ABSTRACT
This paper focuses on the ways educators can work within the guidelines of copyright while using digital media to develop educational content in legal and ethical ways by exploring several key contemporary trends in digital content creation. Educators need not create learning materials from scratch, as the pool of resources available via the internet, from educational publishers, or physically stored within schools serve as resources for the development of contextually relevant learning materials. Educators are increasingly becoming content creators, and with the development of digital literacies to support content creation, they can combine resources from multiple sources to meet the needs of their learners. This may be done to ensure a lesson is current, meet the needs of differentiated instruction and universal design for learning, to design learning materials that are engaging, and those that can be shared widely. In this digital media landscape, it is important for educators to know how to navigate digital media for use in developing curriculum or learning materials. By drawing on the digital literacies associated with copyright and open educational practices, educators can work within the guidelines of fair use, link and embed content, recognize and use openly licensed content, and explore resources from the public domain in legal and technically appropriate ways while developing learning materials. These approaches may impact educators’ design processes, while also demonstrating and modelling to learners the creative ways one can remix and share resources found on the web.
INTRODUCTION

There is a growing global demand for access to education and an impetus towards the development of innovative practices in teaching and learning that harness modern information and communication technologies. The Covid-19 Pandemic and quick pivot to emergency remote teaching have further exasperated this drive by requiring educators to, quite rapidly and with little preparation, support learning at a distance (Bozkurt et al. 2020). This has placed a tremendous burden on educational institutions and educators as well as learners and their parents.

Educators, whether providing emergency remote teaching or not, are increasingly engaging in teaching and learning content creation (Hu et al. 2018; Torphy & Drake 2019). From resources to be used in classrooms such as handouts, worksheets, lesson plans, presentations, and posters to online content such as websites, blogs, online learning environments, and social media; educators create a range of content to engage and communicate with their learners and school community. Many educators do not create learning material from scratch, as the pool of resources available via the internet, from educational publishers, or physically stored within schools serve as resources for the development of contextually relevant learning materials. While access to some of the world’s knowledge via the internet is becoming available, there is still a crucial need for educators to support learners by designing learning materials and engaging them in activities to support learning in specific contexts. As such, educators are often combining resources from multiple sources to meet the needs of their learners. This may be done to ensure a lesson is current, to meet the needs of differentiated instruction and universal design for learning, or to design learning materials that are engaging, interactive, and engaging to work with. By drawing on the digital literacies associated with the fair use of copyright resources, linking and embedding, and open educational practices, content creators can develop their ability to use materials sourced from the web in legal and technically appropriate ways that allow for creative outputs.

This work in progress paper examines and introduces the range of resources available to educational content creators, from those available for use under fair dealing, resources shared with open copyright licenses, those in the public domain, content that can be embedded from the source, and those with emergent licensing models. The longer term goal is to develop and refine curriculum to support the development of digital literacies for educational content creators, specifically in the context of teacher education.

THE NOTION OF EDUCATIONAL CONTENT CREATORS

Information and communication technologies have made us the most globally connected society in history. The internet enables the easy sharing of resources, thereby increasing access to information, but also enables anyone to quite easily source, create, and share content online, blurring the line between producers and consumers (Brown & Adler 2008). As a result, there is both an increase in the quantity of user generated content, as well as places in which one can share that content online (Conole & Culver 2010). Content creators are individuals that create digital media to serve a purpose, be it entertainment, creative endeavour, or knowledge production (Lenhart, Fallows & Horrigan 2004). Content creators create a variety of materials, for example blogs, vlogs, or memes and many are shared as a consequence of one’s own hobbies or interests, for example photography, gaming, graphic design, or videography. It has been suggested that in the modern age, we are all content creators, especially with the uptake of internet usage, social media, and the plethora of widely available online tools available for both creating and sharing content (Broke 2014). Bruns offered the term produsage to describe “the collaborative and continuous building and extending of existing content in pursuit of further improvement” (2008: 2), citing collaborative projects such as Wikipedia and open source software, as well as repositories of usable content such as Flickr, as examples. More current and popular social media examples of content creation include Tiktok, internet memes, video gaming/vlogging streams, and Photoshop editing contests.

Several scholars have addressed the process of content creation in the context of social media, yet not as frequently from the perspective of educators, and even less so in the context of K-12 educators. Researchers have focused on the emerging role of digital curation as teachers
create, locate, and remix digital content (Leighton & Griffioen 2021; Scott 2015). Others have examined how teachers engage in social media to locate resources, with several focusing on how teachers access Pinterest as a source for developing curriculum (Hu et al. 2018; Torphy et al. 2020; Torphy & Drake 2019). Additional studies explore online marketplaces for buying and selling teaching materials, such as TeachersPayTeachers.com, a resource where educators can buy and sell educational materials (Hu et al. 2018; Pittard 2017; Shelton et al. 2021; Shelton & Archambault 2019). These studies tend to focus more on the characteristics and motivations of those buying and selling educational materials within these marketplaces and less so on the process of content creation or adaptation. Remarkably, the issue of copyright is not raised within the aforementioned studies although reports of abuses of copyright are frequently cited as issues with online marketplaces such as TeachersPayTeachers.com and Amazon Inspire (now called Amazon Ignite) (Schwartz 2019; Singer 2016). In the case of both Pinterest and TeachersPayTeachers, scholars have found that teachers expressed perceived value inherent in the social nature of these platforms, for example, noting a sense of trust and credibility when locating a resource created by another, perhaps more experienced, teacher (Torphy & Drake 2019).

Still, educational content creators may find themselves in a position where they need to create content while adhering to appropriate copyright practices by using digital media they have themselves created, using materials available under fair dealing allowances, content licensed under Creative Commons, embedding or linking to material from the source, or using works found in the public domain. While this introduces complexity in the curriculum development process, educators are reported to believe that there is value in including multiple forms of digital media and that their use can be beneficial to learning (Leighton & Griffioen 2021). Without being able to recognize and locate materials in this way, educational content creators may miss out on opportunities to use creative work authored by others and are in a position where they are more likely to breach copyright (Czerniewicz 2016). This paper focuses on the ways educators can work within the guidelines of copyright while using digital media to develop educational content in legal and ethical ways.

THEORETICAL FRAMEWORK

Academic literacies have a long history of research in the area of teacher professionalism for both higher education and K-12 educators. Lea and Street (2006) for example, use academic literacies as a lens for considering how curriculum and educational activities are designed by educators. Academic literacies embody cultural and social practices, and individuals must recognize and adapt their practices based on the setting in which they find themselves (Lea & Street 1998). Traditional institutional academic literacies often vary widely from those found online or in social media settings. However, with appropriate contextualization, adaptation, and/or genre switching, resources from such environments may be used, remixed, and adapted to support teaching and learning.

An inherent challenge of studying digital literacies is that they change regularly, as technology, social norms, and policy evolve (Leu et al. 2017). The emerging digital literacies used in educational content creation represent an academic literacy, specifically applicable to future teachers using the internet as a source for curriculum and instructional material. Being able to appropriately source and ethically use the increasingly diverse digital media available to educators represents a contemporary academic literacy that needs attention in teacher education programs.

METHOD

This paper was prepared through desk research, based upon a review of the literature related to emerging approaches to curriculum development and curriculum development support documents. This work also draws from personal experience in supporting teachers navigating the internet as they source and develop educational content. This synoptic method was deemed appropriate in order to distill several contemporary trends and approaches to digital content creation and contribute commentary about emergent curriculum development practices (Scanlon 2021). It should be noted that this paper is a work in progress and is being used...
to develop a larger study that looks at teacher candidates’ awareness of these approaches to content creation. The study will provide evidence to develop curriculum that seeks to help introduce and provide activities that learners can use to practice these academic literacies when developing curriculum.

THE LANDSCAPE OF DIGITAL MEDIA CREATION

Learning activities, lesson plans, textbooks, presentations, simulations and other educational materials are typically used in learning activities to help mediate learning. Traditionally, educational publishers have offered printed copies of educational materials, usually at a cost, to schools and learners. In modern days, many of these materials are stored as digital resources and are still accessible via publishers. In most cases, materials provided by publishers fall under copyright and thus can only be used under the parameters of the copyright agreement made with the publisher.

The internet provides a space where anyone can store, share, tag, describe, search and locate resources in electronic form. As a result, many educators have come to share their personal educational materials online. Materials may be shared with copyright declared or not at all, in which case copyright is assumed. Alternatively, materials may be shared with explicit permission and allowances for others to reuse them, in some cases through the use of an open copyright license. Where explicit permission to reuse and adapt has been granted, these materials have evolved from what were originally called information or learning objects to be known as open educational resources (OER).

Originally, Hodgins (2000) termed information objects, in the context of education, as “the smallest useful piece of information that can be used and re-used, such as an illustration, a question, a definition, a procedure, or a sound” (Hodgins, 2000: 46). Information objects could represent some idea or knowledge in a readily sharable, reusable, small chunk of content. Hodgins’ vision was that these “knowledge building blocks” could be reused and combined to create a vast array of learning experiences tailored exactly to the learning context. Much of Hodgins’ early work was a vision of things to come; however it did not fully take into account the implications of educators reusing and combining educational materials created by others within different contexts.

The concept of “information objects” evolved into “learning objects” and the term was popularised by David Wiley in 2000. Wiley defined a learning object as “any digital resource that can be reused to support learning” (2000: 7). Many forms of digital resources can be easily copied, shared, and reused. A learning object can be as small as an image or diagram and as large as an entire course syllabus. Due to the object-oriented nature of learning objects, it has been proposed that a learning resource created for a particular context and pedagogical need might be useful verbatim or when adapted for another context (Wiley 2000). As many modern learning objects are, by their very nature, digital resources, they can be copied and distributed to many for use simultaneously, unlike physical educational resources.

This need for adaptability was aided in 2001 with the advent of Creative Commons, providing an alternative legal framework for specifying conditions for reuse of creative works. Creative Commons provided the vehicle for content creators to specify a licence for reuse of their content with “some rights reserved”, thus providing an alternative to the “all rights reserved” model of traditional copyright (Atkins, Brown & Hammond 2007). The first set of Creative Commons open licences launched in 2002 with the aim of enabling an economy of sharing via the internet (Batson, Paharia & Kumar 2008). The ambiguity of traditional copyright in the digital world had been eased with a simple form of licensing which, by default, gave any content creator attribution, while allowing others to make use of the material in their own context. Creative Commons is therefore not an alternative to copyright, but an alternative copyright management tool for people interested in sharing their creative works. Creative Commons licences finally gave the creators of learning materials a tool which they could apply to their works, allowing others to legally reuse their material by including explicit and easy to understand rules for how they could be reused by other educators. These resources, now licensed, may be appropriated by self-learners; used in the classroom, perhaps to create assignments or assessments; or mixed and combined to create resources driven by pedagogical needs (Metros & Bennett 2002). Many institutions, in the later part of the 20th century, began to look at ways of archiving and sharing
learning materials within their institutions. With an institutional repository of learning objects in place, it was proposed that educators could focus more on the processes of supporting learning and not on the production of content to support their teaching (Duncan 2003). Nowadays, many repositories for educational material have emerged, and allow educators to search for material by subject, grade, media type, modality, etc. As well, content specific repositories of openly licensed information objects are now available, making available resources such as graphics, photos, text, video, templates, animation, etc. These individual digital media objects can become resources for educators developing learning material.

EMERGING LITERACIES FOR DIGITAL CONTENT CREATION

In this complex landscape, it is important for educators to know how to navigate digital media for use in developing curriculum or learning materials. In most instances, simply finding a resource online does not mean it is adaptable or licensed for reuse. The inherent tension introduced by the internet is that while it facilitates the sourcing, sharing, downloading, copying, and remixing of digital materials, this still exists in parallel with copyright law. As Wiley (2012) aptly put it, the internet enables discovery, access, and downloading of materials while the rules of copyright still forbid much of this activity. Therefore, it is essential for educators to understand how to navigate and work appropriately in this landscape, and some have argued that the application of appropriate fair use practice contributes to mindful pedagogy while also demonstrating to learners how to make use of the web in appropriate ways (Jacob et al. 2021). Although the common practice may be to use the Google search engine as a first point of call for locating digital content, educators will be at an advantage in knowing how and where to look for content that can be legally reused, adapted, and re-shared, especially as alternative copyright systems are becoming much more commonplace. It is also important for educators to model the appropriate use of the internet to locate, use and reuse digital materials to their learners, especially as so many resources are now available with open copyright or public domain licenses.

NAVIGATING FAIR USE/DEALING

When accessing resources that fall under copyright, either by explicit declaration by the author, or where no copyright was indicated, educators must look to the fair dealing or fair use exceptions applicable to their context. Copyright is assumed, even if not explicitly stated within the material, as defined in the Berne Convention (World Intellectual Property Organization 1982). In many countries, fair use/dealing provides educators with an opportunity to use some copyright works within limitations often for the purpose of education with select groups of learners, but in most cases does not allow the ability to remix or modify the original. An understanding of the fair use/dealing regulations in the context of digital works, should be a critical digital literacy for educators. In Canada, the Council of Ministers of Education have provided some guidance for educators through their Copyright Matters publication (Noel & Snel 2016) as well as through their Fair Dealing Decision Tool (http://www.fairdealingdecisiontool.ca/DecisionTool/). These tools help educators understand what is possible under fair use/dealing, and determine how they can use works protected with copyright for teaching and learning.

Fair use/dealing allowances create opportunities for educators to use copyright works for the purpose of education but do not necessarily allow those works to be shared to wider audiences via the internet. So while these resources can be used for educational purposes with a limited group of learners, they should not be shared openly online. In an age where it is so simple to make a resource available online, educators should be aware of these limitations and consider using alternatively licensed material if they desire to share the resource beyond the bounds of their class.

USING EMBEDDABLE CONTENT

Where resources are found online but fall under copyright, either through an explicit declaration or when automatically assumed with no copyright declaration, educators may consider creating links to the original resource or embedding the content into their own works. In this way, resources can be accessed at the source without making a copy of the material.
Embedding content benefits the original content creator by generating interest in their material and directing web traffic to the source material without making a copy, while still allowing an educator to integrate the resource into their own teaching material.

Several caveats surface when linking or embedding content. First, the source material may be taken offline or change locations on the source website, resulting in dead links or modified/unexpected content over time. Many have experienced this phenomenon over time, where useful online resources they have bookmarked or saved disappear. This results in content ghosting, where useful resources are taken offline and may be challenging for educators to relocate. Second, materials may be presented with advertisements or other distracting content which make them more difficult to use in a teaching and learning activity.

Some online materials, such as YouTube video, SoundCloud links, photograph repositories, public social media posts/pages/groups can be embedded directly into content management systems such as WordPress and Drupal, and increasingly, as well, into virtual learning environments. This allows a content creator to abstract the source material from its original context and potential distractions (for instance within YouTube one sees related videos, comments, and advertisements) and combine the material into a teaching and learning resource. An example might be where a YouTube video is embedded on a webpage or within a presentation, combined with a set of instructions and questions to be used for a teaching and learning activity.

REUSING OPENLY LICENSED AND PUBLIC DOMAIN CONTENT

Creative Commons is the most common open license available applied to reusable digital media. In some cases, one can specify an open license when sharing material through content repositories such as YouTube or photo sharing sites such as Flickr. Increasingly educational content platforms also support the licenses, meaning you can search for openly licensed educational content for use and adaptation. Several such sites exist, with OERCommons (https://www.oercommons.org/) and Curriki (https://curriki.org/) being popular options for locating K-12 teaching and learning materials. Other options for educators to take note of are the widely used Wikipedia (https://en.wikipedia.org/) and Wikimedia (https://www.wikimedia.org/) repositories that provide a great deal of reusable and openly licensed content including text, images, audio, video, as well as relational metadata through hyperlinks to other articles.

Recognizing and understanding Creative Commons licenses and their meaning represents an important digital literacy for educational content creators. Wiley (2014) articulated a useful framework for defining the more specific activities around OER reuse which includes five key principles for content creators:

• Reuse – use the work verbatim, just exactly as you found it
• Revise – alter or transform the work so that it better meets your needs
• Remix – combine the (verbatim or altered) work with other works to better meet your needs
• Redistribute – share the verbatim work, the reworked work, or the remixed work with others
• Retain – make and maintain copies of the work

There are several excellent resources available for educators to become familiar with Creative Commons and alternative copyright models. Among several others, OER Africa maintains an online course that educators can explore (https://www.oerafrica.org/understanding-oer).

Alternative open licences beyond Creative Commons are also emerging on specific platforms. The widely popular photography website UnSplash, uses its own content license allowing free download, both commercial and non-commercial use, and no permissions or attributions required (UnSplash n.d.). While the CK-12 Foundation, a popular educational content repository uses its own Curriculum Materials License with many allowances, but requiring that derivative works be shared under the same license (CK-12 Foundation n.d.). While both of these resources contain useful materials for educational content creators, awareness of the specific license and allowances are yet another set of guidelines for educators to be aware of when sourcing content.
Material in the public domain represents another source for reusable materials. Many of these resources will be either older works that have fallen into the public domain or those that were created and released explicitly into the public domain by their author. Many resources now in the public domain were formerly commercially produced resources available for use without permission or a fee.

ATTRIBUTION OF MATERIALS SOURCED ONLINE

Whether used under fair dealing allowances, embedded, an open license, or the public domain referencing the source and authorship of the materials can benefit both the content creator and end user in being able to navigate to the source materials. Attribution is the most basic way to give thanks by acknowledging the original author of the work. Generally an attribution should include the title, author, link, and license of the source material if it is available. Increasingly, some services provide this information to content creators, Wikipedia and Unsplash provide a good example of this by creating the attribution text that can be copied when sourcing the material. Making attribution easy for individuals represents a positive step in supporting content creators with the practice of citation and attribution, while also benefiting the original author(s).

NAVIGATING DIGITAL MEDIA FORMATS

The file format of a resource can enable or hinder reuse, adaptation, and the ability to continue sharing an adaptation. Consider a resource created with proprietary or outdated software that requires specific tools in each instance the resource is used. As well, certain file formats are also less conducive to reuse and remix. The popular PDF format is generally locked from editing and it can be difficult to adapt or copy text for use in other formats. The broader issues around formats and standards for sharing materials therefore factor heavily on a resource’s suitability for reuse creating an argument for the use of an open standard and formats.

DISCUSSION

There is still much work to be done towards extending the literacies of appropriate digital content creation to educators and future generations of learners. Content creators may benefit from knowing how to make use of copyright resources within the guidelines of fair dealing and there are some excellent resources emerging to guide that practice (Jacob et al. 2021). In addition, where copyright resources can be linked to or embedded from the source, content creators can make use of these resources without making copies and while honoring the work of the original creator. Embedding content within learning environments allows an educator to strip out distracting elements associated with the source, such as advertisements or related content, and presenting the material with an instructional wrap that can support learners. Finally, as more content becomes available under open license and within the public domain, an opportunity exists to build new materials with these resources, as they are licensed and legally available for reuse.

Anecdotally, I notice that many novice educational content creators are missing the needed lens to examine internet resources with these opportunities for creative adaptation in mind. For educational content creators, this lens may support expedited content creation by enabling them to draw upon existing reusable resources found on the internet. Many resources exist that can be reused if one knows how to locate them, and what to watch for in terms of licensing and format. Importantly, content creators should consider designing with the end in mind. For example, if one intends to share their creations widely, they might need to change their design strategies to include resources they can freely and legally share within their creations. This change in workflow needs to be considered in advance of the content creation activity, as it impacts the process of sourcing, attributing, and preparing new materials, adaptations, or revisions (Paskevicius & Irvine 2019). Figure 1 provides a visual to distil the types of different content sources, the issues to consider, and the potential opportunities to share those newly created works.
If and when these approaches to content creation become the default is uncertain, however building an awareness of these digital literacies into teacher education programs and professional development opportunities for educators is one step towards mainstreaming open educational practices and increasing the potential for sharing educational resources more widely. As well, educators are in an excellent position to model appropriate content creation processes and activities to their learners through the development of their own educational materials. It would also be advantageous to provide explicit opportunities for learners to engage with these digital literacies related to content creation, drawing upon fair dealing, embeddable content, open licenses, and the public domain.

CONCLUSION

This paper focused on the ways educators can work within the guidelines of copyright while using digital media to develop educational content in legal and ethical ways. The forms of multimedia continue to evolve, standards and formats shift, curriculum changes, and school and learner expectations change. Open licences and repositories are shifting as well, with several content providers developing their own reuse licenses based on their preferred terms of use and reuse. As well, at least one popular repository for locating images, UnSplash, has been purchased by a large visual media company which has traditionally sold stock photography (Schneider 2021). Only time will tell if this acquisition leads to changes in the way that UnSplash makes content available for reuse.

As a result of these and future shifts to content provision and licensing online, the ability for educators to appropriately source and ethically use the increasingly diverse digital media available to them represents a contemporary academic literacy. Educators report that the inclusion of digital resources in their curriculum materials is important and can be beneficial for student learning (Leighton & Griffioen 2021). Developing and maintaining the digital literacies to work appropriately with digital media requires they be grounded in teacher education programs and fostered through ongoing professional development.

Lastly, while preparing this paper, the latest trend in digital content is the use of non-fungible tokens (NFT) which can identify the original source of a digital resource. These use cryptographic technologies to represent unique digital media source objects that can be transferred and owned, and some individuals are purchasing them at great cost. The artist Beeple, who has for many years shared their digital creations with Creative Commons licences, was one of the artists who managed to sell their work as an NFT for nearly 70 million dollars (Howcroft 2021). The idea that one could own an NFT introduces a form of artificial scarcity among digital objects that technically are easily copied and distributed (O’Dwyer 2020). It is interesting to note that Beeple has shared digital creations widely on the internet, and in many cases made them legally reusable, but individuals were still willing to purchase an original source copy. This is a positive move for digital content creators, who can both share their work, gain notoriety, and potentially make a living from their creations. The first two benefits apply to educational content creators as well, as sharing content can lead to networking opportunities and interesting remixes. We will have to wait and see if digital educational materials or OER become shared and valued as NFT and if they do on a large scale that will certainly change the way educators are able to access digital educational content.
COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR AFFILIATION

Michael Paskevicius

University of Victoria, CA

REFERENCES


