



Commonwealth Open Educational Resources Policy Brief

Who is this aimed at

This brief is aimed at education policy makers and planners in government and institutions.

Key messages

- Open Educational Resources (OER) are freely available.
- OER can help users access free, high-quality learning materials.
- OER can help governments to achieve the Sustainable Development Goals and increase access to education.
- Costs of the reproduction of quality educational resources may be reduced.

Policy options

- Existing OER may be considered before investing in new materials development.
- Licensing new materials as OER can help reduce the cost of reproduction and service delivery to learners.

Executive summary

Open Educational Resources (OER) are educational materials that are freely available and can be legally used and modified by anyone. Properly leveraged, OER can help everyone in the world access free, high-quality learning materials. OER can help governments meet the aims set out in the United Nations' Sustainable Development Goals (SDGs), especially with regard to SDG4: ensuring inclusive and equitable quality education, and promoting lifelong learning opportunities for all. This policy brief describes OER, open licences, open education licensing policies and actions governments may take to support open education in their countries.

What are OER?

OER are educational materials that can be shared at no cost, with legal permissions for the public to freely modify the content. The Hewlett Foundation defines OER as: 'teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property licence that permits their free use and re-purposing by others'

Educators and governments supporting public education can use OER to share effective educational materials with their citizens (and beyond) for near zero cost. Because education is fundamentally about sharing knowledge and ideas, many argue governments should actively support OER. Shifting to this model can generate more equitable education opportunities globally, and promote social benefits without sacrificing the quality of educational content.

The development and sharing of OER is possible because:

- almost all educational resources are 'born digital', and digital resources can be stored, copied and distributed for near zero cost;
- the internet makes it simple for the public to share digital content via the web, social media, email, and other online publishing and communication technologies; and
- open licences (e.g., Creative Commons licences) make it simple and legal to keep one's copyright and legally share OER with the world.

Why are OER needed?

OER are needed to ensure all students and teachers, in all countries, of all income levels, have access to high-quality educational materials. In many countries, students in tertiary and higher education are required to purchase expensive textbooks for university courses. Often these students cannot afford to purchase these textbooks. In primary and secondary (K-12) schools, governments usually purchase the educational resources. High costs have a negative impact on keeping the curriculum current because countries cannot afford to renew textbooks as frequently as the curriculum changes. In 2012, in one country there was only 1 reading textbook for 12 students, and only 1 mathematics textbooks for 14 students. Because of high purchasing and/or licensing fees, educational materials might be bought and kept for many years, resulting in out-of-date educational resources being used, which are not adaptable because of their all-rights-reserved copyright status.

Some of the most typical reasons for moving to OER include, but are not limited to:

- reducing barriers to education, including access, cost, language and format;
- ensuring educators have the legal rights to retain, reuse, revise, remix and redistribute educational resources as they determine – without having to ask permission;
- increasing the efficiency and effectiveness of public funds spent on education;
- transforming teaching and learning and enabling effective open pedagogy;
- connecting communities of educators and learners around learning materials;

- building capabilities, skills and literacies for work in a digital age; and
- enabling educators to have more capability in the classroom.

How do OER help educators and students ?

OER give educators the ability to adapt instructional resources to the individual needs of their students, to ensure that resources are up to date and that cost is not a barrier to accessing high-quality educational resources. OER are already being used in primary, secondary and tertiary traditional education, workforce training and informal learning around the world.

What is the difference between 'free' and 'open' educational resources?

While many resources can be accessed at no cost, not all resources are open. Resources may be temporarily free or restricted from use at some time in the future (including, by the addition of fees to access those resources). Moreover, free but not open resources may not be modified, adapted or redistributed without obtaining special permission from the copyright holder.

Are all OER digital?

Like most educational resources these days, most OER start as digital files (such as a DOC file). OER can be made available to students in both digital and printed formats. Digital OER are easier to share, modify and redistribute. "Being digital" is not what makes something an OER or not. This flexibility of having a file in an editable, digital format is important, because one can then choose to edit, and use digitally (such as in PDF or DOC) or in print. OER textbooks, for example, can typically be printed for a low fee, while still being available at no or negligible cost in digital form.

OER are released under open licences that permit recipients of the materials to engage in '5R' legal permissions:

- 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 or 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, revisions or remixes with others (e.g., give a copy of the content to a friend).

Are OER high quality?

Studies at primary, secondary and tertiary education levels show that students who use OER do as well as, and often better than, their peers using traditional resources. Also, many OER are developed through rigorous peer review and production processes that mirror the methods used by traditional education publishers. However, being open or closed does not inherently affect the quality of a resource.

Being open enables educators to use the resource more effectively, which can lead to better learning and student outcomes. For example, OER can be updated, tailored and improved locally to fit the needs of students - translating the OER into a local language, adapting a biology open textbook to align it with local science standards, or modifying an OER simulation to make it accessible for a student who cannot hear.

There are also multiple 'quality frameworks or rubrics' such as the COL TIPS framework and the Achieve OER rubrics that are useful in evaluating the quality of educational resources (open or closed).

Do OER require special technology to use?

No. A benefit of OER is that users have the right to transform the materials into any format they wish (e.g., changing a non-editable PDF to an editable HTML document), which is almost always prohibited when dealing with traditional resources that carry an 'all-rights-reserved' notice. Therefore, OER are not tied to a particular type of device or software, which gives students and institutions

more freedom to choose the technology they wish to use. Where technology such as computers or smartphones are not available, there is always the option to print resources.

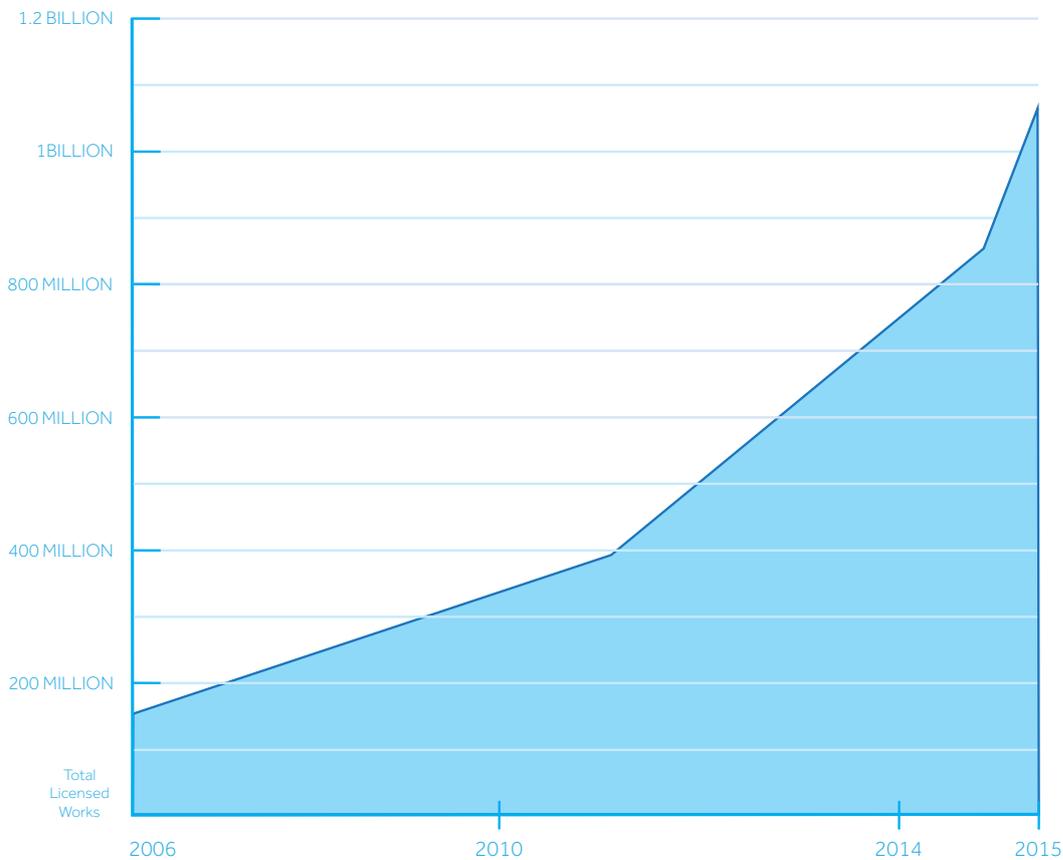
How do you tell if educational resources are OER?

The key distinguishing characteristic of OER is their copyright licence, which communicates the permissions to share and adapt the educational content, while ensuring that the author receives credit for the work. If lesson plans or activities are not clearly marked with an open licence, or already in the public domain, they are not OER. The most common way to release materials as OER is through applying Creative Commons (CC) licences, which have been created with input from copyright experts. The CC licences are standardised, free to use, and adopted by millions of people around the world.

What is Creative Commons?

CC is a non-profit organisation founded in 2001 that develops and maintains the open copyright licences and legal tools the world uses to share content on more open terms than the default 'all rights reserved' of copyright. CC consists of an international network of affiliates who provide legal, educational and outreach support to creators and users in over 85 countries. Creative Commons licences are central to OER, as most OER are CC-licensed.

CC licensed works have nearly tripled in the last 5 years.



Source: 2015 State of the Commons Report¹³

CC publishes six open copyright licences and technology that permits CC-licensed works to be searched for and found on the internet. All of the CC licences grant a standard set of legal permissions to:

- make copies of the work;
- distribute, display and share the work;
- change copies from one medium to another; and
- incorporate the work into a collection.

All of the CC licences require a standard set of conditions, including:

- Retain copyright and licensing info attached to the work.
- Give credit to the author or rights holder.
- Do not imply a use is endorsed by the author.
- Identify if changes were made to the work.
- Do not add technical restrictions to access the work.

Can all CC licences be used for OER?

No. For OER, the use of CC licences looks like this: The two CC licences that do not permit adaptations to be made (hence 'no derivatives' or 'ND') are not OER compatible licences because they do not allow the public to revise or remix the educational resource. Because the ND licences violate the 5Rs and every major OER definition, the open education community does not use ND licences for OER.

Where can I find OER?

Because OER are created, adapted and used around the world, there are multiple places to find OER. This is a short, non-exhaustive list of OER projects and repositories:

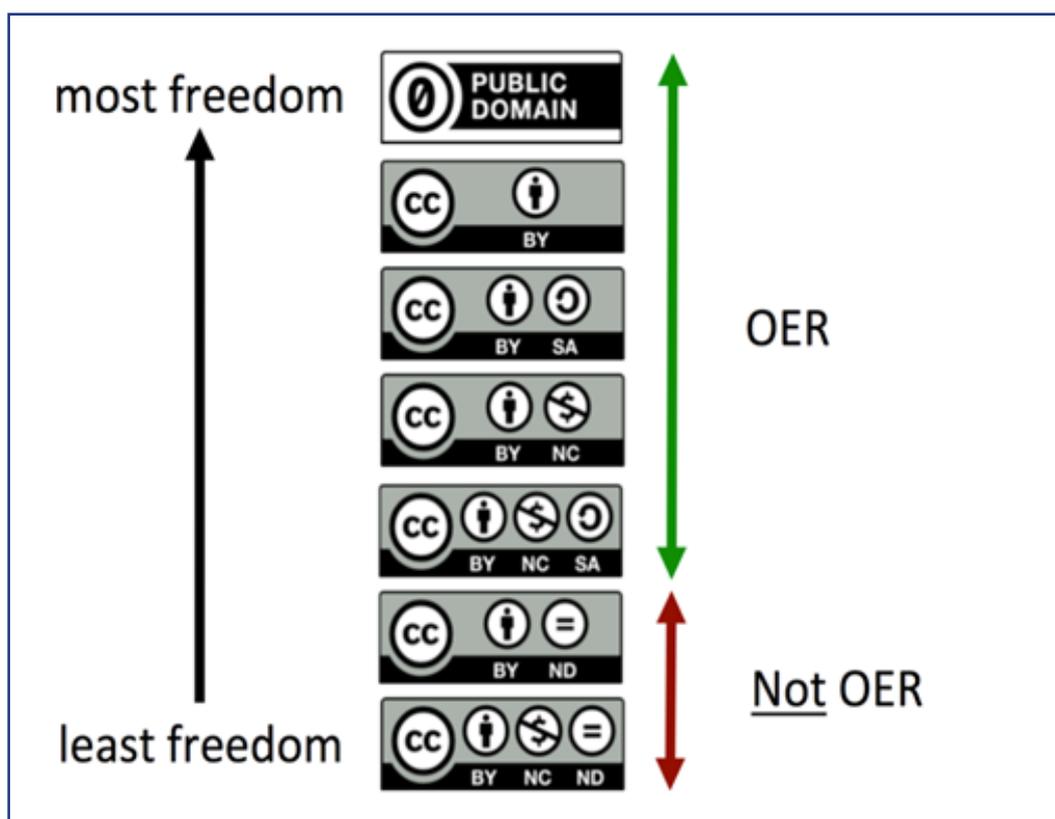
- The Commonwealth Education Hub, which maintains a search mechanism of millions of Open Education Resources: www.thecommonwealth-educationhub.net/practice-centre/find-tools-and-resources

The CC licences are expressed via an innovative three-layer approach:

- The 'lawyer-readable' layer is the legal text that makes the licence enforceable in court.
- The 'human-readable' layer is a simple summary of the legal text that communicates the main permission and conditions of the work to a general audience.
- The 'machine-readable' layer is metadata expressed in ways computers and search engines can understand that permit CC-licensed works to be searched for and discovered online.



- Commonwealth of Learning OASIS (oasis.col.org) and the Directory of Open Educational Resources (doer.colfinder.org)
- Open Education Consortium (Global): oeconsortium.org/courses
- OER World Map (Global): oerworldmap.org
- Creative Commons (Global): creativecommons.org/about/program-areas/education-oer/education-oer-resources
- OER Universitas (New Zealand): oeru.org
- WikiEducator (New Zealand): wikieducator.org
- OpenLearn (UK): open.edu/openlearn
- BCcampus Open Textbooks (Canada): bccampus.ca/open-textbook-project
- OER Africa (Africa): oerafrica.org
- Siyavula (South Africa): siyavula.com
- MIT OpenCourseware (US): ocw.mit.edu
- OpenStax (US): openstax.org
- Pratham Books (India): prathambooks.org



- TESS-India (India): www.tess-india.edu.in
- National Programme on Technology Enhanced Learning (India): nptel.ac.in
- Smartcopying (Australia): www.smartcopying.edu.au/open-education/open-education-resources/where-to-find-oer-materials/oer-in-australia.

What is an open education licensing policy?

An open education licensing policy is a publicly funded education resource (paid for by taxpayers' money) that is openly licensed by default.

Specifically, an open education licensing policy is an open licensing requirement in a government grant or contract that requires publicly funded educational resources to be openly licensed. The acceptance of public funds requires grantees (or recipients of taxpayers' funds) to share content developed with those funds broadly under an open licence.

For example, the US Department of Labor required a Creative Commons Attribution (CC BY) licence on all educational resources created in a US\$2 billion grant for community colleges to 'expand and improve their ability to deliver education and career training programs'. Because of this open education licensing policy, all of these publicly funded educational resources are openly licensed and shared in an OER repository.

Why might governments want to require open licences on publicly funded educational resources?

Because the bulk of education and research funding comes from taxpayer funds, it is essential to create, adopt and implement open education licensing policies. The public should have access to what it paid for, and should not be required to pay twice (or more) to access and use publicly funded educational resources. Every taxpayer in every country has a reasonable expectation to have access to educational materials and research products whose creation was made possible through public funding.

While governments typically retain a nonexclusive and irrevocable licence to reproduce, publish or otherwise use their grant-funded project materials for government purposes, government ministries and departments rarely exercise that government licence to provide the public with free and legal access to those publicly funded resources. The

adoption of CC licensing clarifies to the public how they may access, use and adapt publicly funded resources.

Do intergovernmental organisations support national-level adoption of open education licensing policies?

Yes. In June 2012, UNESCO and the Commonwealth of Learning convened the World OER Congress and released a 2012 Paris OER Declaration, which included a call for governments to 'encourage the open licensing of educational materials produced with public funds'. Slovenia, UNESCO, the Commonwealth of Learning, CC and other partners will convene a second World OER Congress in Slovenia in September 2017.

OECD recently released its 2015 report *Open Educational Resources: A Catalyst for Innovation*, which provides policy options to governments such as:

Regulate that all publically funded materials should be OER by default. Alternatively, the regulation could state that new educational resources should be based on existing OER, where possible ('reuse first' principle).

The Commonwealth of Learning helps national governments, provinces and education institutions create, adopt and implement open licensing policies - and has adopted its own open licensing policy whereby all Commonwealth of Learning created resources are shared under the CC Attribution-ShareAlike (BY-SA) licence.

Do open licensing policies respect copyright and the author?

Yes. CC licences are built on top of and encourage respect for copyright and copyright holders. CC licences are public copyright licences that grant permission to the public to reproduce, distribute, perform, display or adapt the licensed materials for any purpose, and typically contain a minimal set of conditions, such as the requirement that a user provide attribution to the author.

Do open licensing policies respect copyright and the author?

- Governments and other funders typically use standard (as opposed to custom) open licences in policies to:
- garner all of the benefits of a standard, global open copyright licence;

What are the benefits of requiring open licences on publicly funded resources?

- Government increases the impact, reach and scalability of its grants and contracts.
- Government creates conditions for maximum potential value created from all resources it funds, more efficiency and better stewardship of public funds.
- The public has access to the educational resources it funded.
- Innovative and entrepreneurial uses of openly licensed materials are enabled.
- Resources are available for anyone to reuse and add value, including individual citizens, educators, scientists, public sector employees, entrepreneurs and commercial businesses.

- ensure interoperability across and consistency within a government agency, foundation, and/or a community of users (e.g., open education); and
- prevent grantees or recipients from writing their own custom licences that are not interoperable with other existing openly licensed works.

While custom copyright licences can be developed to facilitate the development and use of OER, it may be easier to apply free-to-use, global standardised licences for that purpose. CC licences are an example of free-to-use, open copyright licences that have already been applied to more than 1 billion copyrighted works across 9 million websites.

What can governments do to support OER?

Governments can incorporate the recommendations in the 2012 Paris OER Declaration, which recommends that states, within their capacities and authority: •

- foster awareness and promote the use of OER to widen access to and the quality of education;
- facilitate information and communications technologies to access, develop and use digital OER;
- promote the development of policies for the production and use of OER within wider strategies for advancing education;

Where have open education licensing policies been adopted?

A number of countries, provinces and states have also adopted or announced open education policies relating to the creation, review, remix and/or adoption of OER. The OER Policy Registry lists over 130 national, state, province and institutional policies relating to OER, including policies like a national open licensing framework and a policy explicitly permitting public school teachers to share materials they create in the course of their employment under a CC licence.

New open policy projects like the Open Policy Network and the Institute for Open Leadership are well positioned to foster the creation, adoption and implementation of open policies and practices that advance the public good by supporting open policy advocates, organisations and policy makers, connecting open policy opportunities with assistance, and sharing open policy information.

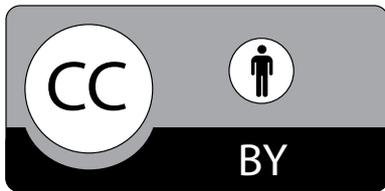
- promote the understanding and use of open licensing frameworks (e.g., CC);
- support capacity building for the sustainable development of high-quality OER;
- foster strategic alliances for OER among the education, industry, library, media and telecommunications sectors;
- encourage the development and adaptation of OER in local languages and cultural contexts;
- encourage research on OER; and
- facilitate finding, retrieving and sharing of OER
- encourage the open licensing of educational materials produced with public funds.

Conclusion

OER are slowly moving into mainstream education.

Governments have an opportunity to leverage OER to help all of their citizens access free, high-quality learning materials. Broad support for adopting OER will also help governments meet the goals of SDG4: ensuring inclusive and equitable quality education, and promoting lifelong learning opportunities for all.

When all educators are committed to free and open access to their educational resources, when the default on all publicly funded educational resources is 'open' and not 'closed', we will live in a world where everyone can attain all the education they desire.



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please email us at: eduhub@commonwealth.int or via the comment area at:

<https://www.thecommonwealth-educationhub.net/oer/>

End notes

- Hewlett Foundation, OER page: www.hewlett.org/programs/education/open-educational-resources
- UNESCO, Paris OER Declaration, 2012: www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/what-is-the-paris-oer-declaration
- UNESCO, Every Child Should Have a Textbook, Policy Paper 23, Global Monitoring Report, 2016, <http://unesdoc.unesco.org/images/0024/002433/243321E.pdf>
- Foundations for OER Strategy Development: www.oerstrategy.org/home/read-the-doc
- Several of the questions in this brief were adapted from FAQ: OER for Policymakers, adapted by Nicole Allen of SPARC from '#GoOpen: OER for K-12 Educators', www.tinyurl.com/GoOpen, by Doug Levin, also available under a CC BY licence.
- <https://oerworldmap.org>
- www.opencontent.org/definition/
- <http://openedgroup.org/review>
- See: <https://phet.colorado.edu/en/simulations/category/html>
- <https://www.col.org/resources/quality-assurance-guidelines-open-educational-resources-tips-framework>
- www.achieve.org/publications/achieve-oer-rubrics
- <https://creativecommons.org/licenses/by/4.0>
- <https://doleta.gov/taacct>
- See: <https://www.skillscommons.org>
- UNESCO, Paris OER Declaration, 2012: www.unesco.org/new/en/communication-and-information/events/calendar-of-events/events-websites/World-Open-Educational-Resources-Congress
- OECD, Open Educational Resources: A Catalyst for Innovation: www.oecd.org/edu/open-educational-resources-9789264247543-en.htm
- ibid. page 131
- <http://oasis.col.org/handle/11599/2360>
- <http://oasis.col.org/handle/11599/2361>
- <https://www.col.org/intellectual-property>
- State of the Commons report, 2015: <https://stateof.creativecommons.org/2015/>
- <http://oerpolicies.org>
- <https://openpolicynetwork.org>
- www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/what-is-the-paris-oer-declaration

