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# The importance of copyright and shared norms for credit in Open Educational Resources

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Open Educational Resources (OER) are reducing barriers to education while allowing creators the opportunity to share their work with the world and continue owning copyright of their work. To support new authors and adaptors in the OER space, we provide an overview of common considerations that creators and adaptors of OER should make with respect to issues related to copyright in the context of OER. Further, and importantly, a challenge in the OER space is ensuring that original creators receive appropriate credit for their work, while also respecting the credit of those who have adapted work. Thus, in addition to providing important considerations when it comes to the creation of open access works, we propose shared norms for ensuring appropriate attribution and credit for creators and adaptors of OER.

## KEYWORDS

open education, Open Educational Resources (OER), copyright, intellectual property (IP), authorship

## Introduction

Building an educational system that allows for full participation requires consideration of many factors, including financial and disability-related barriers limiting student engagement. One method for increasing accessibility is through the creation and use of Open Educational Resources (OER), in place of commercial textbooks, as the primary resource for university and college courses. OER are teaching, learning, and research materials that are either in the public domain or licensed in such a manner that provides everyone with free and perpetual access. OER can take many forms including videos, images, textbooks, online activities, quizzes, and demonstrations. Indeed, any educational resource available in the public domain, or licensed as open, can be classified as an OER.

The impact of OER in terms of student accessibility is substantial. In just Ontario, Canada, between March 2019 and January 2022, students saved an estimated \$13,641,448.84 because of open access resources being used over traditional textbooks (eCampus Ontario, n.d.). Further, OER creation tools often include integrated features

such alternative text for images, closed captioning for videos, font and color schemes that supporting those who may have perceptual difficulties, the ability for content to be presented in a variety of forms (e.g., EPUB, HTML, .pdf), and connectivity with common screen readers (though arguably, much more can be done; [Navarrette and Luján-Mora, 2018](#)).

Using OER is easier than one might think: one of the inherent benefits of OERs over traditional textbooks is that many already exist, and are easily edited to meet unique needs. While some authors may choose to develop new, original OER content in their area of expertise (similar to writing a book from scratch), others may choose to adapt existing OER to meet the needs of their students or intended audience. Unlike traditional academic publishing, reusing and adapting/editing existing OER work is possible and inherent in the OER space. Indeed, some argue that for a work to be considered an “official” OER, it must be made openly available and licensed in a way that meets a set of criteria known as the “5Rs” ([Creative Commons a, n.d.](#)): retain, reuse, revise, remix, redistribute. The “5Rs” are important as they govern the boundaries of OER. [Wiley and Hilton \(2018\)](#) describe the 5Rs in detail:

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

([Wiley and Hilton, 2018](#))

## Overview of the current work

There are many benefits to OER, and there are official guidelines for creation and adaptation. That said, the 5R framework can make the creation process complicated and confusing for authors. For example, many works can be “open,” but not follow all of the 5Rs (and thus not be considered as an “official” OER, though they still carry many important benefits for users). Further, OER and other open resources typically use creative commons (CC) licenses for sharing copyrighted materials. Many authors are unfamiliar with the nuances of creating, using, and citing CC licensed works. Failure to follow best practices in copyright and attribution can create significant consequences for both original authors, and those adapting works.

To address these concerns, we first provide an overview of the ways that authors may contribute to the use of OERs—by creating, adopting, or adapting works—and we describe common OER licensing agreements. Despite many advantages of publishing works through OER avenues, there are important challenges for academic OER content creators in relation to publication acknowledgment. Following a discussion of common considerations related to copyright, and significant consequences associated with failing to properly attribute creators, we next propose norms for ensuring clear attribution to original creators. Our aim is to help creators, adaptors, instructors, and administrators to better navigate the new frontier of OER, and to develop norms of acknowledgment that appropriately credit content creators and adaptors. To facilitate this, we have integrated OER resources into this work, demonstrating ways of both integrating and adapting other open work, and ensuring credit to original creators.

Although there are many benefits to OER for both authors and readers, they do represent a relatively novel form of content creation, and adaptation, for many potential users. A benefit (and, as we discuss later, a challenge) of OER is that the resources are “living,” or “evergreen,” documents. For example, after initial creation of an OER textbook, an author’s work may be adopted by one user (i.e., used “as is”), and may also be adapted by another (i.e., edited and then used). Indeed, the multiple uses of an OER are an indicator of its successful impact. Especially when work is adopted and adapted, it is important that works properly acknowledge the work of the original creator and previous adaptors.

A misunderstanding of the interplay between copyright and CC licenses, and the lack of best practices for ensuring proper citation, is a major issue for many OER authors, adaptors, and adopters. Poor practices in this area can lead to conflict between authors and may cause reputational harm for individuals accused of not providing sufficient credit to original creators, even in cases when authors were acting in good faith. This, in turn, may lead to fewer OERs being created and adopted, the opposite outcome that the 5Rs were designed to facilitate.

## Copyright and Open Educational Resources

Publishing practices with OER differ from typical scholarly publishing, and a basic understanding of copyright is critical to publishing literacy, and is required for anyone creating or working with OER. Copyright originally belongs to the creator(s) of a work. The creator(s) retains exclusive rights, including the right to produce or reproduce the work and adapt the work in another form. Creators also have the right to assign their rights to a third party. Assigning copyright to a third party is common in traditional scholarly publishing where the author of a journal, resource, or textbook is credited, but typically

assigns copyright to the publisher. The publisher can use these rights to both reproduce and market the work.

Just as in traditional scholarly publishing, in OER, the original creator(s) own copyright. The assigning of rights is also important in OER, though the mechanisms are different. Creators of OER must ensure that their work is made available in a way that respects the concept of openness, typically as expressed in the 5Rs. To do this, creators commonly use CC licenses to grant adopters and adaptors the right to use the work in ways that would otherwise be protected by copyright. A CC license provides clear guidelines for how copyrighted works, where copyright is retained by the creator(s), can be used by others (Creative Commons b, n.d.). CC licenses allow creators to overcome an inherent paradox between owning intellectual property, and wanting to share work freely:

*Like free software, the Creative Commons 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 Creative Commons 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.*

(Bollier, 2008, p. 14)

Thus, in contrast to traditional scholarly publishing, publishing in the "open" space allows creator(s) to both retain ownership over, and to also share freely, their work. Importantly, CC licenses vary in the degree to which they allow the use and adaptation boundaries for reuse. Thus, the use of these CC licenses brings a variety of considerations not familiar to many researchers and instructors as they differ from traditional forms of scholarship. For example, within some CC licenses, copying and pasting is heartily encouraged, and acknowledgment of that copied/pasted/shared work may not follow traditional citation styles. This can result in confusion regarding the operation of the various CC licenses. To introduce CC licensing types, we encourage readers to view Figure 1 which provides an overview of both CC licensing types, adapted from Creative Commons, and introductory considerations for users for each type of license.

As explained, CC licenses differ in their boundaries for adaptation, sharing, and use. As a result, when creating new works, or adapting existing works, questions frequently arise as to boundaries for what is possible based on license types used. Creative Commons c (n.d.) provides a comprehensive overview of how licenses can mix and match accessible via <https://creativecommons.org/faq/>.

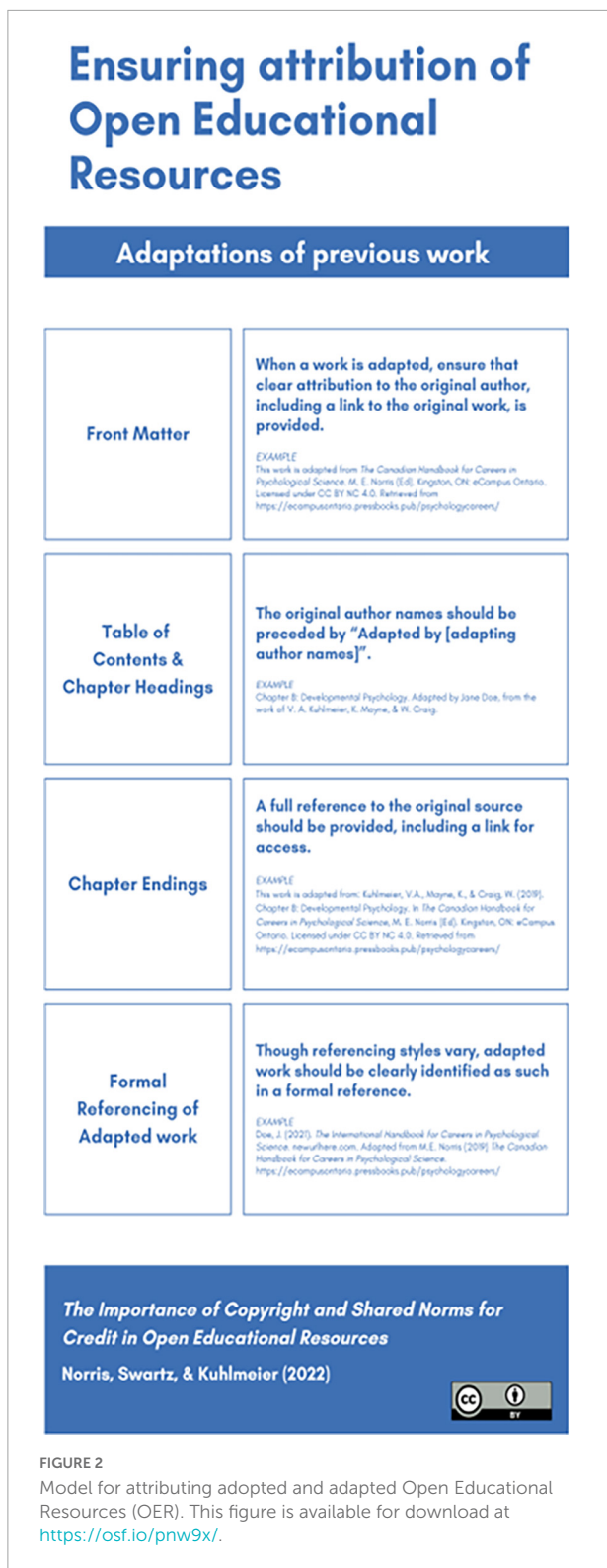


FIGURE 1

An overview of creative commons (CC) license types, with implications and considerations for users in comparison to traditional scholarly publishing. This figure is adapted for use from CC, <https://creativecommons.org/about/cclicenses/>. This figure is available for download at <https://osf.io/pnw9x/>.

## Ensuring attribution for Open Educational Resources

A strength, and challenge, of OER is that they can largely appear anywhere—adopters and adapters may integrate them into a course, they may be linked through websites, and so on. Although there are formal methods for recording when a resource is adopted/adapted with most OER hosts, these recording procedures are generally not accessible from the homepage of OER resources themselves, and recording is done on a voluntary basis. Thus, it is not always clear when accessing an OER whether the resource is created, adopted, or adapted, and thus attribution may not be obvious. Importantly, all types



Given the many ways that OER may be created and modified, there is a need for ensuring transparent credit is given to OER content creators and adaptors, both as a means of engaging in good scholarship, and as an acknowledgment of the publication and citation expectations for faculty and graduate students. Creators and adaptors are often experts working within an academic environment who are required to produce certain professional outputs within their discipline. Within academic systems, credit for authorship and intellectual property is extremely valuable, especially as it pertains to renewal, promotion, tenure, and the attainment of research funding. Early work in the open-access space clearly demonstrated faculty concerns regarding value for doing open-work in the context of promotion and tenure (e.g., Xia, 2010). Suggesting important shifts in this area, some institutions, such as the University of British Columbia, now explicitly recognize contributions of OER in reappointment, promotion, and tenure procedures (Yano, 2017). Thus, given the significant impact that OER work can have for careers, it is paramount that those doing high-quality, and high impact, work in the OER space are appropriately credited for their work. To help with the goal of ensuring proper credit is attributed for original creators, the CC provides helpful insight into how to attribute original authorships across a variety of types of media (Creative Commons Wiki, 2018). Indeed, CC makes it clear that adopted and adapted work must credit the original creator, based on the licensing requirements.

Respecting the attribution terms of the different iterations of CC licenses is crucially important, not only for formal recognition for the creator, but also to protect OER users from legal action. Perhaps not well recognized by many users of OER, there are some individuals with legal training, known as “copyleft trolls” who target users of CC licensed works using older CC licenses that may not be attributed properly. Importantly, users may be using the original work in appropriate ways consistent with open usage, yet the work has not been properly attributed. If a “copyleft troll” finds a user that has used a work without proper attribution, they will engage the user with legal action. The most significant example of this phenomenon is the case of Marco Verch, who hired photographers to take stock photographs, post them online using CC BY 2.0 licenses, and find users who did not respect the exact format of the attribution requirements built into the older CC licenses. He then sent those users invoices for their use (Doctorow, 2022). To mitigate the significant implications of this, the more recent CC licenses, posted since 2013, “allows correction and reinstatement of the license through proper attribution within 30 days of the discovery of the error” (Stewart, 2021, p. 1).

of creation are valuable: those adapting resources should have attribution credit. Indeed, attribution may be an important incentive for adapting existing work for new purposes.

Thus, to ensure proper scholarly practice, recognize professional academic expectations, and engage in legal use, is crucial to ensure proper attribution for OER works. CC recommends a simple formula, ensuring that any new, adopted, adapted, and remixed works include the original Title, Author, Source, and License (TASL) (Creative Commons Wiki, 2018). Although “title” is no longer required in the newest CC licenses, its inclusion is good practice for ensuring comprehensive attribution. All work should be clearly indicated as a derivative or adaptation if it is not an original piece of work.

Even with formal guidelines for attributions, in practice, adaptors of OER would benefit from further support regarding the format of attribution. Here, we propose norms, including examples, to ensure attribution is explicit for OER in adapted or remixed written works, including textbooks and journals. These proposed norms will ensure that both the original creators, and adaptors, are adequately credited. Inherent in these recommendations is the recommendation from CC to ensure that “(T)ASL” is included in all attributions. In Figure 2, we present a simple model for acknowledgment with the hope that it may form the basis of a new, shared norm of attribution. Importantly, we suggest that attribution should be in all of these locations within a work. Given OER can be remixed and shared in many ways, ensuring attribution at key points throughout a work will ensure attribution is clear if only selected pieces are shared (e.g., only one chapter is used). Additionally, as best practice, in addition to the norms for referencing presented below, we also recommend that adapting authors include a method of contacting the corresponding author in the event that there are concerns with an adaptation.

## Conclusion

Open Educational Resources (OER) have been demonstrated as strong tools to reduce barriers in higher education. The intention of this paper is to introduce publishing considerations for those creating and using OER, to highlight the need for all forms of OER to be properly attributed, and to propose recommended norms for how we can collectively ensure fair attribution for work. For OER infrastructure

to be both incentivizing for users and sustainable, there is a need for shared practices among users that ensure legal requirements are met, and that also reward all types of creators in terms of recognition.

The norms we propose create a method for a consistent attribution style that explicitly recognizes all types of creators—original authors, and those adapting content—for their valuable contributions to the OER space. Importantly, the norms we propose ensure that even if a work is shared only in part, the recognition of the original creator’s contribution is likely to be carried through. All types of creators provide generous and valuable contributions through their engagement with OER, and we hope that a shared community practice of formally recognizing all forms of participation will assist in ensuring formal recognition of diverse contributions, and also provide awareness of legal requirements to ensure legal protection for all types of creators.

## Author contributions

MN conceptualized this work. VK led the creation of figures. All authors participated in writing and revising this work, contributed to the article, and approved the submitted version.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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