

Ten Facts About Open Educational Resources (OERs)

01 OERs are more than just free teaching, learning, and research materials

OERs are resources that are freely available for anyone to use, adapt, distribute, translate, and share with no or very minimal restrictions. They are not only about cost savings but are developed by individuals who share the belief that the world's knowledge is a public good and should be accessible to all. OERs encompass a wide range of materials, including textbooks, syllabi, lecture notes, learning modules, videos, and multimedia applications. Below are links to five well-recognized definitions of OERs:

- The Cape Town Declaration - <http://www.capetowndeclaration.org/read-the-declaration>
- OECD (Organisation for Economic Co-operation and Development) - <https://www.oecd.org/dataoecd/35/7/38654317.pdf>
- OER Commons definition - <https://www.oercommons.org/about>
- UNESCO adoption of OERs - <http://www.unesco.org/new/en/communication-and-information/events/calendar-of-events/events-websites/world-open-educational-resources-congress/>
- The William and Flora Hewlett Foundation definition - <https://www.hewlett.org/strategy/open-educational-resources/>

02 OERs are available in most subject areas

OERs are available for most commonly taught subjects in higher education; however, the greatest availability is for introductory level courses. Unfortunately, there is no “one-stop shop” site where you can locate them. Below are links to some of the most common OER repositories and useful ways to find open educational resources.

- Merlot - <https://www.merlot.org>
- The OER Commons - https://www.oercommons.org/browse?f.edu_level=post-secondary
- OpenStax - <https://openstax.org/>
- Open Textbook Library - <http://open.umn.edu/opentextbooks/>
- Set search engines to display only Creative Commons or “free to share and modify” results (e.g., for Google click at the bottom right Settings > Advanced Search before searching; for YouTube, after you get your search results, click on Filter).

03 Many educational jurisdictions have formal OER initiatives

Many provinces, states, and countries are now formally supporting OERs as a way to provide high quality learning materials to students and make higher education more affordable. In some jurisdictions, faculty are offered grants to collaborate on the development, distribution, and evaluation of OERs. Here are some examples:

- British Columbia Open Education - <https://open.bccampus.ca/>
- eCampusOntario - <https://openlibrary.ecampusontario.ca/open-textbooks/>
- Open Oregon Educational Resources - <http://openoregon.org/>
- WISELearn Resources - <https://wlresources.dpi.wi.gov/>
- OER Africa - <http://www.oerafrica.org/>

04 Barriers to widespread OER adoption

OER users need to first locate and then scrutinize resources carefully for accuracy and appropriateness. Unlike reputable commercial textbook publishers, not all OERs are peer-reviewed, so the quality of the available resources is variable. Updating of OERs is not always done by the author(s). However, even if others update or enhance such open online materials, they are not obliged to share their updates or extensions. Some of the issues identified by educators about the barriers to OER adoption can be found in the resources below.

- Difficulty to find relevant OERs, concern about updates, and not high enough quality - Seaman, J.E., & Seaman, J. (2017). *Opening the Textbook: Educational Resources in U.S. Higher Education, 2017*. Babson Survey Research Group. <http://www.onlinelearningsurvey.com/reports/openingthetextbook2017.pdf>
- Concerns about sustainability after funding is withdrawn, overcoming faculty culture when sharing is not the norm - Weller, M. (2014). *Battle for Open: How openness won and why it doesn't feel like victory*. London: Ubiquity Press. <http://dx.doi.org/10.5334/bam>
- Lack of understanding about what OERs are and questions about whether OERs lead to improved student success. <https://www.hewlett.org/wp-content/uploads/2016/08/OERRH%20Evaluation%20Final%20Report%20June%202015.doc>
- Need for translation and adaption for non-English speaking cultures - Krelja Kurelovic, E. (2016). Advantages and limitations of usage of open educational resources in small countries. *International Journal of Research in Education and Science (IJRES)*, 2(1), 136-142. <https://files.eric.ed.gov/fulltext/EJ1105180.pdf>
- Unfamiliarity with OERs and not knowing how to develop them. Guo, Y., Zhang, M., Bonk, C. J., & Li, Y. (2015). Chinese faculty members' open educational resources (OER) usage status and the barriers to OER development and usage. *International Journal of Emerging Technologies in Learning (IJET)*, 10(5), 59-65. http://publicationshare.com/pdfs/IJET_2015.pdf

05 Most OERs are licensed under Creative Commons

Typically, OERs are licensed under Creative Commons (CC), a licensing system that allows the creator to retain copyright but others to freely use and adapt the materials. There are six categories of licenses, all of which require attribution of the work to the creator. The least restrictive license (called BY) only requires the user to acknowledge the creator, while the most restrictive (called ShareAlike – SA) requires any adaptations of the material to be released under the same license. Faculty should be aware of the type of license granted for any materials that they use. The following links provide more details of CC licensing.

- FAQs at Creative Commons - <https://creativecommons.org/faq/>
- A concise table comparing CC licensing categories - https://en.wikipedia.org/wiki/Creative_Commons_license#Seven_regularly_used_Licenses
- Examples of how to attribute CC works from University of Glasgow - https://www.gla.ac.uk/media/media_464806_en.pdf
- Step-by-step guide to sharing work you create under CC - <https://creativecommons.org/share-your-work/>
- How to release your work fully into the public domain without any restrictions - <https://creativecommons.org/choose/zero/>

06 Open courseware is available from many universities worldwide

In 2001, MIT launched the Open Courseware initiative to freely share their course content with the world. Since then, many higher education institutions around the world followed suit and the term open courseware (OCW) came into common use. The terms OCW and OER are often used interchangeably; however, OCW refers to a particular subset of course-related materials such as syllabi, slides, assignments, videos, and other teaching materials. Listed below are links to a short sampling of open courseware programs and initiatives.

- MIT's Open Courseware program - <https://ocw.mit.edu/about/>
- OERs from the Open University - <http://www.open.edu/openlearn/>
- OERu international network of higher education partners - <http://oeru.org>
- Commonwealth of Learning OAsis - <http://oasis.col.org/>

07 Wikipedia is the largest single repository of open content

With over 5.6 million English articles and millions more in over 300 different languages, Wikipedia is the largest single source of open content. As with all open content, educators must always carefully scrutinize the accuracy of the content which can vary considerably in Wikipedia. Not as well-known is Wikimedia Foundation, host of Wikipedia, which supports a dozen other projects of value to educators. Below are five of the most relevant such resources for teaching and learning:

- Commons – a repository of over 47 million media files - <https://commons.wikimedia.org>
- Wikibooks – a collection of over 3,000 open-content textbooks - <https://www.wikibooks.org>
- Wikiversity – a collection of over 25,000 learning resources - <https://www.wikiversity.org/>
- Wikisources – a library of over 390,000 public domain and newly-created books - <https://wikisource.org>
- Wikinews – a collection of world news articles since 2004 - <https://wikinews.org>

08 Support needed for faculty on how to use OERs

Despite an abundance of OERs available, their adoption rate is relatively low according to a [recent survey](#) of users of OpenStax undertaken by Babson Research Group. Among the reasons given for this finding is that faculty are unaware of what's available in terms of OERs, their quality, and their long-term viability. Such findings suggest a need to support faculty in their adoption and use. Examples for supporting faculty can be found at the following websites:

- Encourage libraries to make OERs searchable in their catalogues – e.g., <https://open.ubc.ca/find/finding-open-textbooks/>
- Recognize the creation of open education resources in the promotion and tenure process – e.g., <http://www.hr.ubc.ca/faculty-relations/files/SAC-Guide.pdf>
- Create funding opportunities for faculty to develop OERs – e.g., <https://www.ecampusontario.ca/open-initiatives-funding/>
- Provide materials to faculty on how to get started with OERs (e.g., OER Handbook for Educators) - http://wikieducator.org/OER_Handbook/educator_version_one
- Five steps faculty can take to integrate OERs into a course (video) – Iowa State University - <https://www.youtube.com/watch?v=m64acpneH8Y>

09 Higher education institutions have a role to play in OERs

Higher education institutions need to act proactively if they want to advance the adoption of OERs, as the onus cannot be on faculty alone. Institutions whose culture has shifted toward OER adoption have purposely set out to plan for change. Some institutions focus on internal usage of OERs, while others strive to make their resources open to the world.

- Strategic Implementation of Open Educational Resources in Higher Education Institutions [article] - https://scholarworks.boisestate.edu/cgi/viewcontent.cgi?article=1006&context=uar_2017
- UMass Library Open Education Initiative - <https://www.library.umass.edu/services/teaching-and-learning/oei/open-education-initiative/>
- Open Learning Initiative at Carnegie Mellon University - <http://oli.cmu.edu/get-to-know-oli/learn-more-about-oli/>
- Open UBC - <https://open.ubc.ca/about-us/>
- Advocacy for OERs on campus – a faculty perspective [video] - <https://vimeo.com/7568210>

10 A wide variety of open access journals and articles are available to support teaching and learning

Thousands of peer-reviewed open journals exist and most major commercial publishers now provide open access articles that can be used as course resources. These resources may be especially valuable to smaller universities that do not have wide access to licensed journals or commercial academic databases.

- A searchable database of quality, peer-reviewed open articles and journals – Directory of Open Access Journals (DOAJ) - <https://doaj.org/>
- Leading open access peer-reviewed scientific journals – <https://www.omicsonline.org/about.php>
- Open access journal myths put to rest – University of Illinois at Chicago <https://researchguides.uic.edu/sc/oamyths>
- Pros and cons of open access journals – Open Access Netherlands - <http://www.openaccess.nl/en/what-is-open-access/pros-and-cons>
- Guide to evaluating journals from Ryerson University – <https://learn.library.ryerson.ca/scholcomm/journaleval>