ecampus Ontario

Considerations for Integrating Generative AI Usage in the Futures of Open Education

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Introduction

This resource is intended to provide support for those creating open education materials in an age with Generative Artificial Intelligence (GenAI). As GenAI becomes more pervasive in our lives, there are questions about the ethics of the use of GenAI in the open education space, how it interacts with existing licensing frameworks, and its legal status within the law with respect to ownership of Intellectual Property (IP), such as Open Education Resources (OER).

The research that informs this resource examines the intersection of Open Education Resources and the training of generative AI models. Open education practitioners worry that AI models trained on public data is infringing on their intellectual property by training on the OER they created without their consent. Many organizations and software companies have released statements, policies, and guidelines on the use of AI in and with their data. We examined existing regulations that currently exist protecting IP from GenAI intake, the legality of using GenAI to adapt or remix an OER, existing practices regarding the use of GenAI in open education, and how open education practitioners are currently navigating this complex area.

Methodology

To develop this resource, we conducted an environmental scan of current laws—in Canadian jurisdictions and abroad—about IP and its intersection with GenAI. We held a specific focus on the Canadian context. We also investigated existing licensing frameworks—specifically the main one, Creative Commons—to understand the open licensing landscape and how they are operating with GenAI. We also asked open education practitioners in Ontario directly about their experiences, views, and usage of GenAI and open education. In this way, we are able to capture both theory and praxis within our suggested considerations.

Considerations

This resource was developed to support decision-making by open education practitioners on how to use Generative AI in OER creation. It has likewise been informed by an environmental scan that researched the intersection of Intellectual Property law and Generative AI in legal systems with a specific focus on Canada. It was likewise informed by a survey of open education practitioners in Ontario to hear about their experiences and concerns.

These recommendations serve to act as considerations for anyone interested in using generative AI in their OER creation or adaption. They are by no means prescriptive. Similarly, they are by no means exhaustive. This is a space that is rapidly evolving.

AI and Data

1. **Respecting Privacy:** We encourage the use of a localized AI model when working with data that may involve personal, private, or sensitive information. Doing so positions the AI model on a personal computer without sending it back to an AI company, limiting a risk of leakage of said data. Any usage of AI has a risk to prove damaging when using such data.

OER Creation

2. **AI Usage Disclosure Statement:** Consider writing an AI-use disclosure statement in all OER where AI has been used in any form and for any reason. This statement should describe what AI was used, how it was used, and for what tasks. This will allow potential adopters to understand how AI was used and choose whether to adopt or not based on their comfort with how AI was used.

3. **Human Review:** Consider reviewing or have peers review any work generated by AI used in their OER. AI is not immune from errors, so a review of what was created is important to ascertain the veracity and import of the OER.

Licensing

4. **Protections:** Consider providing guidance on how your OER can be used by AI within the licensing agreement. This includes AI being used to modify, adapt, or remix the OER. To do this, the licensing agreement should include acceptable usage of AI.

5. **Use of Creative Commons Signals:** Consider using Creative Commons Signals to indicate how an OER can be used by AI. The clearest emerging framework for governing AI usage in open education is Creative Commons Signals—created by the largest and most accepted open licensing group—which relies on community uptake and understanding for their widespread clarity. The more widespread the use, the clearer it becomes in setting limits on how OER can be used by AI. While there are various levels of Creative Commons Signals, the Credit signal can be applied in conjunction with others—consider using this one at all times. You can read more about Creative Commons Signals and their usage with AI here: https://creativecommons.org/ai-and-the-commons/.

IP and Copyright Law

6. **Human-led, AI-supported:** Currently in Canadian Law, Intellectual Property ownership can only be given to humans for things of their own creation. Consider then, that the majority of the creation of an OER's creation be performed by humans and not by AI. This specifically means that text, images, and datasets should be created by a human in order to retain IP ownership.

7. **Understand Your Rights:** We encourage OER creators to read and understand their intellectual property rights and obtain clarity on licensing by reading and researching more. Some starting points include Canada's Intellectual Property Office (https://ised-isde.canada.ca/site/canadian-intellectual-property-office/en) and Intellectual Property Ontario (https://ip-ontario.ca/) for IP and Creative Commons (https://creativecommons.org/share-your-work/cclicenses/) for licensing.

Background

Generative AI and Canadian IP Law

Intellectual property is something that someone has created that is intangible. Under Canada's Copyright Act at the time of writing, human creation is implied to be required for the creation to be considered someone's intellectual property. IP may be inventive or valuable to business. IP rights are legal protections afforded to secure ownership. Intellectual Property under law in Canada includes patents, trademarks, copyrights, industrial designs, and trade secrets, all of which differ (Intellectual Property Ontario 2025). Human-made creations are automatically given copyright protection under Canadian law per the Berne Convention (Desjardins, Episode 26 2023).

In the Open Education (OE) space, IP law generally covers intellectual property itself—the right to a created idea. This is covered by Copyright (governed by the Copyright Act and under international treaties like the Berne Convention) for creative works such as webpages or code is the most valuable. Copyright affords someone the exclusive legal right to (re)produce, publish, or perform a literary, artistic, dramatic, or musical work. Authorship is afforded to the original creators. If the item was made during employment, it may be owned by the employer, however. For work to be used or copied, the rights may be licensed or bought. Copyright in Canada has two rights associated with it: the moral ability to receive credit to a given name or stay anonymous, and the economic right to make money and have exclusive uses (CIPO, 2025).

Right now, copyright law requires that the item be human made. Legal systems are grappling with the impact that GenAI may have on this area. In the United States, the US Copyright Office requires human authorship per a 2023 ruling, meaning that artifacts created by GenAI are not copyrightable. If the AI generated piece is transformed significantly by a human in a creative way, then it may be eligible for copyright (CIPO, 2025). Other global frameworks are applying their own ideas, as in the European Union and China, informed by their local cultural context. As there is no AI specific scheme in the Copyright Act, the main legal questions right now are: how much human contribution allows for something to be protected by IP laws and if someone created something using AI and prompts, who owns IP to that, if anyone (Desjardins, Episode 26 2023). Related to the ability to copyright something, since copyright protections in Canada last until for 70 years after the creator's death, the creator must be able to die. These laws exist for creators to be given compensation for their time and effort. Thus, the idea is that AI-assisted content with human involvement can be copyrighted, but items created by AI-alone cannot be.

CIPO automatically grants copyright applications—and IP rights are automatically conferred on the creator per the Berne Convention—so could AI be an author if listed? The requirement for human creation is not explicit in the Copyright Act. The legitimacy of AI authorship for copyright purposes has yet to be tested in the Canadian court system. The prevailing current legal view is that, in Canada, copyright and IP only extend to human-made works. Moving forward to account for AI-created works, options include keeping that focus, attributing authorship and copyright protections to AI generated works but for the person who did the prompting, or creating a new set of rights for AI-generated works altogether (Kriel and Paczko, 2024). Based on a survey and roundtable discussions with Canadians parties of interest, including those who make creative works and those who operate in the AI space, it is most likely the first option will be undertaken.

Generative AI models may undertake IP infringement. They may have been trained on material that infringes on copyright, which it draws on in its generating. Who is to be held liable is unclear, as it differs by infringement risk and jurisdiction. Legal frameworks are unclear on how to interact with AI and the data they use in their decision making.

Based on research conducted by the Government of Canada, people seek clarity on AI training as it relates to infringing copyright: if it does and how. People also seek transparency regarding what goes into AI training, but this is difficult and could reveal trade secrets—themselves protected by IP law—although makes it copyright infringement clearer to identity. People would like human authorship to continue to be central, with AI as a tool in creation only instead; perhaps CIPO should require a disclosure for AI use, with AI-generated elements as non-copyrightable (Government of Canada). For changes in the law to be clear on AI and IP/copyright, we require stronger tests, consensus on who is liable, and transparency. People support labelling AI-generated content and have concern over the unlicensed use of their likeness via deepfakes (Government of Canada 2025).

Licensing

Licensing allows the use of an IP—in part or in full—by a third party. These are generally agreed upon agreements, often in the Creative Commons framework. They govern how IP may be used by others, including in what contexts, in what jurisdictions, and how modifications can be made and/or shared (Intellectual Property Ontario 2025). Some AI system use licenses inspired by open-source software licenses that stipulate how data can be used are being created and adopted (CIPO, 2025).

Generative AI is trained on lots of data, which requires intensive labelling by humans for the AI to understand it. The legislation around what AI can be trained on is unclear right now, as the Copyright Act does not address the use of data by an AI. It may be legal. AI platforms "data scape" the internet for data to ingest; however, in doing so they also potentially ingest copyrighted material. Due to the amount of data being ingested, getting permission to use it all is a problem. S29 of the Copyright Act allows for Fair Use for certain purposes. AI learning may fall under this to promote innovation: there is currently a pending court and Parliamentary review, including the ownership of AI art (CIPO, 2025). In many cases, fair dealing exemptions do not cover AI development and use. Indeed, AI developers often use data as information to train an AI by not reading or understanding the contracts, taking "open" at face value (Desjardins, Episode 15 2022). Licenses, if not a clear Creative Commons license, may be drafted by non-lawyers and thus be homebrew—not all open-source licensing, including in Open Education, is the same (Desjardins, Episode 16 2022).

Creative Commons licenses are copyright licenses intended to provide guidance on how a work can be used (Hinchliffe Pearson 2025). CC-ShareAlike does not protect against use in AI in its terms (Desjardins, Episode 15 2022). Thus, with the rise of AI, Creative Commons has introduced a new part of licenses: signals, noting that the existing licensing framework was not adequate for dealing with Open Access and limiting AI ingestion simultaneously. Signals are designed to support user signalling of preferences for how content can be reused by AI as a technical and legal tool. They have been built for both machine and human readability. Enforceability remains ranged, between its ethical weight, normative weight, and legal weight in different jurisdictions. Creators do not want their creations to be used by AI without their consent. Creative Commons Signals builds on this, attempting to facilitate agency for creators where copyright is unclear and to mitigate the threat of AI companies to the future of the commons. Signals are not for those who want to opt-out of the ecosystem (requires pay walling their materials, at best), but rather for those who want to express nuances (Creative Commons, CC Signals; Creative Commons, Social Contract 2025; Creative Commons, Why CC Signals, 2025).

Creative Commons Signals launched in July 2025 and remain in their infancy. They are built on key concepts in AI data: consent, compensation, and credit. They exist to demand reciprocity from AI developers via a standardized and machine-readable format. There are four types of signals that can be applied to a license.

- Credit: requires giving credit based on method/means/context of data
- Direct Contribution: must provide compensation to the IP owner for the use
- Ecosystem Contribution: must provide some compensation to the ecosystem
- Open: the AI system must be open (Creative Commons, CC Signals Implementation)

Only one of the latter three signals can be applied at a time. The credit signal can be applied overlapping with any of the others. Common uses include for text/data mining, training, training generative AI, or AI inferencing. These concepts come from the Internet Engineering Task Force, not Creative Commons. Signals themselves will require participation from AI developers, not just open content creators (Creative Commons, CC Signals Implementation).

Some groups of researchers and creators are encouraging the disclosure of AI in creations. These may take the form of a statement, an image illustrating the level of AI usage, or within the licensing itself (Peters 2023; Benjamin et al. 2019)

To protect the digital commons, Open Future proposes a levy on commercial AI systems trained on public information to support creators, open content platforms, and the development of public AI systems. These views hinge on the ideas: that AI's impacts on knowledge are currently unknown but having control over knowledge is so important, that we need public AI models like public broadcasters, that there should be diverse actors in the information ecosystem, and that economic sustainability requires redistribution beyond copyright and new creations. The idea is to recognize value of AI but continue to support those who sustain it. People should also be able to withdraw from the use of AI as in the EU, via Creative Commons Signals licensing, or making changes in copyright law regarding AI training (Keller 2025).

Perspectives from Practitioners in Ontario

To augment the findings of the researched environmental scan, we also spoke directly in the form of a short survey to open education practitioners in Ontario to inform the development of these guidelines. In the end, upon the closure of the survey, we had 52 responses from Ontario open education practitioners from a total of 25 different publicly funded institutions in Ontario. Respondents have participated in open education in a myriad of ways, including creating, supporting the creation of, adopting, supporting the adoption of, adapting, or supporting the adapting of an OER, or attending a webinar related to Open Education. Respondents reported high levels of familiarity with generative AI. Respondents also reported similar levels familiarity with Canadian IP law and licensing. Generally, respondents are slightly or not at all comfortable with using GenAI in OER creation or adaption, including when using GenAI for OER in their own classrooms. Many are only slightly or not at all willing to allowing their creations to be used in Generation AI training.

For personal use, a majority of respondents have not used GenAI in the creation of OER. Those who have mainly used it to create images, scenarios, and ancillary resources, including summarized based on human created work. Less than a sixth of responses have used GenAI in adapting or remixing OER, mainly for translation and generating new text and images. About a quarter of respondents have used a localized AI model that runs on their own hardware for brainstorming, experimenting with AI, and to protect privacy and sensitive data.

Similarly, respondents echo our wonderings: who retains copyright with multiple stakeholders at the intersection of generative AI and copyright.

We asked respondents about their views regarding the usage of OER they created to train Generative AI. Respondents generally agree (53%) that Generative AI models can be trained on Open Education materials due to their open nature. However, respondents generally disagreed (55%) that training Generative AI models on OER should be considered remixing. Despite agreeing that Generative AI models can be trained on OER due to their open nature, a majority of respondents agree (61%) that Generative AI is infringing on their IP rights if it is trained on OER they created without their consent. This highlights the importance of a shared licensing language that incorporates how Generative AI can use Open Education materials. Respondents are split on whether they should be compensated for the use of their OER in Generative AI models (48% agree ad 52% disagree). An overwhelming majority of respondents agree that there should be more training on the rights of Open Education creators about IP law and licensing (94%) and that Open Education practitioners require more training on and knowledge of Generative AI models (99%).

Respondents also voiced concerns over keeping the ideals of Open in open education as GenAI becomes more popular. They expressed concerns over accessibility, quality review, and data sourcing, and concerns over the use of GenAI in education in general. Finally, there were concerns over the overlap of the legal state of items created by generative AI and the current state of copyright law. These include changing paradigms and concerns over the usefulness of anything produced by this research due to the nebulous space we are currently in and how it may evolve in the future.

Considerations for the Future

The economic and social footprint of GenAI continues to expand. Open Education, likewise, continues to develop its foothold in higher education globally. When intellectual property laws are next updated, the impact and role of GenAI's will have to be considered (GenAI did not exist at the last major update to these laws). The intersection of GenAI, open education, and IP law will continue to evolve.

To that end, what does the future look like? The considerations in this document provide ideas of what may be considered to protect and retain one's IP. The future—however it may look, as they are many possible futures—has no guarantees. What is relevant today may not be relevant into the future. For open education practitioners, some areas to watch in the future, both in common usage and legal frameworks, include:

- Changes to copyright law in various jurisdictions, especially Canadian
- Shifting common sentiment around AI usage and generation, especially in classroom settings
- Statements and policies from AI companies related to who owns the outputs
- Litigation and greater examination on establishing at what point something shifts from human creation to AI-created, or vice-versa
- Uptake of licensing that pertains to AI usage, such as Creative Commons Signals
- Uptake in the usage and providing of disclosure statements about the usage of AI

This list of things to watch for in the future is by no means exhaustive. This is an emerging and evolving space. Many areas still need to be addressed by resolved by governments, AI companies, and the open education community to find, orient to, and arrive at a desired shared future.

Contact and Acknowledgements

If you would like to tell us about your usage of this resource or have any ideas on how to modify or improve them, we would love to hear from you. Please contact us at research@ecampusontario.ca.

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