

Open Educational Resources

TJ Bliss & Sara H. Tuiloma

Open educational resources (OER) are copyrightable works useful for educational purposes that exist in the public domain or under a copyright license that provides free and perpetual permission to retain, revise, remix, reuse, and redistribute (collectively known as the “5R Activities”). The term “Open Educational Resources” was originally coined at a 2002 Forum on Open Courseware organized by the United Nations Educational, Cultural and Scientific Organization (UNESCO; UNESCO, 2002). OER comprise the foundational component of the broader concept of Open Education and may include full courses, course materials, modules, textbooks, videos, tests, and any other copyrightable physical or digital tools or materials used to support access to knowledge (Hewlett Foundation, 2022). Creative Commons provides the most commonly used legal schema for granting an open license to a copyrightable educational resource (Creative Commons, 2020a, 2020b; Kimmons, 2018). Instructional techniques that utilize or rely on OER are generally classified as Open Educational Pedagogy, Open Educational Practices, or OER-Enabled Pedagogy (Wiley, 2013, 2015, 2017).

Keywords: [5R Activities](#), [Copyright](#), [Creative Commons](#), [OER](#), [Open](#), [Open Education](#), [Open Educational Resources](#), [Open Learning](#), [Public Domain](#)

The concept of open educational resources only exists and has relevancy in the legal context of copyright law. Where copyright law does not exist, there is no need for a concept like OER. As such, OER is fundamentally a legal construct, built on the idea of legal rights or permissions and requirements granted by creators to intended users.


The most commonly accepted set of permissions are the 5R Activities, developed and defined by David Wiley. These include permission to retain, revise, remix, reuse, and redistribute copyrightable works (Wiley, n.d.). Wiley describes each of these permissions with examples:




- Retain - make, own, and control a copy of the resource (e.g., download and keep your own copy)
- Revise - edit, adapt, and modify a copy of the resource (e.g., translate into another language)
- Remix - combine an original or revised copy of the resource with other existing material to create something new (e.g., make a mashup)
- Reuse - use an original, revised, or remixed copy of the resource publicly (e.g., on a website, in a presentation, in a class)
- Redistribute - share copies of an original, revised, or remixed copy of the resource with others (e.g., post a copy online or give one to a friend)

In addition to permissions, creators of OER often reserve some rights and requirements on the use of their works that are less than the “all rights reserved” restrictions of full copyright but more than the “no rights reserved” status of works in the public domain. The most widely used international schema for reserving these rights and notifying users of their existence is a standard set of six copyright licenses developed and maintained by [Creative Commons](#) (Creative Commons, 2020a; Kimmons, 2018; cf. Table 1). To release a work under one of these licenses, authors simply need to append the desired symbol and link to their work.

Table 1

The Six Creative Commons Copyright Licenses

Name	Short Name	Symbol and Link	Description
Creative Commons Attribution	CC BY	 The image shows the Creative Commons Attribution (CC BY) license logo. It consists of two circular icons: the first contains the letters 'cc' and the second contains a stylized person icon. Below these icons, the letters 'BY' are displayed. The entire logo is set against a dark background with a light border.	This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator. The license allows for commercial use.

			material under identical terms.
Creative Commons Attribution-NonCommercial	CC BY-NC		This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format for noncommercial purposes only, and only so long as attribution is given to the creator.
Creative Commons Attribution-NonCommercial-ShareAlike	CC BY-NC-SA		This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format for noncommercial purposes only, and only so long as attribution is given to the creator. If a reuser remixes, adapts, or builds upon the material, they must license the modified material under identical terms.
Creative Commons Attribution-NoDerivatives	CC BY-ND		This license allows reusers to copy and distribute the material in any medium or format in unadapted form only, and only so long as attribution is given to the creator. The license allows for commercial use.

creator.

Four of the six Creative Commons licenses are used in the legal creation of OER: CC-BY, CC-BY-SA, CC-BY-NC, and CC-BY-NC-SA because these licenses allow for all of the 5R Activities. The last two licenses, CC-BY-ND and CC-BY-NC-ND, do not allow users to remix or revise a work, and thus violate these core elements of the definition of OER.

OER is the subject of much academic research, with widely varying goals and approaches. A large corpus of research is built on a framework first described by (Bliss et al, 2013; Open Education Group, n.d.) known as the COUP Framework, which explores the impact of OER through the lenses of Cost, Outcomes, Uses, and Perceptions. Several meta-analyses of OER research have been published as well, exploring the overall impact of OER across various metrics and in various contexts (Colvard et al., 2020; Grewe & Davis, 2017; Hendricks et al., 2017; Hilton, 2016; Ikahihifo et al., 2017; Jhangiani & Jhangiani, 2017; Martin et al., 2017).

Policy related to OER has been implemented throughout the world at many different levels of governance, including institutional, municipal, regional, national and international (Idaho State Board of Education, 2021; SPARC, n.d.). Such policies typically incentivize the adoption and use of OER by educators. In 2019, UNESCO adopted a [Recommendation on OER](#) that requires all member states to “monitor policies and mechanisms related to OER using a combination of quantitative and qualitative approaches” (UNESCO, 2019).

Related Terms

- [Open Pedagogy](#)

OER-Enabled Pedagogy, Open Education, Open Educational Practices, Open Licensing, Open Pedagogy, Open Textbooks

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[Watch on YouTube](#)

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TJ Bliss is a change-maker in higher education. He focuses on making change with people by building strong relationships of trust, and has proven track records in education leadership, philanthropy, fundraising, and nonprofit management. TJ is the Chief Academic Officer for the State Board of Education in Idaho, where is an advocate for affordable and accessible higher education using open education and other strategies. Previously, TJ was the Chief Advancement Officer for the Wiki Education Foundation and Program Officer overseeing OER funding at the William and Flora Hewlett Foundation. TJ has a Ph.D. in Educational Inquiry, Measurement and Evaluation from Brigham Young University, and an M.Sc. in Biology from the University of Nebraska.

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