Open Licensing and Open Education Licensing Policy

Cable Green

Creative Commons, cable.green@gmail.com

Editors' Commentary

It would not be an overstatement to say that Creative Commons licenses provide the legal foundation for most of the open education movement. These licenses—free and easy to apply—provide educators, scholars, and artists the language with which to share their work on their own terms. In this chapter, author Cable Green provides a primer on the licenses themselves before going on to explore how public policymakers can leverage open licensing policies to effectively combat a range of challenges including high textbook costs and publicly-funded-yet-paywalled research.

Introduction

I work at Creative Commons (CC), as the Director of Open Education, because I seek to create a world in which the public has free, legal and unfettered access to effective, high quality education and research resources, and learning opportunities. I've spent my career working in post-secondary education and have seen students: take fewer courses because of the high cost of textbooks, go without required educational resources due to cost, and graduate with tens of thousands in debt. After learning about 'open education,' I decided to join the movement and help more learners access affordable, meaningful learning opportunities.

Open education is an idea, a set of content and a community which, properly leveraged, can help everyone in the world access free, high quality, open learning materials for the marginal cost of zero. We live in an age of information abundance where everyone, for the first time in human history, can potentially attain all the education they desire. The key to this sea change in learning is Open Educational Resources (OER). OER are educational materials that are distributed at no cost with legal permissions for the public to freely use, share, and build upon 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 license that permits their free use and re-purposing by others.[1] OER are possible because:

- educational resources are digital[2] 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; and
- Creative Commons licenses (and public domain tools) make it simple and legal to keep one's copyright and legally share educational resources with the world.

Today we can share effective education materials with the world for near zero cost. As such, I argue educators and governments supporting public education have a moral and ethical obligation to do so. After all, education is fundamentally about sharing knowledge and ideas. I believe OER will replace much of the expensive, proprietary content used in academic courses – it's only a matter of time. Shifting to this model will generate more equitable economic opportunities globally and social benefits without sacrificing quality of educational content. In this chapter, I will first discuss how 'open licensing' works and why it is a critical part of OER. We will then explore how and why governments and foundations (funders) are starting to use open educational licensing policies to require open licenses on educational resources they fund.

Open Licensing

Long before the internet was conceived, copyright law regulated the very activities the internet, cheap disc space and cloud computing make essentially free (copying, storing, and distributing). Consequently, the internet was born at a severe disadvantage, as preexisting copyright laws discouraged the public from realizing the full potential of the network.

Since the invention of the internet, copyright law has been 'strengthened' to further restrict the public's legal rights to copy and share on the internet[3]. For example, in 2012 the US Supreme Court on upheld the US Congress's right to extend copyright protection to millions of books, films, and musical compositions by foreign artists that once were free for public use. Lawrence Golan, a

University of Denver music professor and conductor who challenged the law on behalf of fellow conductors, academics and film historians said 'they could no long afford to play such works as Sergei Prokofiev's "Peter and the Wolf," which once was in the public domain but received copyright protection that significantly increased its cost.'[4]

While existing laws, old business models, and education content procurement practices make it difficult for teachers and learners to leverage the full power of the internet to access high-quality, affordable learning materials, OER can be freely retained (keep a copy), reused (use as is), revised (adapt, adjust, modify), remixed (mashup different content to create something new), and redistributed (share copies with others)[5] without breaking copyright law. OER allow the full technical power of the internet to be brought to bear on education. OER allow exactly what the internet enables: free sharing of educational resources with the world.[6]

What makes this legal sharing possible? Open licenses. The importance of open licensing in OER is simple. The key distinguishing characteristic of OER is its intellectual property license and the legal permissions the license grants the public to use, modify, and share it. If an educational resource is not clearly marked as being in the public domain or having an open license, it is not an OER. Some educators think sharing their digital resources online, for free, makes their content OER – it does not. Though it is OER if they go the extra step and add an open license to their work.

The most common way to openly license copyrighted education materials – making them OER – is to add a Creative Commons[7] license to the educational resource. CC licenses are standardized, free-to-use, open copyright licenses that have already been applied to more than 1.2 billion copyrighted works across 9 million websites.[8]

Collectively, CC licensed works constitute a class of educational works that are explicitly meant to be legally shared and reused with few restrictions. David Bollier writes:

> 'Like free software, the CC licenses paradoxically rely upon copyright law to legally protect the commons. The licenses use the rights of ownership granted by copyright law not to exclude others, but to invite them to share. The licenses recognize authors' interests in owning and controlling their work — but they also recognize that new creativity owes many social and intergenerational debts. Creativity is not something that emanates solely from the mind of the "romantic author," as copyright mythology has it; it also derives from artistic communities and previous generations of authors and artists. The CC licenses provide a legal means to allow works to circulate so that people can create something new. Share, reuse, and remix, legally, as Creative Commons puts it.'[9]

While custom copyright licenses can be developed to facilitate the development and use of OER, it may be easier to apply free-to-use, global standardized
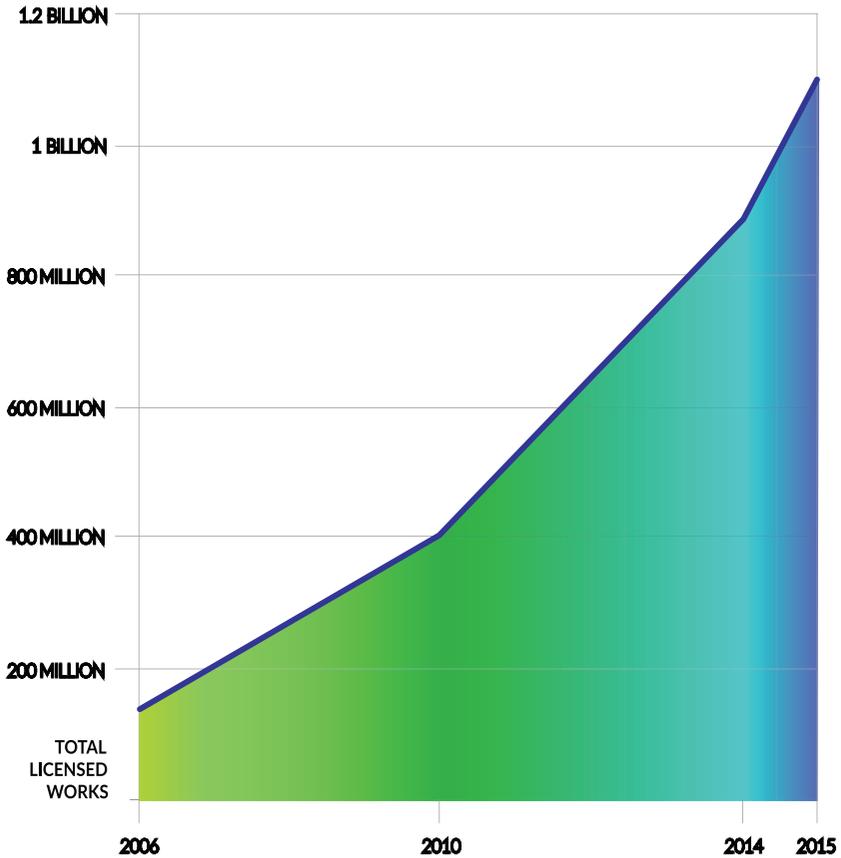
Fig. 1: Annual Growth of CC licensed works.

licenses developed specifically for that purpose, such as those developed by Creative Commons.[10]

Creative Commons Licenses

Because definitions of OER place such an emphasis on copyright permissions and licensing, a basic understanding Creative Commons licenses is critical to understanding OER. CCs open copyright licenses and tools forge a balance – allowing copyright holders to share their work – inside the traditional 'all rights reserved' setting that copyright law creates. CC licenses give everyone from individual creators to large companies and institutions a simple, standardized way to grant copyright permissions to their creative work.

All Creative Commons licenses have many important features in common:

- Every CC license helps creators retain copyright while allowing others to copy, distribute, and make some uses of their work – at least non-commercially.
- Every CC license also ensures licensors get the credit (attribution) for their work.
- Every CC license works around the world and lasts as long as applicable copyright lasts (because they are built on copyright).
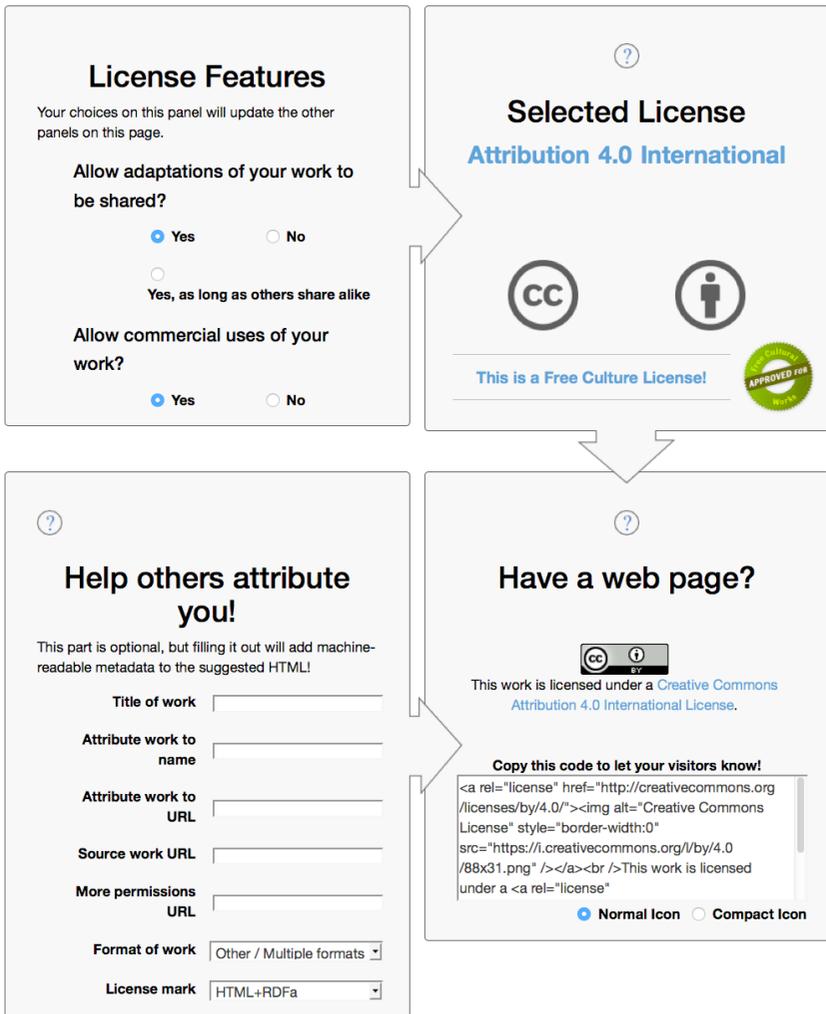
Fig. 2: Registering a CC licensee.

These common features serve as the baseline, on top of which authors can choose to grant additional permissions when deciding how they want their work to be used.

CC licenses do not affect freedoms that the law grants to users of creative works otherwise protected by copyright, such as exceptions and limitations to copyright law like fair dealing or fair use rights. CC licenses require the public to get permission to do any of the things with a work that the law reserves exclusively to a copyright holder and that the license does not expressly allow. Users of a CC licensed work must credit the author; keep copyright notices intact on all copies of the work, and link to the CC license deed (e.g., CC BY 4.0) from copies of the work. Users of CC licensed works also cannot use technological measures to restrict access to the work by others. For example, I cannot lock down your CC licensed music with digital rights management software to restrict others' use.

Anyone can get their CC license – at no cost – at CC's license chooser: http://creativecommons.org/choose It is worth mentioning there is no need to register your work to get a CC license.

The Licenses[11]

Fig. 3: The CC-BY license.

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Fig. 4: The CC-BY-Share Alike license.

Attribution-ShareAlike: CC BY-SA

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Fig. 5: The CC-BY-Non Commercial Use license.

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Fig. 6: The CC-BY-Non Commercial Use-Share Alike license.

Attribution-NonCommercial-ShareAlike: CC BY-NC-SA

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This license lets others remix, tweak, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms. MIT's OpenCourseWare project and the Khan Academy both use this license.

Fig. 7: The CC-BY-No Derivative works license.

Attribution-NoDerivs: CC BY-ND

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This license allows for redistribution, commercial and non-commercial, as long as it is passed along unchanged and in whole, with credit to you. This is not an OER compatible open license because the ND clause doesn't allow others to revise or remix the work.

Fig. 8: The CC-BY-Non Commercial Use- No Derivative works license.

Attribution-NonCommercial-NoDerivs: CC BY-NC-ND

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This license is the most restrictive of our six main licenses, only allowing others to download your works and share them with others as long as they credit you, but they cannot change them in any way or use them commercially. This is not an OER compatible open license because the ND clause does not allow others to revise or remix the work.

CC also provides tools that work in the 'all rights granted' space of the public domain. CCs CC0 tool allows licensors to waive all rights and place a work in the public domain, and the Public Domain Mark allows any web user to 'mark' a work as being in the public domain.

For OER, the use of CC licenses looks like this:
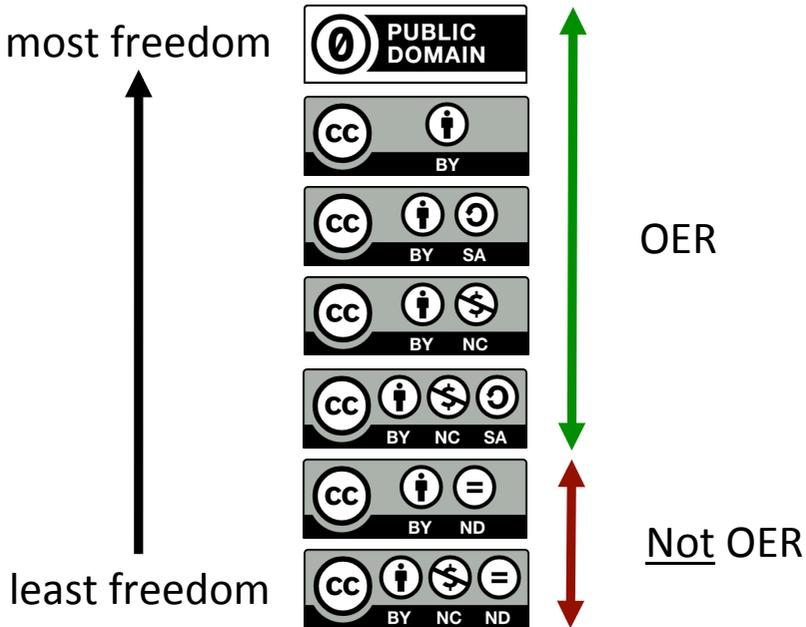
Fig. 9: CC licenses arranged from most to least permissive.

The two CC No Derivatives (ND) are not OER compatible licenses because they do not let the public revise or remix an educational resource. Because the ND licenses violate the 5Rs and every major OER definition, the open education movement does not call ND licensed educational resources 'OER.'

Now that we know what OER is and the role of open licensing in making OER 'open,' the next question is how to make OER the default content produced, adopted, used, and revised in education.

Open Education Licensing Policy

This section explores how public policymakers can leverage open licensing policies, and by extension OER, as a solution to high textbook costs, out-of-date educational resources and disappearing access to expensive, DRM[14] protected e-books. Education policy is about solving education problems for the public. If one of the roles of government is to ensure all of its citizens have access to effective, high-quality educational resources, then governments ought to employ current, proven legal, technical, and policy tools to ensure the most efficient and impactful use of public education funding.

Open education policies are laws, rules, and courses of action that facilitate the creation, use or improvement of OER. While this chapter only deals with open education licensing policies, there has also been significant open education resource-based (allocate resources directly to support OER), inducement (call for or incentivize actions to support OER), and framework (create pathways or remove barriers for action to support OER) open education policy work.[15]

Open education licensing policies insert open licensing requirements into existing funding systems (e.g., grants, contracts, or other agreements) that create educational resources, thereby making the content OER, and shifting the default on publicly funded educational resources from 'closed' to 'open.' This is a particularly strong education policy argument: if the public pays for education resources, the public should have the right to access and use those resources at no additional cost and with the full spectrum of legal rights necessary to engage in 5R activities.

My friend David Wiley likes to say 'if you buy one, you should get one.' David, like most of us, believes that when you buy something, you should actually get the thing you paid for. Provincial/state and national governments frequently fund the development of education and research resources through grants funded with taxpayer dollars. In other words, when a government gives a grant to a university to produce a water security degree program, you and I have already paid for it. Unfortunately, it is almost always the case that these publicly funded educational resources are commercialized in such a way that access is restricted to those who are willing to pay for them a second time. Why should we be required to pay a second time for the thing we've already paid for?[16]

Governments and other funding entities that wish to maximize the impacts of their education investments are moving toward open education licensing policies. National, provincial/state governments, and education systems all play a critical role in setting policies that drive education investments and have an interest in ensuring that public funding of education makes a meaningful, cost-effective contribution to socioeconomic development. Given this role, these policy-making entities are ideally positioned to require recipients of public funding to produce educational resources under an open license.

Let us be specific. Governments, foundations, and education systems/institutions can and should implement open education licensing policies by requiring open licenses on the educational resources produced with their funding. Strong open licensing policies make open licensing mandatory and apply a clear definition for open license, ideally using the Creative Commons Attribution (CC BY) license that grants full reuse rights provided the original author is attributed.

The good news is open education policies are happening! In June 2012, UNESCO convened a 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.'[17] UNESCO will be convening a second World OER Congress in Slovenia in 2017 to establish a 'normative

instrument on OER.' OECD recently released its 2015 report: 'Open Educational Resources: A Catalyst for Innovation'[18] 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).'[19]

As governments and foundations move to require the products of their grants and/or contracts be openly licensed, the implementation stage of these policies critical; open licensing policies should have systems in place to ensure that grantees comply with the policy, properly apply an open license to their work, and share an editable, accessible version of the OER in a public OER repository.[20]

A good example of an open education licensing policy done well is the US Department of Labor's 2010 Trade Adjustment Assistance Community College and Career Training Grant Program (TAACCCT) which committed US$2 billion in federal grant funding over four years to 'expand and improve their ability to deliver education and career training programs' (p.1). The intellectual property section of the grant program description requires that all educational materials created with grant funding be licensed under the Creative Commons Attribution (CC BY) license, and the Department required its grantees to deposit editable copies of the CC BY OER into skillscommons.org – a public open education repository.

A number of other nations, provinces and states have also adopted or announced open education policies relating to the creation, review, remix and/or adoption of OER. The Open Policy Registry[21] 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 license.

New open policy projects like the Open Policy Network[22] and the Institute for Open Leadership[23] 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, organizations, and policy makers, connecting open policy opportunities with assistance, and sharing open policy information.

Because the bulk of education and research funding comes from taxpayer dollars, it is essential to create, adopt and implement open education licensing policies. The traditional model of academic research publishing borders on scandalous. Every year, hundreds of billions in research and data are funded by the public through government grants, and then acquired at no cost by publishers who do not compensate a single author or peer reviewer, acquire all copyright rights, and then sell access to the publicly funded research back to the University and Colleges. In the US, the combined value of government, non-profit, and university-funded research in 2013 was over US$158 billion[24] — about a third of all the R&D in the United States that year.

As governments move to require open licensing policies, hundreds of billions of dollars of education and research resources will be freely and legally available to the public that paid for them. Every taxpayer – in every country – has a reasonable expectation of access to educational materials and research products whose creation tax dollars supported.

Conclusion

If we want OER to go mainstream; if we want a complete set of curated OER for all grade levels, in all subjects, in all languages, customized to meet local needs; if we want significant funding available for the creation, adoption and continuous updating of OER – then we need (1) universal awareness of and systematic support for open educational resources and (2) broad adoption of open education licensing policies. When all educators are passionate about free and open access to their educational resources, when we change the rules on the money, 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.

Notes

1 Hewlett Foundation: Open Educational Resources page: http://www.hewlett.org/programs/education/open-educational-resources.
2 Most OER are 'born' digital, thought OER can be made available to students in both digital and printed formats. Of course, digital OER are easier to share, modify, and redistribute, but being digital is not what makes something an OER or not.
3 Trans-Pacific Partnership Would Harm User Rights and the Commons: https://creativecommons.org/campaigns/trans-pacific-partnership-would-harm-user-rights-and-the-commons/
4 Washington Post: Supreme Court: Copyright can be extended to foreign works once in public domain. Robert Barnes: https://www.washingtonpost.com/politics/supreme-court-copyright-can-be-extended-to-foreign-works-once-in-public-domain/2012/01/18/gIQAbqbr8P_story.html.
5 https://www.opencontent.org/definition/.
6 Game Changers: Chapter 6: Why Openness in Education? https://library.educause.edu/resources/2012/5/chapter-6-why-openness-in-education.
7 For a short history of Creative Commons see: https://creativecommons.org/about/history/; for a full history on CC read: Viral Spiral – How the Commoners Built a Digital Republic of Their Own – David Bollier: http://bollier.org/viral-spiral-how-commoners-built-digital-republic-their-own.
8 2015 State of the Commons report: https://stateof.creativecommons.org/2015/.

⁹ Viral Spiral – How the Commoners Built a Digital Republic of Their Own – David Bollier: http://bollier.org/viral-spiral-how-commoners-built-digital-republic-their-own.

¹⁰ Note that Creative Commons (CC) licenses that include an ND clause (i.e., no derivatives) are not considered OER. For more information about CC licenses see: https://creativecommons.org/licenses/. For information about Open Source Initiative-approved licenses for software, see: https://opensource.org/licenses.

¹¹ https://creativecommons.org/licenses.

¹² http://albertaoer.com.

¹³ https://bccampus.ca/open-textbook-project.

¹⁴ Digital rights management (DRM) schemes are used to restrict access to and use and/or modification of copyrighted works.

¹⁵ For a full description of all four types of open education policies, see: Nicole Allen and Nick Shockey's 2014 Open Education Conference paper: Open Educational Resources and Public Policy: Overview and Opportunities http://conference.oeconsortium.org/2014/wp-content/uploads/2014/02/Paper_59-Policy.pdf.

¹⁶ Game Changers: Chapter 6: Why Openness in Education? https://library.educause.edu/resources/2012/5/chapter-6-why-openness-in-education.

¹⁷ 2012 Paris OER Declaration: http://www.unesco.org/new/en/communication-and-information/events/calendar-of-events/events-websites/World-Open-Educational-Resources-Congress.

¹⁸ OECD Open Educational Resources: A Catalyst for Innovation: http://www.oecd.org/edu/open-educational-resources-9789264247543-en.htm.

¹⁹ Page 131.

²⁰ For more detail on what governments should consider when implementing an open education licensing policy, see CCs 'Open Licensing Policy Toolkit' https://blog.creativecommons.org/2015/09/22/open-licensing-policy-toolkit-draft/.

²¹ http://oerpolicies.org.

²² https://openpolicynetwork.org.

²³ https://openpolicynetwork.org/iol.

²⁴ http://www.nsf.gov/statistics/2015/nsf15330/.