



OER and open licenses: the dual-pub solution

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Brief summary:

OER are 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 or re-purposing by others². The global standard for open licenses is the suite of Creative Commons (CC) licenses³; however, there are several different types of CC licenses, and deciding which licenses are appropriate for different circumstances remains a significant point of contention for the OER community. Herein, we recommend that the debate shift focus, from “Which license?” to “Which assets (and when)?” It is widely understood that only the CC BY license (and, in certain circumstances, the CC BY-SA license) provides users with all of the necessary permissions to build on a global learning commons⁴. Thus, we recommend that OER be licensed CC BY *plus* in an open format, but we accept that resource publishers may only want to publish a subset of their assets as OER, thereby retaining additional rights on key assets for technical and business reasons. We believe that this approach substantially simplifies the OER landscape, gives clear opportunities to build sustainability and value-add models around OER publishing, and will ultimately increase the impact of OER in transforming educational access and practice.

Background:

It is a measure of the poor fit of modern intellectual property (IP) laws to the technical capacities of the Internet that the open educational resources (OER) community continues to have contentious debates about the proper use of copyright licenses – especially “open” licenses such as those provided by Creative Commons^{5,6}. For the most part, this issue is a reflection of the societal challenges in moving from an analog to a digital world. But the debate has also been dominated by academic interests rather than coherent and tested application on the ground. In particular, organizations that are participating in the OER “movement” have struggled to identify practical methods for adhering to the underlying principles for OER while also achieving

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2 Atkins, D. E., Brown, J. S., Hammond, A. L. (2007). A Review of the Open Educational Resources (OER) Movement Achievements, Challenges, and New Opportunities. Retrieved from http://learn.creativecommons.org/wp-content/uploads/2008/03/areviewoftheopeneducationalresourcesoermovement_bloglink.pdf

3 <http://creativecommons.org/>

4 http://learn.creativecommons.org/wp-content/uploads/2009/07/ccLearn_primer-Why_CC_BY.pdf

5 Lowe, Charles (2010). Considerations for Creative Commons Licensing of Open Educational Resources: The Value of Copyleft. *In* Computers and Composition Online. Retrieved from <http://www.bgsu.edu/cconline/open/introduction.html>

6 http://sites.wiki.ubc.ca/opened09/index.php/Wiley_Downes_Dialogue

meaningful educational impact and stabilizing their operations. To the extent that adherence to OER principles requires the application of an open license to organizationally derived materials, this task has proven quite challenging – more than a decade after the OER concept was born, there are no proven models for achieving sustainability *and* unqualified, impactful OER production.

Among many other issues, there is a crucial conflict between among the presumed *adoption and access* benefits of OER versus the presumed *adaptation and republication* benefits of OER. For example, individual teachers and learners, the primary targets for OER production, appear to be more interested in deeply contextualized educational resources (e.g., fully assembled resources, or whole courses) than they are in bits and pieces of content (e.g., decontextualized learning objects). But deeply contextualized resources incorporate significant and expensive editorial and technical investments in their production which are not part and parcel of the core content (text, media, etc). Those same editorial investments tend to result in more complex resources which are less amenable to adaptation and improvement, at least by a typical user. Furthermore, distributing such deeply contextualized resources often requires rendering the media in formats which are essentially useless outside of the specific context in which they were originally provided – failure to provide the resources in such formats means that the resources may not reach the teachers and learners for whom the resources were created in the first place⁷.

This situation is analogous to the internal conflicts between the *prima facie* learning utility versus easy reusability/adaptability for learning objects, referred to as the “reusability paradox” by David Wiley^{8,9}. Traditionally, there are two ways of reacting to this paradox:

- 1) Only produce and publish OER in formats and via platforms that allow for reusability as per the licensing terms. In essence, this approach requires us to constrain our productions within the capacities of current and widely deployed technologies, and to leave aside the more complex , contextualized productions. We are likely to get reduced use and impact, but those who engage with the resources will be maximally empowered to re-use, adapt, and re-publish the resources.
- 2) Produce the deeply contextualized productions anyway, recognizing that any open license that is applied will often be symbolic since most potential re-users will have no capacity to do so (with the possible exception of well capitalized competitor institutions). We are likely to see greater uptake and impact, but little change in pedagogical practice or empowerment to participate in OER production.

In this report, we present an alternative solution for most, if not all, OER projects that develop and disseminate highly produced (i.e., “publication quality”) resources with deep context. This solution is based on what we currently understand about digital educational resources: how and for whom they are produced,

7 For example, some multimedia resources consist of time-synched text, audio, video, and interactive elements, seamlessly stitched together to function in tandem within a single (flash video or other format) file. Many users and institutions will only be in a position to use the final file format, perhaps for technical, business processing, or pedagogical reasons. The composite work is not really adaptable unless the component parts are provided separately, but even then the typical user will have no ability to stitch the adapted components back together to create a derivative composite.

8 Wiley, D. (2004). The Reusability Paradox. Retrieved from <http://classic-web.archive.org/web/20010602074007/http://rclt.usu.edu/whitepapers/paradox.html>

9 Wiley, D. (2003). Learning Objects: Difficulties and Opportunities. Retrieved from http://opencontent.org/docs/lo_do.pdf

how they are accessed and used, why people use them, and what conditions appear to be necessary for people to become “remixers” or co-producers of content. As laws and technology continue to change, these recommendations will probably need to be adapted as well, but we believe the proposed solution is sufficiently general to evolve as needed. Note that the recommendations here are oriented to projects which still utilize a sustainability model which depends, at least in part, on restricting access to and use of their intellectual property (IP). As a rule, we understand such projects to be in *transition*. Ultimately, it is our contention that all organizations operating in the OER ecosystem will need to implement sustainability models which have no constraints on content-based IP; for example, organizations can sustain themselves using service models, value-added delivery platforms, timeliness models (public release after an embargo period), and so on. We believe that the recommendations here can provide useful guidance to newcomers to the OER ecosystem, and can help existing OER practitioners to develop strategies for managing their transition to sustainability without getting held up by IP concerns.

Assumptions:

Our argument rests on the presumption that the following statements hold true:

- A) The vast majority of people who are likely to use and benefit from OER are *consumers*¹⁰. Even if they adapt materials for personal or educational use (as allowed by copyright exceptions and limitations in most jurisdictions), they remain consumers unless they re-publish their adaptations to a public forum.
- B) The likelihood of a resource being used, especially at scale, is directly related to the perceived quality of that resource. Resources provided with *deep context*, or which are *fully assembled* – often reflective of high-end editorial and publication processes – tend to be perceived as being of higher quality.
- C) Except in cases where the copyright terms have become a code for best practice (e.g., the share-alike term for collaborative, distributed production of Wikipedia), copyright licenses are generally a distraction, serving to confuse and dissuade rather than encourage and facilitate the use and re-use of resources for educational purposes. The use of open licenses that retain some rights and caveats, such as those CC licenses carrying the ND, NC, or SA terms, simply adds to the confusion for the typical educator.
- D) Ideally, the license terms and the distribution formats (technical specifications) of the resources should be in sync, meaning that a typical user can actually act on the resource in the manner permitted by the license.
- E) Most copyright concerns have to do with perceived institutional threats, not those from individual users. Currently, there is no open license which manages this distinction in any universally applicable and enforceable manner.
- F) Having to ask permission to do more with resources, especially if the agreement is between *institutions*, is not inherently problematic – the requirement is only an issue if the creator is not likely to be able to manage such requests at scale, such as if many *individuals* around the world

10 Duncan, S.M. (2009). Patterns of Learning Object Reuse in the Connexions Repository. Retrieved from the Internet Archive: <http://www.archive.org/details/PatternsOfLearningObjectReuseInTheConnexionsRepository>

want to localize and republish the resources on their own.

- G) The most compelling value of OER derives from the permission to *adapt and republish*, not from simple access and redistribution.

Summary of the solution:

Taken together, these statements allow us to recommend a generalizable course of action for OER-creating organizations. To wit:

We recommend that OER producers publish deeply contextualized, fully assembled (polished) productions separately from the decomposable parts, likely under different formats and terms where necessary. The separate parts can be thought of as “Lego blocks,” and some fraction, if not all, of these “blocks” should be published with a CC BY license, so that others can easily mix, match, and share their own creations made out of these reusable “blocks” of content. The polished production is the original, complete, and polished product made up of the “Lego blocks,” and it need not be openly licensed, let alone licensed CC BY. The polished productions will have immediate value to the majority of the target users and will drive uptake and impact. But those component parts that are separately published will serve to meet the needs of those who would prefer to re-use, customize, and perhaps reassemble specific parts of the resources. The component parts should ideally be provided in a manner that allows easy exercise of the rights granted by the CC BY license, thereby eliminating both legal and practical concerns that plague pseudo-openly licensed materials. Further, there should be some logic applied to which component parts are released in this manner, paying particular attention to the likelihood that the target audience will want and be able to adapt those parts *and* share those adaptations publicly.

One easy way to reinforce the value of these different asset pools is to liberally connect them to each other. For example, any resource within a deeply contextualized publication can be served with a link to “Get the adaptable version,” or something equivalent, which will take the user to the repository where the openly licensed and editable version of that resource resides. Similarly, browsers of the component parts can be provided with links to contextualized resources containing the component part or derivatives thereof, which allows users to see those parts in context. In either case, the value of the resource at hand is enhanced by the connection to the editable or polished form, as appropriate.

Comments, questions, and guidelines:

Why can't “deeply contextualized” publications just be produced and disseminated in a manner that also renders them amenable to adaptation and re-use?

This is indeed theoretically possible, but to date has proven difficult, and enormously expensive, in practice. The publication strategies and accompanying formatting, hosting, and business-modeling that would be required to “do it all” are substantially riskier and harder to formulate. That's not to say that we should not support such efforts, but we also cannot afford to delay near-term advances in the field for the sake of this particular difficulty.

As the OER ecosystem continues to mature, it seems likely that useful media, even if released in closed formats, will be picked up by members of the community and back-engineered to more open and editable formats. This is a desirable outcome, but it also undermines the premise that polished and difficult-to-edit productions can be “labeled” as OER (and licensed as such) without fear that they will be co-opted by outside interests. Until an organization is in a position to offer such resources without restriction, and ideally in a useful form, it seems reasonable to allow for heterogeneity of IP policies for different compositions of the content.

Won't the OER just be perceived as lower quality?

This is definitely a risk, though it hardly changes the current situation where OER are already widely perceived to be of lower quality than proprietary resources. Done correctly, the suggestion here could help to change this perspective, where the distinction is not based on “quality,” “completeness,” or other subjective measures, but is rather based on “adaptability,” “end-user utility,” and “amenability to localization, re-mixing, and re-publication.” By publishing fully assembled resources in tandem with some or all of their openly licensed subcomponents, we are giving evidence for how those subcomponents can be part and parcel of high quality, impactful educational resources, thereby increasing the likelihood that people will actually engage meaningfully with the OER.

How will the OER be maintained? Won't they just be cast aside by the publisher?

Publishing and maintaining OER which are available, openly licensed, and appropriately formatted takes time, expertise, and money. By explicitly focusing on the OER publication channel as a separate but complementary aspect of an OER project, we also allow for organizations to request support for managing those collections over time. In this sense, we are moving closer to the open-source software (OSS) model, where people are assigned to maintain and refresh forked code as long as that code serves the interests of the broader OSS community.

A simple way to minimize this concern is to capitalize on existing and stable content repositories, such as Connexions. Rather than hosting and maintaining a repository in each institution, an organization can deposit their OER into Connexions and maintain links back to the organization's site for context. This model benefits both parties, capitalizes on OER investments to date, and is in keeping with the general spirit of the OER movement.

Note too that this concern is partially premised on the notion that the producing organization will see the OER publication as a burden – something to be avoided, if possible. In fact, this is not the case for the vast majority of OER producers, who would like to be able to provide and support their OER in perpetuity. The solution suggested here provides greater clarity regarding their obligations to themselves, their funders, and the OER community. Finally, by encouraging a tighter fit between the open license and the technical aspects of the OER, it should be much easier for the OER to get repeatedly archived, both within and beyond the OER community, thereby ensuring that the investments made and the legacy of those OER are preserved for future use.

Does this mean that OER funders should only pay for the OER components, allowing organizations to pay for further production of those components separately (and thereby gain the right to license differently)?

The details of any specific application are subject to negotiation between the applicant and the funder, but the logic of this model presumes that both OER components and deeply contextualized composites (using those components) will be published, simultaneously if possible. Thus, it makes little sense to pay for component parts without the fully assembled productions available to meet immediate needs, serve as exemplars, and ensure that the resources are developed to high standards. If a request for proposals has no leeway for simultaneously publishing the content and its component parts under different licensing conditions, then it is quite likely that many otherwise interested and qualified organizations will decline to apply.

Additionally, we would argue that contractual constraints, rather than public licenses, are a preferred method of “protecting” philanthropic investments in OER and educational resources, in that they are simpler to understand and easier to execute. For example, a grant recipient could be required to provide the fully assembled resources for free, or in certain formats, or whatever else is of interest to the applicant and the funder. Violations of these terms would subject the grantee to rescission of the contract and the deposit of rights to the funded materials back to the sponsoring organization, after which they could be published however the funder wants. This seems far easier than requiring that the materials be released under multiple CC licenses, or under specific restrictive licenses, due to all of the points of confusion enumerated above.

Is this the only possible model for getting OER outputs while also getting high-quality educational resources?

Of course not, but it is one that meets the needs of many of the organizations participating in OER production today. It is expected that organizations will continue to explore alternative models, such as service models, membership models, and others, which will reduce or eliminate many of these licensing concerns.

One option, which has not been embraced by the OER movement but sees significant traction in the open access movement, is to allow for embargo periods on openly licensed content. The embargo could apply to the resources that are produced, and can also apply to the organization as a whole. For example, perhaps an organization has a business plan which (they hope) will lead it to sustainability in five years, but releasing their resources openly might undermine that plan. The organization could argue that they should be able to restrictively license their resources to start, with a contractual guarantee that the resources will then be re-licensed openly after a certain period of time. Perhaps the OER community can come up with a term for these transitional organizations, much like the “Transitional Organic” label for farms that are working towards organic practices but have not achieved certification.

How does this model work for multimedia and video objects which are not easily decomposable?

In the case of video and multimedia, as well as other less editable objects, this model easily applies to the extent that the individual multimedia objects can be re-mixed and re-contextualized as units. For example, a video-based course might consist of a series of videos stitched together along with sub-titles, course notes, and other associated media and metadata. The individual videos might be released openly in a separate repository. If the individual videos are the end products, then the producer will have a harder time segregating the assets according to this model and may need to build a model around fealty to their own delivery platform, or only release a fraction of their videos as OER, or take some other approach.

Why focus so much on “remix” and “re-publication”? Isn't the OER effort also about lowering costs and increasing access?

It is true that the OER effort encompasses a broad suite of interconnected goals, including: reducing educational costs, increasing access to high-quality and relevant resources, empowering teachers and learners to become remixers and co-creators of educational materials, improving pedagogical designs that incorporate meaningful engagement with materials as both producers and consumers, and so on. However, we have to ask ourselves which, if any, of these myriad goals actually *requires* a standardized, public license such as those provided by Creative Commons? In point of fact, one could argue that none of these aspirations requires such an open license. However, the permissions to adapt, re-mix, and republish are quickly rendered unworkable at scale without standardized licensing. If the only permission granted is to freely view or use a resource, that is quite easily granted in any number of ways – the added benefit of using a standardized, open license in this case is quite small.

There are some additional reasons to use Creative Commons licenses beyond their legal qualities, including their machine-readability (though this depends on proper application of the underlying code by the licensor), their symbology (though again, many people are unaware that there is more than one CC license, so the symbology may be just as confusing as it is useful), and their relative ease of application by non-lawyers. But debates around “Which license?” have not focused on these attributes, instead dwelling on the legal permissions granted. And it is only the permissions to adapt, re-mix, and re-publish that are truly unique to OER *and* depend intimately on the application of a suitable, standardized license. When we apply legal constraints to OER, such as through the use of one of the more restrictive CC licenses, we are essentially subverting one of the core goals of the OER effort, so it behooves us to develop strategies, such as the one suggested here, to overcome this conundrum.

Is all “remix” favored by CC BY? Can't remixing happen under other licenses?

One of the challenges we face as a community is that we frequently use terms which actually encapsulate multiple meanings. “Remix” is a good example of such a term. For some people, “remix” refers to the idea of mixing and matching component parts of compatible content; for example, someone might choose to use one image instead of another within a book chapter. Or someone might swap one chapter out of textbook in favor of a different version. In these cases, “remix” can be easily supported within an appropriate platform, and the requisite materials can be provided under any set of terms that enables users to remix in this manner. Thus, an open license may not even be necessary, let alone a CC BY license.

For other people, “remix” refers to the opportunity to revise, mix, and match heterogeneous content, likely from different providers. In this case, the remixer will be trying to create a coherent composite resource out of disparate pieces of content that were not necessarily created with that type of remix in mind. The remixer is probably going to have to invest substantial effort in rendering the objects compatible (in terms of content and technical details) and may also have to stitch things together with some newly created content. In these cases, negotiating among incompatible and/or restrictive licenses is a nearly impossible burden. If we really want people to remix in this manner, we need to have access to a large pool of useful and unrestricted resources, such as those licensed CC BY.

Why is this better than just using one of the more restrictive CC licenses, like CC BY-NC-SA?

The table below lists the different licenses offered by Creative Commons, in rough hierarchy (top to bottom) from most open to most restrictive. BY = Attribution. SA = Share-alike. NC = Non-commercial. ND = No derivatives. Note that Creative Commons also offers tools to effectively place a work into the public domain, which is technically the most “open” legal condition of all.

CC BY	Attribution is required.
CC BY-SA	Attribution is required and derivatives must be relicensed CC BY-SA.
CC BY-NC	Attribution is required and the work may not be used commercially.
CC BY-NC-SA	Attribution is required, the work may not be used commercially, and derivatives must be relicensed CC BY-NC-SA.
CC BY-ND	Attribution is required and no derivative works are allowed.
CC BY-NC-ND	Attribution is required, the work may not be used commercially, and no derivative works are allowed.

As you can see from the table, each of the licenses has different, specific terms which must be followed. If we have to point to a single overarching problem with the more restrictive licenses, it is that they are internally conflicted, often sowing confusion and acrimony rather than providing clarity and goodwill, which is presumably one of the rationales for using CC licenses in the first place. The non-commercial term, in particular, is nearly impossible to define objectively; thus, people and institutions, whether producers or users of so-licensed content, have seen fit to define “non-commercial” in whatever manner suits their interests. Regardless of whether these licenses are legally interoperable, and regardless of how a court of law might rule on any given use or interpretation, the non-commercial licenses force people to make legal determinations regarding the rights they have to the materials and to assume risks in the case of mistaken interpretations.

There will always be justifiable reasons for using different licenses – we are not arguing that people should not use more restrictive licenses where appropriate. However, such licenses cannot support a global learning commons that exhibits the unfettered capacity for adaptation and remix by anyone – this is understood to be one of the penultimate goals of the OER effort. Since many OER producers cannot or will not release their entire catalog under a CC BY license, the model proposed here provides a solution so that at least some of their materials can be released in this manner.

How does this model work with prosumer and other more distributed production models?

In many ways, the prosumer production model¹¹, and other forms of distributed production, are exemplars for what is possible when an unencumbered (legally and technically) pool of resources is available to build on. If we are talking about the possibility of a single organization building on large numbers of existing works to produce new composite resources, then the CC BY license can significantly reduce both transaction costs and risks for the producing organization. For example, more restrictive licenses may not work for their business model or may prove too difficult to reconcile if additional permissions must be

¹¹ <http://en.wikipedia.org/wiki/Prosumer>

obtained. If we are talking about a collaboratively produced and owned suite of composite works (such as you can now find in wiki-based communities such as Wikipedia¹², Wikieducator¹³, and others), then resources licensed CC BY work fine, but the CC BY-SA license may provide additional assurances to participants that their work will only ever contribute to the community and enlarge the resource pool. These situations really invert the typical producer/consumer relationship; as such, it is not clear if the recommendations made here apply.

Acknowledgements and errata:

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MITE is currently working to implement the suggestions made here. MITE publishes and distributes resources via Hippocampus, a free web-based portal, and also via the National Repository of Online Courses (NROC), a membership-based consortium of educational institutions and other partners. Since MITE's production processes to date have not been designed with this publication model in mind, we are expecting to encounter some difficulties and will be in transition to this model for some time to come. We are hoping to capture the challenges and solutions we find along the way and to share those to the broader field as well, perhaps paving the way for easier adoption by other organizations or insights on how to improve on this model. We welcome dialog and feedback from anyone and look forward to ongoing conversations about these issues.

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12 <http://www.wikipedia.org/>

13 <http://wikieducator.org/>