The World of OER

A Guide to Open Educational Resource Terms, Initiatives, Organizations, and Research

This document is designed for entry into and exploration of the complex, evolving, and robust world of OER. The guide is intended to be collaborative and open. The University of Texas System and institutional partners will periodically review, update, and add additional OER and related resources.

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THIRTEEN INSTITUTIONS. UNLIMITED POSSIBILITIES.

Guide Overview

The World of OER is intended as a guide for individuals and institutions with an interest in learning more about OER. The guide is a deliverable of the UT System Affordable Learning Accelerator Task Force.

OER's origins are grounded in equity and social justice movements, and educators worldwide are committed to leveraging OER to promote deeper learning and student engagement and success through quality educational materials.

The world of OER is continuously developing and expanding as more educators and policymakers understand the importance of making no- and low-cost textbooks and other learning resources available to students everywhere.

What are Open Educational Resources?

Open Educational Resources (OERs) are teaching, learning, and research materials in any medium – digital or otherwise – in the public domain or that have been released under an open license that permits others no-cost access, use, adaptation, and redistribution with no or limited restrictions.

OERs, by design, have numerous definitions and interpretations across the globe. Even within the UT System, institutions have varying definitions of OER.

Additional Definition Examples
- Texas Education Code Definition
- Creative Commons: What is OER?
- Driving OER Sustainability For Student Success (DOERS3) Collaborative
- Hewlett Foundation Open Education
- Lumen Learning: Understanding OER

The 5 Rs of OER

Retain
The right to make, own, and control copies of the content (e.g., download, duplicate, store, and manage).

Reuse
The right to use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video).

Revise
The right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language).

Remix
The right to combine the original or revised content with other material to create something new (e.g., incorporate the content into a mashup).

Redistribute
The right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend).

The 5 "permissions" guiding openness were originally developed by David Wiley.

Federal and State Legislation on OER

In recent years, OER-focused legislation from federal and state governments has increased as education funding and resources have decreased. The following sections provide a brief overview of key pieces of legislation from the federal government, the State of Texas, and other state policy resources focused on the expansion of OERs.

Federal Legislation and Support

Every Student Succeeds Act (ESSA)

The Act encourages OER use in the following areas.
§4102(3)(A) allows for the use of openly licensed content for digital learning.
§4104(b)(3)(C)(vi) notes that states can use funds to make instructional content widely available through open educational resources.

TARGET Act (Consolidated Appropriations Act) 2018 (H.R. 1625)

Open Textbook Pilot – U.S. Department of Education (ED)
As part of the Fund for the Improvement of Post-Secondary Education (FIPSE), the Act originally included $5,000,000 for a pilot competitive grant program to support higher education creation of new or expanded open textbooks. In its first round (2018), the program gave one grant totaling almost $5 million to a STEM-focused open textbook project (LibreTexts) out of the University of California, Davis, and including eleven other institutions. The second round of funding (2019) provided two awards of $2.5M each to Chippewa Valley Technical College and the University of Arizona. Funding increased to $7,000,000 for 2020 for the third round and four awards were announced in January 2021. UT Arlington received one of the four grants to lead a consortium focused on developing OER for graduate programs in transportation planning. Funding for a fourth round of $7M was included in the budget submitted by Congress on December 21, 2020.

GEAR Up Funding
Provides funding for GEAR UP, a grant program providing six- or seven-year grants to states and partnerships for services for low-income students to improve enrollment and success in higher education.

Texas Legislation and Support

[Texas Higher Education Coordinating Board (THECB) OER Course Development and Implementation Grant Program (2020-2021)](#)
Funded by the Governor's Emergency Education Relief (GEER) Fund, this competitive grant program is designed to expand the use of new and existing OER materials and improve the quality of online course offerings.

87th Legislature (2021)
[HB 1027](#)
HB 1207 relates to the disclosure of certain information regarding course materials by public institutions of higher education. The bill requires dissemination of required course materials to include the publication of course schedules with lists of required and recommended course materials, including all associated costs or whether an item is an OER.

86th Legislature (2019)

[HB 3652](#)
HB 3652 requires "the Texas Higher Education Coordinating Board (THECB) to contract with a high-quality open educational resource (OER) repository to develop and maintain a web portal customized to meet the needs of individual institutions of higher education, students, and others who may benefit from access to OERs."

See also "[A Study on the Feasibility of a Texas Repository of Open Educational Resources](#)"

[HB 3650](#)
HB 3650 requires "any agreement made between a school district and a public institution of higher education to provide for a dual credit program to consider the use of free or low-cost open educational resources.

85th Legislature (2017)

[SB 810](#)
SB 810 established a grant program to encourage the use of open educational resources at Texas public institutions of higher education and makes a variety of statutory changes related to course listings and textbooks.

The THECB also received $300,000 for the implementation of SB 810, relating to open educational resources. This funding was allocated to support grants to faculty members to employ open educational resources, as well as a study to determine the feasibility of creating a state repository for such resources.

Other State Legislation Resources

SPARC OER State Policy Tracker
This site tracks the latest state-by-state policy activity relevant to the SPARC community, along with policies enacted in past years. SPARC is a global advocacy organization working to make research and education intentionally open and equitable for everyone (see the entry in the next section under *Organizations, Associations and Foundations*).

OER State Legislation and Advocacy Tracking
Council of Chief State School Officers

OER State Legislative Guide
Creative Commons

Higher Education Initiatives

Postsecondary affordability has become central to discussions about student persistence, graduation, and long-term outcomes. OER expansion in the higher education sector provides students, especially low-income and historically underrepresented students, relief from the rising costs of textbooks and other course materials. OER also promote access to high-quality educational materials, academic programs and pedagogy, leading to improved and more equitable outcomes. Colleges, universities, university systems, regional compacts, and state agencies across the United States and the world are developing programs, resources, and consortia to help institutions adopt the use of OERs in their classrooms. A selection of initiatives is included here.

For more information on OER initiatives at University of Texas institutions, visit OER at UT Institutions

Affordable Learning Georgia University of Georgia System	Supports the implementation of affordable alternatives to expensive commercial textbooks, which are free and customizable for faculty.
The Center for Open Educational Resources & Language Learning (COERLL) University of Texas at Austin	Produces and disseminates Open Educational Resources (OER) for the Internet public (e.g., online language courses, reference grammars, assessment tools, corpora, etc.) and promote a culture of collaboration that lies at the heart of the Open Education movement, and further aims to reframe foreign language education in terms of bilingualism and/or multilingualism
CUNY OER City University of New York	Since FY18 CUNY has been awarded $4,000,000 per year from New York State to establish, sustain, and enhance new and ongoing OER initiatives throughout CUNY.
Driving OER Sustainability for Student Success (DOERS3)	A national collaborative of university systems and associations committed to sustaining and scaling OER. Featured projects include an OER Equity Blueprint; recommended ways to recognize OER contributions in tenure and promotions practice and policy; recommendations for improved relationships with academic bookstores as partners in the support of OER; and development of a research agenda to better measure impact of OER on student learning and success.
Illinois Open Educational Resources State of Illinois	Offers an array of OER resources by category, including Education & Career, as well as curated resources to tag, upload, or share.

[Maryland Open Source Textbook Initiative](#) University System of Maryland	An initiative to facilitate faculty efforts to explore the promise of OER to reduce students' cost of attendance while maintaining, or perhaps even improving, learning outcomes.
[MERLOT](#) California State University System	Partners with educational institutions, professional societies, and industry to provide access to curated online learning, support materials, and content creation tools.
[MIT Open Courseware](#) Massachusetts Institute of Technology	A web-based publication of virtually all MIT course content (2,400 courses).
[OASIS](#) State University of New York Geneseo	OASIS, the Openly Available Sources Integrated Search, is a tool that aims to make the discovery of open content easier across North America and abroad with an ever-expanding list of content sources and searchable records.
[OERTX](#) Texas Higher Education Coordinating Board	A searchable public digital library of OERs for higher education that also provides an option to add OER content.
[OhioLink Open Course Content Library](#) Ohio Technology Consortium Member	Searchable materials for high-enrollment courses, connected to library services and collections, and manages collaborative services.
[Open Education](#) Office of Educational Technology (Department of Education)	Provides information for professors and focuses on grants for educators to be able to incorporate OER resources in their classrooms.
[Open Educational Resources](#) Colorado Department of Higher Education	As part of its master higher education plan, *Colorado Rises: Advancing Education and Talent Development*, Colorado has a number of funded initiatives to advance equity and innovation through OER.

Open Stax Rice University	The leading developer and provider of free, peer reviewed textbooks for high school and college.
Open Textbook Network (OTN) University of Minnesota	Promotes access, affordability, and student success using open textbooks.
SUNY OER Services State University of New York	Since FY18 SUNY has been awarded $4,000,000 per year from New York State to establish, sustain, and enhance new and ongoing OER initiatives throughout SUNY.
Texas Learn OER Digital Higher Education Consortium of Texas (DigiTex)	A series of self-paced online learning modules intended to educate the user about OER.
UNG Textbooks & OERs University of North Georgia	Provides a peer reviewed, academic press with a mission to contribute scholarly work to OER and provides funds through Affordable Learning Georgia Textbook Grant.

Organizations, Associations, and Foundations

Organizations, associations, and foundations provide communities of practice, resources, OER repositories, and funding to help expand the use of OERs at all levels of education. The following is a select list of many from around the country and the globe.

Organizations & Associations

Achieve: Rubrics for Evaluating OER	An evaluation system for objects found within Open Education Resources. An object could include images, applets, lessons, units, assessments, and more. The rubrics in this packet can be applied across content areas and object types.
Creative Commons (see also CC Wiki)	A nonprofit organization meant to bring educators together to engage in open access learning resources. CC also addresses legal obstacles to the sharing of knowledge and creativity.
Digital Public Library of America	An online database with free access to historical content. The content can be accessed by subject, time period, or through the recently added category.
Every Learner Everywhere	A network of organizations with expertise in evaluating, implementing, scaling, and measuring the efficacy of education technologies, curriculum and course design strategies, teaching practices, and support services that personalize instruction for students in blended and online learning environments.
Institute for the Study of Knowledge Management in Education (ISKME)	Open education initiatives that support student-centered teaching and learning practices throughout the globe.
Lumen Learning	An education technology company, experienced in partnering with higher education institutions, that "enhances" OER textbooks with personalized learning tools.

National Consortium of OER	A national network led by the WCET to coordinate collaboration among the four regional higher education compacts, the Midwestern Higher Education Compact (MHEC), New England Board of Higher Education (NEBHE), Southern Regional Education Board (SREB), and Western Interstate Commission for Higher Education (WICHE). The Consortium aims to increase access, affordability, and equity using OER.NCOR.
National Digital Inclusion Alliance	A unified voice for home broadband access, public broadband access, personal devices, and local technology training and support programs, focused on practitioner support, policy, awareness, data, and research.
OER Commons	Provides a step-by-step process on how to navigate their platform and offers a user-friendly way of accessing open educational resources.
PLOS (Public Library of Science)	A nonprofit, Open Access publisher focused on science and medicine research communication as an alternative to existing fee-based journals.
Public Interest Research Group U.S. (PIRG)	As part of its portfolio, PIRG is taking on the publishing industry with and on behalf of students, affordability, data and privacy concerns, and other topics vital to affordable higher education.
Rebus Foundation	Acts as an advocate for new publishing models and technologies based on the belief that written texts maintain a critical place in documenting human knowledge and experiences.
Scholarly Publishing & Academic Resource Coalition (SPARC)	A global advocacy organization working to enable the open sharing of research outputs and educational materials in order to democratize access to knowledge, accelerate discovery, and increase the return on our investment in research and education.
WICHE Cooperative for Educational Technologies (WCET)	Resources include primers on OER, research on policy and OER adoption and expansion across the country, teaching and learning articles, webinars and blogs, data, and others.

Foundations & Grants

Achieving the Dream Lumina Foundation	Leads the most comprehensive non-governmental reform movement for student success in higher education history.
Michelson 20MM	Organization dedicated to supporting and investing in entrepreneurs, technologies, and higher learning initiatives that seek to transform lives.
Open Educational Resource Foundation	An independent, not-for-profit organization that provides networking and support for institutions, educators, and learners to achieve strategic objectives.
William & Flora Hewlett Foundation	Provided seminal definitions, expansion, and philanthropic and other support to advancing OER in K-12 and post-secondary educational sectors. The Hewlett Foundation gives nearly $8 million per year to OER and has funded colleges and universities to develop Z-degrees (zero-cost degrees).

Research and Analysis

In this section you will find selected research and publications related to the administration and implementation of OER, as well as studies on OER impact and outcomes.

OER Background & Implementation

[A Brief History of Open Educational Resources](#) (2017) T. J. Bliss, M. Smith	An analysis of the history and value of the open educational resources movement beginning in the 1990s through today's current trends.
[Digital Learning Innovation Trends](#) (2020) Every Learning Everywhere	A report on the results of a 3-year grant to identify effective practices for digital learning, with a focus on improving outcomes for underrepresented post-secondary students.
[Inflection Point: Educational Resources in U.S. Higher Education](#) (2019) Bayview Analytics	A study that explores the process of faculty selection and use of required educational materials in their courses.
[Open 101: An Action Plan for Affordable Textbooks](#) (2019) Student PIRGS	A report that investigates high textbooks prices at universities across the country and provides recommendations for ensuring free general education resources.
[Open Educational Resources (OER) in Texas Higher Education](#) (2019) DigiTex, THECB and ISKME	Results of an independent survey exploring the status of OER programs, policies, and initiatives at two- and four-year institutions in Texas.
[SPARC Landscape Analysis](#) (2019) Scholarly Publishing and Academic Resources Coalition	Provides an overview of actions and strategies that institutions and higher education leaders can consider adopting to limit the potential harms and leverage potential benefits.

OER Impact

[Changing our (Dis)Course: A Distinctive Social Justice Aligned Definition of Open Education](#) (2018) Sarah Lambert	A critical analysis of 19 texts and the alignment of Open Education literature with social justice principles.
[Do open educational resources improve student learning? Implications of the access hypothesis.](#) (2019) Grimaldi *et al*	A research study that examines the common methods used to evaluate OER efficacy and their relationship to the access hypothesis. Simulation analysis indicates that standard research methods are unlikely to detect the learning benefits of OER.
[The Impact of Open Education Resources on Various Student Success Metrics](#) (2018) Colvard *et al*	Provides results from a large study that indicates OERs not only save students money, but also improve academic outcomes.
[OER at Scale: The Academic and Economic Outcomes of Achieving the Dream's OER Degree Initiative](#) (2020) Griffiths *et al*	Research and evaluation of a large-scale OER effort, including 38 colleges nationwide offering 6,600 OER course sections over two years to 160,000 students.
[Open educational resources and college textbook choices: a review of research on efficacy and perceptions.](#) (2016) John Hilton III	A synthesis of 16 studies that examined the influence of OER on higher education learning outcomes or student and faculty perceptions of OER. Multiple studies indicate that learning outcomes are similar, there are significant financial benefits, and students and faculty feel generally positive about OER.

Z-Degrees

Z-Degrees (zero-cost degrees) are complete degree pathways for students to earn an associate degree with zero costs for textbooks. Community colleges are well known for using Z-Degrees, but strategies and resources can be used across many higher education institutions.

Selected Articles & Resources

Z-Degrees: Can They Make College Affordable?

Houston Community College Z Degree Program

Central Lakes College: Zero of Low Textbook Cost Classes at CLC

ACC Z-Degree

California approves $115 Million Investment in Zero Textbook Cost Degrees and OER in California Community Colleges

"TCC Today: Z-Degree adds up to $1 million in savings plus student retention and better grades"

"Implementing OER in the Z-Degree Program at Tidewater Community College"

38 Colleges Launch Entire Degree Programs With Open Educational Resources

"With 5 Million for Z-Degrees, Small Change is a Big Step for California Community Colleges"

National K-12 and International Initiatives

K-12 Initiatives & Toolkits

BetterLesson	Founded by teachers for teachers, BetterLesson is designed to provide a simple way for educators to connect and share high-quality lesson plans
Copyright & Creativity	Focuses on copyright material and curriculum support for schoolteachers, including elementary school, middle school, high school curriculum and professional development for teachers.
CK-12	The CK-12 mission is to enable everyone to learn in his or her own way. The organization offers courses and library resources all free of cost.
Curriki	Curated resources for teachers, students, and parents. This site is a community for teaching and learning. It is meant to have educators create, share, explore high-quality K-12 content and it is another example that universities can draw from to build platforms for professors and students to share no cost and/or affordable material.
ISTE: Open Educational Resources	This site is divided into several sections: How to Catalyze OER, The Future of PK-12 Open ED Resources, Leaders' Lessons Learned, and Getting Started with OER. It is a site meant to motivate professors and educators alike to find practical ways in which to implement OER into their classroom spaces.
Khan Academy	Khan Academy is a nonprofit with the mission to provide a free, world-class education for anyone anywhere. The organization offers personalized learning, trusted content, and tools to empower teachers. It is focused on K-12, including some AP instruction.
OpenEd	The ACT Academy provides a platform to obtain free resources to teach different subjects at the high school level primarily. It is an example that can serve as a resource for creating similar platforms in higher education.

[Open eBooks](#)	Open eBooks is a library containing thousands of popular and award-winning titles that are free for children in need-based communities. The goal is to provide free books so that students are encouraged to read beyond school walls and gain a love for reading. This setup is used by a lot of higher education institutions and can serve as a model for sharing literature in a practical way.
[PBS Learning Media](#)	PBS Learning Media is a site that provides direct access to thousands of classroom ready curriculum-targeted digital resources. PBS LearningMedia builds on the strength of public media, and it is designed to improve teacher effectiveness and student achievement.
[TEA Open-Source Instructional Materials](#)	The Texas Education Agency offers a list of free curricula and OER resources focused on K-12 resources, specifically for the high school classroom.
[UnboundEd](#)	Empowering teachers by providing free, high-quality, standards-aligned resources for the classroom; the opportunity for immersive training through Institute; and the option of support through website offerings.

International Initiatives

[OER World Map](#)	A resource intended to facilitate the exchange of data, experiences, and ideas for Open Education communities, and provides exploration of global contributions to OER.
[BC Campus Open Education Faculty OER Toolkit](#)	The British Columbia Faculty OER toolkit is an information resource about and guide to adapting and adopting Open Educational Resources. Included are definitions and examples, information about Creative Commons licensing, and tips on how to adapt and/or adopt OER for classroom use.
[Cape Town Declaration](#)	A statement of principle, a statement of strategy, and a statement of commitment. It is meant to spark dialogue, inspire action, and help the open education movement grow.
[International Journal of Open Educational Resources](#)	This site provides a starter kit that has been created to provide instructors with an introduction to the use and creation of OER. The text is divided into 5 sections: Getting Started, Copyright, Finding OER, Teaching with OER, and creating OER. It is meant for users who are entirely new to Open Education.
[International OER Guides and Toolkits](#)	This site offers OER guides and toolkits in an international context, including countries such as the UK, South Africa, and New Zealand.
[OER Africa Toolkits](#)	OER Africa has prepared toolkits in which users can find a collection of relevant information, guides, and templates pertaining to OERs, particularly issues around using and adapting OER materials. The purpose of the toolkits is to support the development and production of open educational materials that can be integrated into high-quality programs of learning.
[Ontario Tech Library OER Toolkit](#)	This toolkit provides information and tools to help faculty and the college community to understand, engage with, and sustain OER in their work and practice.
[UNESCO Open Educational Resources](#)	A United Nations agency that has developed recommendations and resources for OER, based in the belief that universal access to information through education is fundamental to peace and sustainable social and economic development.