MPSG4]

Those were Master Plan Strategic Goals



Strategic Goal #1 Increase Credential Completion

Significantly increase the number of credentials that students earn over an eight-year period and increase credential completion for high-demand areas of STEM-educated workers and a growing shortage of educators.

Strategic Goal #2 Erase Equity Gaps

Success in meeting the statewide goal of 66% hinges on improving all students completion in colleges, universities and other pathways in the state.

Strategic Goal #3 Improve Student Success

Promote students' timely completion through new approaches and practices.

Strategic Goal #4 Invest in Affordability and Innovation

Increase public investment and encourage models that reduce costs and time-to-degree.

The Colorado Goal: 66% Attainment by 2025

Now the What of those “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 as

> (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

This definition is quite similar to one used widely in the OER community, originally due to the William and Flora Hewlett Foundation (a significant supporter of research into OER and open education more generally.

How does this relate to the Why?

Just look carefully:

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

Free textbooks certainly negate that otherwise fastest-rising portion of student expenses. Moreover, they are a way that individual institutions (by supporting OER programs) and even individual faculty (by doing the large amount of work to adopt, adapt, or create OER) can make a big difference for students.

And how can this be possible?

Look carefully, again:

(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

They are called Creative Commons Licenses and come with icons like 

There were more than 1.4 billion works under CC licenses at the start of 2018.
It may sound weirdly anti-capitalist to abjure profits with a CC license, but that is really the essence of the academic worldview, and has been since the ancient Greeks.

And Where can we find OER?

To reap the benefits of OER, institutions and faculty need either to create their own (under a CC license) or adapt or adopt an existing OER. They can be found on a lot of random individuals' web pages, e.g.,

http://www.introtoie.com/

or (thousands? of) others, in small disciplinary collections, e.g.,

https://aimath.org/textbooks/

in a few well-known OER repositories like

https://openstax.org/ and
https://open.umn.edu/opentextbooks/

or in a few well-known indices/search tools, e.g.,

https://www.oercommons.org/ or
https://www.merlot.org/merlot/index.htm

In short, OER are not hard to find [particularly if you ask for help from a librarian].

A quick return to macroconomics

Why should a program of creating, adopting, and adapting free textbooks need any financial support?
The current culture of using expensive commercial textbooks is so dominant that is can be hard even to notice it, like the air we breathe.
Small financial incentives can help break that hold.
Also, it is a lot of work to redesign a course to use an OER, more to adapt one to your newly redesigned class, and much more to create an entire new OER.

The good news is that state funds supporting OER have had an incredible return around the US. In OR, every $1 spent saved the student body $4; in ND, the ROI was even higher: more than 9 to 1!

Investing in OER is one of the most effective and also financially efficient way of supporting our students.

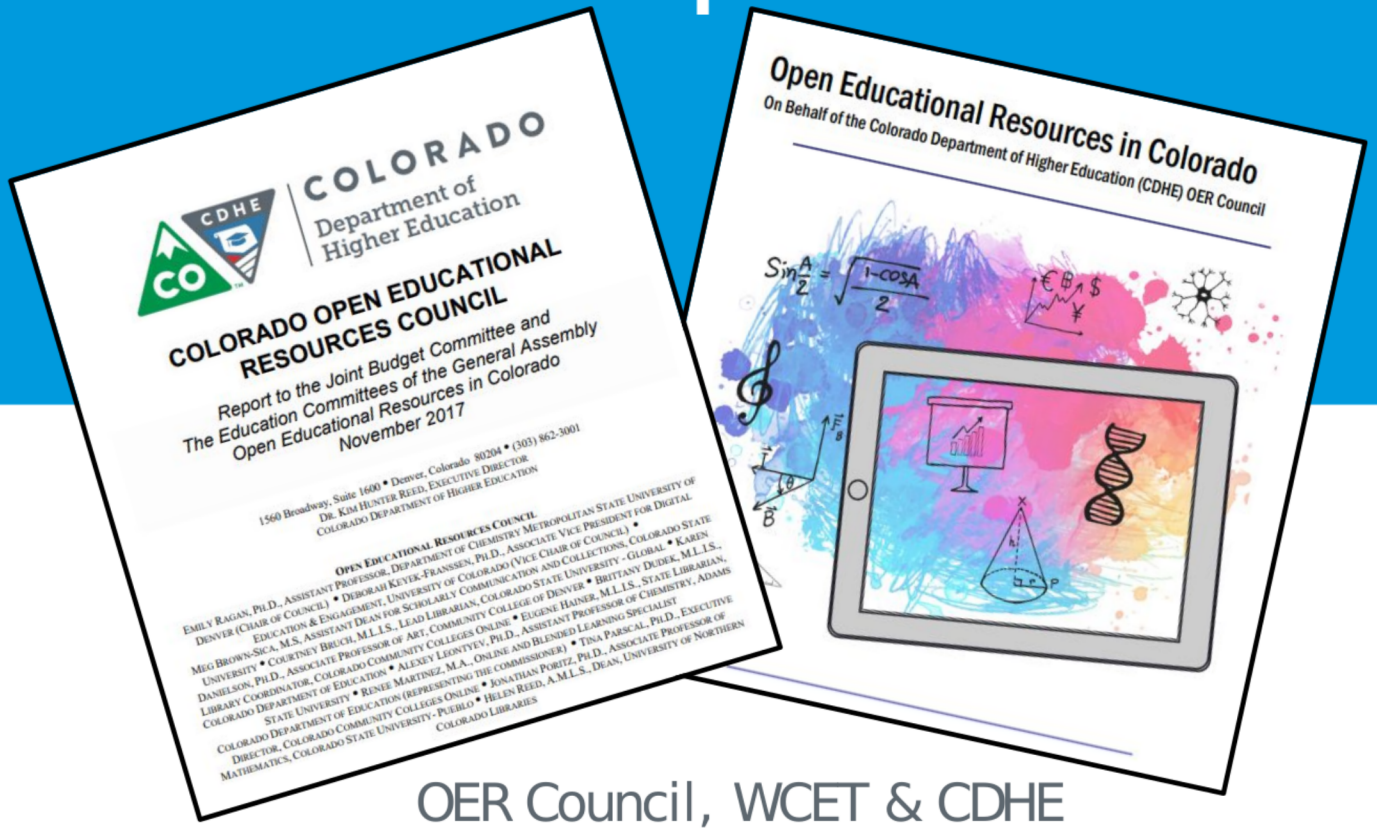
Others have noticed this RoI

Many states have extensive OER support programs:

- NY: SUNY has a system office, FY18 saw $8million for OER
- OR: OpenOregon saw an FY18 reduction by ⅓ of $1million (for 2 years)
- LA: LOUIS (FY17 budget of $4.46million) provides extensive support for OER
- FL: FY19 has $150,000 for OER
- ND: spent $110,000 and students saved $1million to $2.4million
- TX: $200,000 max per biennium, mandates course listings showing OER
- etc.; see OER State Legislative Guide from Creative Commons for more info

Federal Government has gotten involved:
The Open Textbook Pilot, which put $5 million for OER in the federal FY18 budgets, was authored by Senators R Durbin, A King, and T Smith and Members of Congress J Polis and K Sinema (and was awarded to one group in CA)

Work and Report from 2017



OER Council, WCET & CDHE

Highlights from 2017 Statewide Survey

- Nearly 90 percent of respondents who took the Solicitation of Individual Input Survey reported that they agreed with the statement "Textbook costs have become a serious affordability barrier to students attending Colorado's colleges and universities."
- Of the 27 public institutions that returned surveys, 26 indicated that reducing the cost students pay for higher education is a "major" or "moderate" concern to the institution's board, president and senior administrators.
- Comments from participants agree that lowering the cost of education is beneficial to both individual students and Colorado society as a whole.

90%

"…agree textbook costs have become a serious affordability barrier to students…"

OER in Action

AY18 OER Enrollment: 14,740 students

AY18 OER Courses: 62

AY18 Student Savings: ~$777,000

CCCOnline

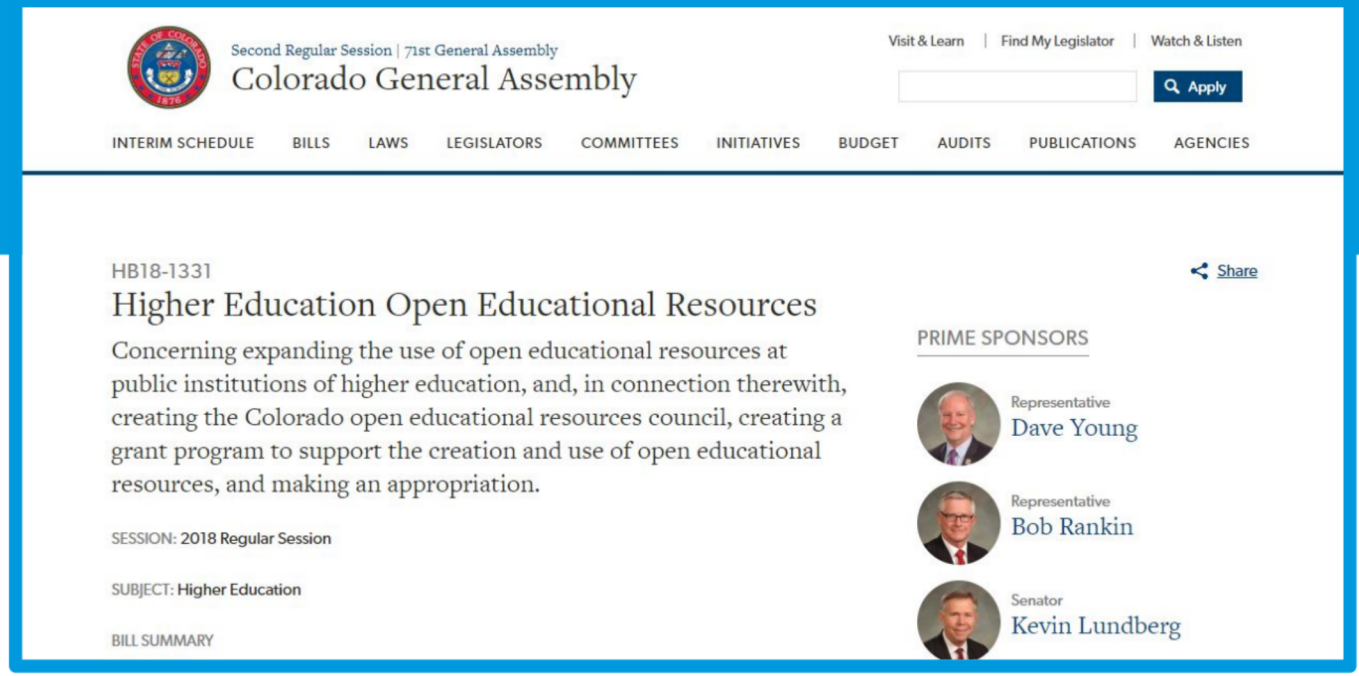
Future OER Plans

Fall 2019: Launch Associates in Arts - Early Childhood Education Zero-Textbook Cost Degree

AY19: 72 Courses

CCCOnline

2018 Legislation: HB 18-1331



Second Regular Session | 71st General Assembly
Colorado General Assembly

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Apply

INTERIM SCHEDULE BILLS LAWS LEGISLATORS COMMITTEES INITIATIVES BUDGET AUDITS PUBLICATIONS AGENCIES

HB18-1331

Share

Higher Education Open Educational Resources

Concerning expanding the use of open educational resources at public institutions of higher education, and, in connection therewith, creating the Colorado open educational resources council, creating a grant program to support the creation and use of open educational resources, and making an appropriation.

SESSION: 2018 Regular Session

SUBJECT: Higher Education

BILL SUMMARY

PRIME SPONSORS

Representative
Dave Young

Representative
Bob Rankin

Senator
Kevin Lundberg

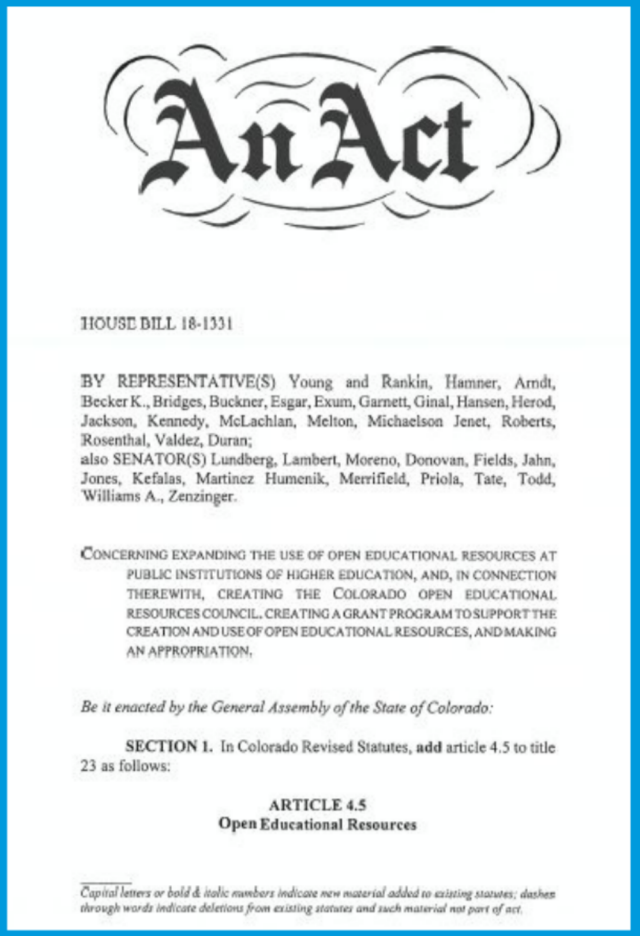
Outputs from bill

-To implement the open educational resources grant program created in section 23-4.5-104 and ensure that faculty and students at public institutions of higher education across the State can easily identify and access the open educational resources developed using grant money;

-To recommend to the commission statewide policies for promoting adaptation, creation, and use of open educational resources at public institutions of higher education across the State;

-To facilitate professional development and the sharing of knowledge concerning creating and using open educational Resources for public institutions of higher education, faculty, Staff, and students.

-Creating and maintaining a website to link to the materials that the council develops, other open educational resources, and any existing institutional open educational resources databases



An Act

HOUSE BILL 18-1331

BY REPRESENTATIVE(S) Young and Rankin, Hamner, Arndt, Becker K., Bridges, Buckner, Esgar, Exum, Garnett, Ginal, Hansen, Herod, Jackson, Kennedy, McLachlan, Melton, Michaelson Jenet, Roberts, Rosenthal, Valdez, Duran;
also SENATOR(S) Lundberg, Lambert, Moreno, Donovan, Fields, Jahn, Jones, Kefalas, Martinez Humenik, Merrifield, Priola, Tate, Todd, Williams A., Zenzinger.

CONCERNING EXPANDING THE USE OF OPEN EDUCATIONAL RESOURCES AT PUBLIC INSTITUTIONS OF HIGHER EDUCATION, AND, IN CONNECTION THEREWITH, CREATING THE COLORADO OPEN EDUCATIONAL RESOURCES COUNCIL, CREATING A GRANT PROGRAM TO SUPPORT THE CREATION AND USE OF OPEN EDUCATIONAL RESOURCES, AND MAKING AN APPROPRIATION.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. In Colorado Revised Statutes, **add** article 4.5 to title 23 as follows:

ARTICLE 4.5
Open Educational Resources

Capital letters or bold & italic numbers indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

Meet the OER Council

Working Groups

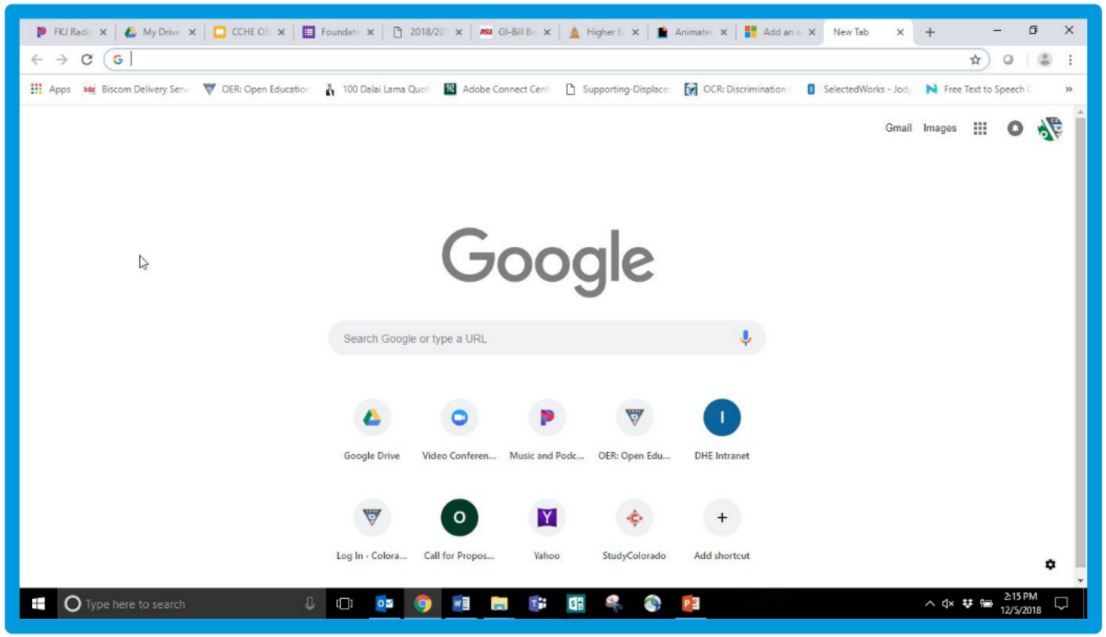
1. State Grant Administration & Sustainability
2. Policy & Reporting
3. Campus Outreach & Implementation
4. Communication & Website Curation



Not in photo: Dr. Ye Li (CSM), Dr. Mark Manzanares (ASU), Ragan Harper (CDE), Spencer Ellis (CDHE), Alana Mitchell (student rep)

Colorado OER Website

- Currently updated with information on Council, OER in Colorado and resources
- Resources include:
  - Training and 'How To' Materials
  - Licensing and accessibility guidelines
  - References to existing repositories
  - Guides for Creating Content



The Colorado OER Grant Program: Year One



23-4.5-101 (2): "…implement a statewide grant program for public institutions of higher education, faculty, and staff to create and expand the use of open educational resources."

Colorado OER Grant Program

Two types of proposals are solicited for an initial round of funding:

- Those from public institutions of higher education to support and expand creation, adoption, adaptation and promotion of the use of OER across the institution and among multiple institutions
  - Institutional Grants ranging from $10,000-$99,999
- Those from faculty and/or staff of public institutions of higher education, individually or in small groups, to support the creation, adoption, adaptation and promotion of OER for specific courses, disciplines or programs.
  - Individual or Small Group Grants ranging from $250-$4,999

- Minimization of indirect costs encouraged
- Partial funding and revisions to scope of work or project modification allowable
- Vary slightly for individual and institutional grants; refer to RFP
- Rubric directly reflects selection criteria & sections of proposal
- Emphasis on accessibility and Creative Commons license



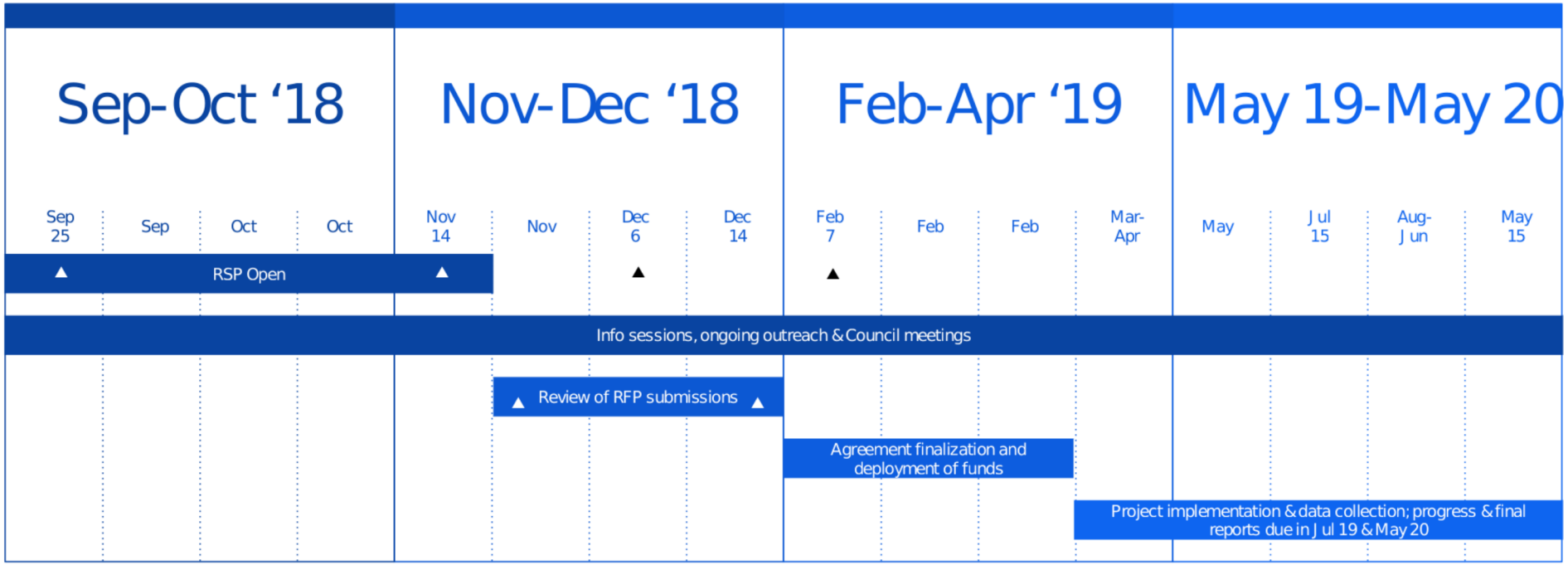
Current Applicants for the 2018 Cycle

List of Responses to RFP for Colorado OER Grant Cycle 2018

Institution Name	Name of Proposal	Proposal Level
ACC	ACC: "Access to Open Educational Resources (OER) Fosters Equity and Student Success"	Institutional
Aims	Aims: "Aims Community College's OER Tactical Goal Initiative: Building F2S (Free-to-Student) Courses"	Institutional
CCCOnline	CCCS: "Colorado's Top 40: Curating OER Content for the Top 40 GT Pathway Courses"	Institutional
CCD	CCD: "Expanding OER to Make Learning Affordable"	Institutional
CMC	CMC: "Expanding the Impact of Open Educational Resources/Online Resources in CMC's Learning Materials Program"	Institutional
CSM	CSM (1): "Creating OER Online Homework Assignments to Improve Student Access and Performance in Chemical Engineering Thermodynamics"	Small Group
CSM	CSM (2): "Open Mines: Deploying Open Educational Resources (OER) Development at Colorado School of Mines"	Institutional
CSM	CSM (3): "Supporting STEM Students with OERs: Creating an Online Technical Communication Center"	Small Group
CSU	CSU (1): "Plant Genetic Resources for Agricultural Productivity and Environmental Sustainability"	Small Group
CSU	CSU (2): "Digital Open Educational Resources (OER) for Statistics"	Small Group
CSU	CSU (3): "Adoption of Open Educational Resources in Principles of Economics Courses at Colorado State University"	Small Group
CSU	CSU (4): "Open Educational Resources at Colorado State University Fort Collins: Increasing Awareness, Supporting Course Conversion, and Developing High Quality OER"	Institutional
CSU-P	CSU-P: "CSU-Pueblo: A DOES Campus by 2028"	Institutional
CU (1)	CU-System: "Open CU: Building a Sustainable OER Initiative Across the University of Colorado"	Institutional
CU (2)	CU: "University Reading: Getting Ready for Success"	Small Group
FLC	FLC: "Putting Students at the Center through OER"	Institutional
FRCC	FRCC: "Developing Open Educational Resources for English Composition Courses"	Small Group
MSU-Denver	MSU-Denver: "Running the Open Road: Open Roadrunners Program"	Institutional
NJC	NJC: "Northeastern Junior College Open Educational Resources Grant"	Institutional
PCC	PCC: "Pueblo Community College Open Educational Resources (OER) Project"	Institutional
PPCC	PPCC: "Pikes Peak Community College OER Initiative"	Institutional
RRCC	RRCC: "Red Rocks Community College OER Pathway"	Institutional
TSJC	TSJC: "Trinidad State Junior College OER Adoption Survey"	Institutional
UCCS	UCCS: "Colorado OpenCourseWare of Computational Fluid Dynamics (CO-CFD)"	Small Group
UCD	UCD (1): "Undergraduate Design Build Textbook"	Small Group
UCD	UCD (2): "Open Education Resources for Health Professions Education"	Institutional
UNC	UNC: "OER Awareness and Infrastructure Building at the University of Northern Colorado"	Institutional
WCU	WCU: "OER Innovation at Western Colorado University: A Rural University's Role in Shaping Equitable Higher Learning Spaces"	Institutional

28 proposals totalling over $1.3 million in proposed projects!

Timeline



Visit to CCHE denoted by black triangle ▲

Next Steps



OER is just getting starting here in Colorado!





OER: 2019 & Beyond

- February 2019, revisit the CCHE for consent
- OER were highlighted in the ELC's State of Education Report
- Statewide conference on OER
- Statewide trainings and outreach to faculty and staff
- Refining the RFP process with commission feedback
- Appointments through 2021
- Planned collaboration

Sources & References

1. "The Impact of Open Educational Resource on Various Success Metrics": http://www.isetl.org/ijtlhe/pdf/IJTLHE3386.pdf .
2. "OER Council 2017 Report": https://highered.colorado.gov/Publications/Reports/legislative/OER/OER_Nov2017.pdf
3. Open Educational Resources. (2016) The William and Flora Hewlett Foundation. Retrieved November 20, 2018 from http://www.hewlett.org/programs/education/open-educational-resources
4. OER State Legislative Guide, January 2018, Creative Commons, Retrieved November 20, 2018 from http://creativecommons.org/wp-content/uploads/2018/01/OER-State-Legislative-Guide.pdf



Thank you!

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