



Artificial Intelligence Academic Framework

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Appendices

Contents

<i>Appendix A – Literature Review</i>	2
Artificial Intelligence in College Education: A Literature Review in Consideration of the Fanshawe College Perspective	2
<i>Appendix B – Framework Team, 2024</i>	5
<i>Appendix C – Declaration statements for faculty regarding use</i>	6
Student Guidelines for Generative Artificial Intelligence (AI) Use	6
<i>Appendix D – Faculty and Industry Use Cases</i>	7
Industry Use Cases	8
<i>Appendix E – Technology Use Evaluation Guidelines</i>	9
Rubric for Evaluating AI Tools: Fundamental Criteria	9
Process for Piloting New AI Tools	13
<i>Appendix F- Training Resources and Topics</i>	14
<i>Appendix G – Copyright guidelines for AI</i>	15
Canadian Copyright and Generative Artificial Intelligence	15
<i>Appendix H – Resources for Academic Integrity</i>	17
Navigating AI Use in Assignments.....	17
<i>Appendix I – Research Guidelines</i>	20
Accountability and Responsibility	20
Research Design and Implementation	20
Informed Consent	20
Peer Review	20
Transparency	20
Data Privacy and Security	20
<i>References – Literature Review</i>	21

Appendix A – Literature Review

Artificial Intelligence in College Education: A Literature Review in Consideration of the Fanshawe College Perspective

“It is crucial to emphasize that educational technology is not (only) about technology – it is the pedagogical, ethical, social, cultural and economic dimensions of AIED we should be concerned about.” - Zawacki-Richter, O., Marín, V.I., Bond, M. *et al.*, 2009

Background

The rapid development of generative artificial intelligence (GenAI) is giving rise to a massive and disruptive transformation of the education industry. As with previous shifts, the implications of AI should be carefully considered through a research-grounded approach to inform framework and policy. This literature review summarizes 62 academic articles and 344 news reports in their examination of the opportunities, risks, and research gaps in relation to AI’s impact on teaching, learning, and employment that are pertinent considerations for Fanshawe College.

Opportunities

Almost all sources focused on the potential, perceptions, and practice of this technology rather than quantitative evidence of its early impact. It should be noted as well that the initially negative sentiments around GenAI’s potential abuses have diminished, trending toward a more balanced and hopeful approach, and with students viewing AI more positively than faculty. Multiple sources suggested that this is a chance to reconsider existing policies and practices, so in consideration of these findings, we have identified the following opportunities especially relevant to post-secondary education in Ontario.

The predominant positive theme seen in the review is that AI could make routine and low-level faculty tasks more efficient, allowing professors to focus on meaningful student engagement and higher-order work. For example, using GenAI to summarize or paraphrase academic communications for length, tone, and clarity could enhance understanding between students and faculty. Additionally, AI tools have the potential to benefit the design of programs, courses, and lessons. At the highest levels of development, AI efficiencies might accelerate program creation and revision, helping to bridge the academia-industry gap exacerbated in the post-Covid global economy. Despite potential biases, AI tools should also be able to integrate a broader range of perspectives, including those of Indigenous, 2SLGBTQIA+, and international communities, which faculty might not inherently consider. There are also perceived benefits related to student assessments. Many sources suggest that AI could serve as personalized tutors to create a more collaborative-seeming learning environment, creating a tighter feedback loop with objective assessment criteria, and suggesting comments which could be used by faculty as a precursor to more robust and grounded evaluations. Feedback like this could be pre-generated as part of online tests, which themselves could be rapidly developed by AI, especially for practice and low-stakes comprehension check activities. The impact of AI on assessment could also impact higher-scale issues like better identifying students at risk of failure, in need of remediation or extension, or even in synthesizing transcripts, course details, and portfolios in support of the PLAR process.

Risks

While risks figure in the research, their presence is not necessarily prominent, as researchers focus on the possibilities that lie ahead for the use of AI in higher education. Nonetheless, the risks

associated with AI use are there and must be considered as part of any framework and future strategy.

In terms of the technology itself, not all AI tools are created equally and some lack the quality and refinement that others are rapidly achieving. The research emphasizes that quality control must be a part of the selection process of any institution. Certainly, privacy, security, and the protection of personal information and data remain the largest risks to users, and institutions are cautioned to ensure their cybersecurity and data protection protocols are defined and in place prior to authorizing use of these tools for the larger post-secondary environment.

There are many socio-cultural risks that underpin the use of AI in higher education, as there is no homogenous approach to AI nor one tool that suits all students and faculty alike. When adopting certain tools, the research suggests post-secondary institutions risk alienating certain groups if they privilege one tool over another, as different student groups have been shown to require different learning in AI. Further, much of the research acknowledges that there are implications for bias and fairness in AI tools themselves. More broadly, the research highlights that student and faculty perceptions of AI remain misaligned, as well, and there is much work to be done to bring these disparate viewpoints together for the betterment of education, certainly, but also to align with the expectations of future employers and the rapidly changing workforce.

There is also a multi-pronged financial risk implied in the research: to adopt the technology can be costly, but to not adopt the technology and embrace it quickly can lead to enrollment challenges as students gravitate to more progressive institutions. Post-secondary institutions must be judicious in their acquisition of artificial intelligence tools, as resources may be spent on AI tools that are rarely used by faculty and remain inaccessible to students unable to use them as part of their curriculum. Furthermore, the tools themselves change so rapidly that once access is purchased for one, another may rise in its ability to perform, and contractual obligations and fiscal realities can limit the ability to purchase multiple platforms.

As those in higher education are reluctant to change and often slow to adopt new forms of technology, arguably the biggest risk presented in the literature is not adopting AI in higher education. Many articles liken the emergence of artificial intelligence to the birth of the Internet, and, as such, there is an expectation that post-secondary institutions must adopt, adapt, and change to embrace the technology.

Gaps

Due to the rapid expansion of AI within institutes of higher learning, there simply has not been adequate time to comprehensively evaluate the efficacy and impact of AI on teaching and learning, and campus/academic culture more broadly. While preliminary results have pointed toward the revolutionary potential of these technologies, there are significant gaps that warrant critical dialogue among institutional and academic leadership, staff, faculty and students, and caution

should be taken to consider the specific context, implications, and opportunities at Fanshawe College.

The first source of notable gaps in the literature is the limited number of longitudinal studies. Longitudinal studies provide us with opportunities to measure risk and reward trends over time, with a cross-section of individuals. To date, there remains a paucity of longitudinal studies on AI integration in education, leaving many vital questions unanswered, such as how it impacts the attainment of learning outcomes, teaching effectiveness, skill acquisition and transferability, career readiness, and student-well-being and achievement.

Several authors draw attention to gaps in understanding equity and access issues with AI integration in HE. The Covid-19 pandemic demonstrated the disproportionate impacts of the move to online course delivery experienced by various marginalized communities (e.g. students living in poverty). Gaps in the literature persist regarding AI's ability to reduce or exacerbate these inequities. Furthermore, a critical and comprehensive understanding of how these technologies may have unintended consequences on campus culture (e.g., heightened surveillance, reduction in human-to-human contact, and a culture of mistrust between educators and students), remains unclear.

There is a clear gap in understanding what policies are needed to ensure safe, ethical, feasible, flexible, relevant, equitable, and timely adoption of AI to guide faculty, students, staff and institutions forward. Broadly speaking, there may be benefits and drawbacks institutions collectively share, the specificity of each student, instructor, course, program, faculty, and institution makes the implementation of broad policies difficult, if not impractical, to implement. New or revised academic policies often necessitate a change in pedagogical approach to course delivery, most notable assignments and evaluation, adding a workload burden to faculty that is unsustainable. Therefore, further research is needed to explore how such policies impact faculty recruitment and retention.

Conclusion

There is an imminent need for post-secondary institutions to establish a framework to operationalize opportunities and mitigate risks. Artificial intelligence frameworks and their resulting strategies and policies must be agile, and revisions must be considered outside of traditional timelines for institutions, as the technology will continue to evolve. Requirements around inclusion/exclusion must be clear, specific, and flexible where needed, and there remains a need for currency and maintenance in policy, training, and communication. As legislation and government regulations emerge, higher education will need to remain vigilant in its use of artificial intelligence and remain prepared to adapt as more information becomes available. This literature review is by no means a comprehensive analysis of artificial intelligence in post-secondary education and is instead a brief overview and synopsis of many of the most salient ideas presented in the research cited in the references at the end of this framework. Continued monitoring of emerging research is recommended, as the artificial intelligence landscape continues to evolve.

References for this literature review are available, pages 17 – 21.

Appendix B – Framework Team, 2024

- **Jessica Bugorski**, Director, Library Learning Commons
- **Jason Burt**, Associate Dean, School of Applied Science and Technology
- **Jim Cooper**, Coordinator, School of Information Technology
- **Matthew Crawford**, Professor, Norton Wolf School of Aviation and Aerospace Technology
- **Tracy Dietrich**, Curriculum Consultant, Centre for Academic Excellence
- **Jodi Hall**, Professor, School of Nursing
- **Samantha Harrison**, Manager, Academic Integrity Services
- **David Latour**, Coordinator, School of Media and Digital Arts
- **Mary Pierce**, Dean, Faculty of Business, Information Technology and Part-time Studies
- **Craig Reed**, Senior Manager, Information Security
- **Shauna Roch**, OER Design Studio Project Lead
- **Dev Sainani**, Associate Dean, School of Information Technology
- **Donna Sevenpifer**, Professor, Centre for Research and Innovation
- **Brad Smith**, Coordinator, School of Applied Science and Technology
- **Graeme Thomas**, Coordinator, School of Health Sciences
- **Ryan Walmsley**, eLearning Curriculum Consultant, Online and Blended Learning
- **Joanna Watkins**, Coordinator, Lawrence Kinlin School of Business
- **Kim Wilmink**, Faculty Development Consultant, Organizational Development & Learning
- **Linda Young**, Senior Manager, Learning Systems Services

Appendix C – Declaration statements for faculty regarding use

Student Guidelines for Generative Artificial Intelligence (AI) Use

The following statements may be used and/or modified to provide guidance for students on the course plan and/or assignments to create a shared understanding of whether and how students may use Generative AI tools in their academic work.

Suggested Syllabus Statement	
Limited	<p>For courses that limit generative AI use:</p> <p>Generative Artificial Intelligence (AI) programs, such as Microsoft Copilot, may not be used for the completion of, or to support the completion of, any assignments, tests exams, or other assessment types in the course without securing prior consent from the instructor. You may use Generative AI for learning and/or studying purposes (such as), but any submission of work for assessment purposes utilizing Generative AI, without consent, may be considered an academic offense in this course.</p>
Partial	<p>For courses that permit partial generative AI use:</p> <p>Generative Artificial Intelligence (AI) programs, such as Microsoft Copilot, may be used it this course to [instructor to select appropriate use by adding or deleting from this list or listing specific course assignments and/or activities: brainstorm, learn about a topic, revise your own work, organize thoughts or draft outline, improve writing style, add other uses] with appropriate attribution. You are responsible for fact checking and respecting intellectual property, in any use of Generative AI. Generative AI may not be used for [faculty to select inappropriate use by adding or deleting from this list or listing specific course assignments/activities: completing assignments, composing written work or portions of work, completing a test or exam, other uses]. If you are unsure about whether you may use generative AI in this course, you are encouraged to seek clarification from your instructor. Inappropriate use of Generative Ai may be considered an academic offense in this course.</p>
Full	<p>For courses that embrace generative AI use</p> <p>The use of Generative Artificial Intelligence (AI) programs, such as Microsoft Copilot, is encouraged in this course to support the following course learning outcomes [instructors insert outcomes aligned to allowable and appropriate use of generative AI]. You are responsible for fact checking, respecting intellectual property, and using appropriate attribution. The use of Generative AI without appropriate attribution and documentation (as specified in the assessment by your instructor) may be considered an academic offense in this course.</p>

Appendix D – Faculty and Industry Use Cases

Use cases vary across Fanshawe will faculty already using artificial intelligence for a variety of purposes. Across the educational landscape there tends to be 5 categories of use – student engagement, student success, identifying at risk students, expediting faculty administrative tasks, and personalized learning. Below are some current examples from Fanshawe.

In Dental Hygiene AI is used in the Pathophysiology class to encourage students to understand the ethics and accuracy of using AI in healthcare, and also to learn referencing for AI.

In the CICE program AI is being used in writing scenarios and role plays for student discussion and in-class demonstration.

In Medical Radiation Technology AI is being used to create patient scenarios for students to discuss and role play.

In Pharmacy Technician students are invited to create a personalized image of themselves using an AI Image Creator and to use AI to help to develop career goals in pharmacy practice.

In Human Resources AI is used to simulate negotiation scenarios and collective bargaining exercises.

In Supply Chain Management AI is used to assist in development of presentations, case study and teaching note creation and to generate ideas for in-class group activity.

In Entrepreneurship the professor is teaching AI prompt iteration to help students to understand how more effective prompt development can be used to create scenarios and cases. Derek is using AI to assist with rubric development, demo questions and for generating summaries.

In Graphic Design, AI is being used to do quick fixes in images, create comps, and to speed up workflow.

In Horticulture, AI is being used to help with assignment research and idea generation. They are also using AI enabled Plant Identification software.

In Fashion Design, an AI enabled software is being used to create new prints for fabrics, faces on avatars, and to visualize sketches in 3D.

In Bachelor of Environmental Design, AI enabled versions of Photoshop and Illustrator are used for ideation, and for creating graphics.

In Health Systems Management, students are invited to do assignments with and without AI tools and to compare the differences and pros and cons.

In IT Micro-credentials, one of the most popular programs is prompt development for AI.

IT's very popular AI and Machine Learning program teaches students the fundamentals of building and working with Large Language Models.

Industry Use Cases

Fanshawe explored use of AI in all employment sectors in Program Advisory Panels in the spring and summer of 2024.

Overall, all sectors that Fanshawe current serves indicated that they are using AI at some level and that many are replacing job functions often served by entry level Fanshawe graduates. They expressed that they expect that Fanshawe is teaching ethical and appropriate use of AI in the respective program areas we offer.

Some highlights include:

Many employers indicated that most resumes and cover letters seem to be AI generated and it is challenging for them to distinguish quality job candidates.

Employers in HR are using AI for candidate screening and initial interviewing.

Employers in Engineering are using AI for design and specification work.

Marketing companies are using AI for design, copyrighting and social media production.

Procurement professionals are using AI for product and pricing comparisons.

Employers in Health are using AI to automate and track processes in hospitals and clinics.

Biotech companies are using AI in R-coding and code writing.

Employers in Computer programming are replacing human programmers with AI

In Architecture and Landscape Design employers are using AI enabled design and layout tools.

Employers in policing and fire are using AI for training tools, simulations and for scenario development

Accountants are using AI to detect anomalies in financial data and in automating audits.

The insurance industry is using AI for underwriting scenarios and claims management.

Appendix E – Technology Use Evaluation Guidelines

Rubric for Evaluating AI Tools: Fundamental Criteria

The Rubric for AI Tool Evaluation provides a framework for assessing the strengths and weaknesses of AI tools based on a set of criteria, including functionality, accessibility, privacy, pedagogical, ethical, and environmental considerations. This resource is an informal evaluation tool to inform decision-making and conversations. Be sure to check with the teaching and learning department for advice and IT Services around evaluation and appropriate use of technologies. Keep in mind that not all requirements may apply to every AI tool. Please note that the rubric has been adapted for use at Fanshawe College.

Category	Criteria	Works Well	Minor Concerns	Serious Concerns
Functionality	Responsiveness	The AI provides rapid and accurate responses to queries	Occasional delays or inaccuracies in AI responses	Slow response times and frequent inaccuracies hinder the learning process.
Functionality	Ease of Use	The AI interface is intuitive, with little to no learning curve for new users.	Some users require assistance to navigate or understand AI functionalities	Users find the interface confusing, leading to a significant barrier to practical use
Functionality	Tech Support / Help Availability	Robust support materials specifically for AI, with responsive technical support for AI-related inquiries.	AI support materials are less thorough.	Lack of AI-focused support materials and channels.
Accessibility	Accessibility standards	The tool meets the accessibility guidelines (e.g., local accessibility legislation or WCAG 2.0 Guidelines)	The tool has some limited capacity to meet accessibility guidelines.	The tool fails to meet basic accessibility standards, making it difficult or impossible for users with disabilities to utilize it effectively.

Accessibility	Cost of Use	The AI tool offers significant value for its cost, with transparent pricing models.	The tool has some cost barriers, but discounts or institutional licenses can reduce expenses.	The high cost of the tool significantly limits its accessibility to a broader user base.
Technical	Operating Systems & Browsers	The AI tool is compatible with many operating systems, mobile devices, and browsers and does not require extensive resources.	The tool works on most systems but is optimized for certain operating systems/browsers, which could limit some users.	Compatibility is limited to a few operating systems/browsers, excluding users.
Technical	Additional Downloads	No additional downloads are required to use the AI tool, or any required software is lightweight and easy to install.	Some additional downloads are necessary but do not significantly impact the ease of setup or use.	The tool requires multiple or resource-intensive downloads, complicating setup and use and possibly violating institutional IT policies.
Technical	Offline Access	The AI tool can function with minimal connectivity or has offline capabilities.	The tool requires a stable internet connection for most functionalities.	Constant, high-speed internet is essential, rendering the tool unusable in low-connectivity environments.
Data Privacy & Security	Sign Up/ Sign In	Using the tool does not require creating an external account or additional login; no personal user information is collected or shared.	Either Professors are the only users required to provide personal information to set up an account, or the tool has been vetted through IT to ensure strict adherence to local, institutional, or individual policies/standards for protecting the collection and use of student personal data by a third-party group.	The sign-up process lacks secure authentication or unnecessarily requires extensive personal information.

Data Privacy & Security	Data Privacy & Ownership	Users maintain ownership & copyright of their intellectual property/data; they can keep data private and decide if / how data will be shared.	Users maintain ownership and copyright of their intellectual property/data; data is shared publicly and cannot be made private.	Users have little to no control over their data once they enter the AI system.
Data Privacy & Security	Archiving, Saving, and Exporting Data	Users can archive, save, or import and export content or activity data in a variety of formats	There are limitations to archiving, saving, or importing/exporting content or activity data	Content and activity data cannot be archived, saved, imported, or exported
Social Presence	Collaboration	The AI tool enhances collaboration through features like group chats, forums, and intelligent matchmaking for study partners or groups based on skills and learning goals.	The tool supports some collaborative functions, but some features may not be as robust or user-friendly as desired.	Collaboration is hindered by the tool, either through a lack of supportive features or by creating barriers to effective group work
Teaching Presence	Facilitation	The AI tool facilitates meaningful learning experiences, effectively guiding students through the learning process and providing timely support.	The AI tool facilitates meaningful learning experiences, effectively guiding students through the learning process and providing timely support.	The AI tool's facilitation is limited or misaligned with instructional goals, necessitating significant instructor effort to maintain teaching presence.

Cognitive Presence	Enhancement of Cognitive Tasks	The AI tool actively supports a range of cognitive tasks, enhancing learning efficiency and effectiveness.	The tool provides some cognitive support but may only be comprehensive across some task types.	The tool does little to enhance cognitive tasks, possibly hindering cognitive engagement due to poor design or functionality.
Ethics	Bias and Fairness	The AI tool has been audited for bias, and mechanisms are in place to ensure fairness across diverse user groups.	Efforts to mitigate bias are in place, but occasional issues that require manual correction may arise.	The tool has known biases or has not been audited for bias, potentially perpetuating systemic inequalities.
Ethics	Transparency	The AI clearly explains its outputs, and the decision-making process is well-documented and accessible to users.	Some level of transparency is provided, but it can be challenging for users to understand the full decision-making process.	The decision-making process is opaque, and users need to understand how or why decisions are made.
Environment	Energy Efficiency	The AI tool is designed for high energy efficiency, with optimization to reduce power consumption during both training and inference.	The tool is reasonably energy efficient but could be improved with further optimization.	The tool requires substantial power and lacks efforts to enhance energy efficiency, resulting in high operational costs and environmental impact.

Rubric for Evaluating AI Tools: Fundamental Criteria by Kyle Mackie and Erin Aspenlieder, copyright 2024 Paul R MacPherson Institute for Leadership, Innovation and Excellence in Teaching, McMaster University is made available under the terms of the Creative Commons Attribution-Non-commercial-ShareAlike 4.0 International License, <http://creativecommons.org/licenses/by-nc-sa/4.0/>

Process for Piloting New AI Tools

If you're interested in piloting a new AI tool, please submit your request by completing the form available on the [Ed Tech Request site](#). The completed request form will help us evaluate your interest, understand how you plan to use the AI tools, and ensure we allocate resources effectively. Please note that the associated costs of piloting and implementing new AI tools will be taken into consideration when evaluating the request. Additionally, we will assess the technical, data, and privacy aspects of the AI tool. Pilot participants will receive training and support throughout the pilot phase. At the end of the pilot, you will be asked to provide feedback on the AI tool, which help us determine if we should move forward with a campus-wide license, run another pilot to gain additional feedback, or discontinue the pilot.

Appendix F- Training Resources and Topics

The following topics have been identified as areas for training and/or resources with Organizational Development and Learning:

- **Introduction to AI** – Start with a foundational understanding of AI - What it is, and just as importantly, what it isn't. This will include an overview of AI's capabilities and its role in education.
- **AI in Teaching** – The art of prompting is a skill that can enhance teaching materials creation. We'll delve into best practices and when it's appropriate to incorporate AI into your teaching.
- **How to support students using AI** in collaboration Library Services.
- **Fanshawe's AI Tools** - Fanshawe already has several AI tools in place. We'll have a training session to familiarize faculty with these tools and how they can benefit their teaching – in collaboration with Learning Systems Services.
- **Artificial Intelligence and Academic Integrity (AI²)** – in collaboration with Academic Integrity Office.
- **Artificial Intelligence Community of Practice** – provide opportunities for faculty to share best practices, resources and experiences of using AI in teaching and learning.

Resources for faculty familiarization and training will be provided through a variety of modalities.

- Dedicated FanshaweLearns playlist with links to webinar recordings, resource documents, and LinkedIn Learning training.
- Live training sessions – in person and online
- Showcase events

Appendix G – Copyright guidelines for AI

Canadian Copyright and Generative Artificial Intelligence

Within the scope of Canadian copyright law, generative Artificial Intelligence (genAI) poses many opportunities and risks for the educational sector. Currently, the weight of these opportunities and risks is uncertain as Canadian courts and Parliament have not addressed copyright and genAI.

The purpose of this brief is to highlight and explain these areas of uncertainty, in particular:

1. Is permission required to train using copyright-protected works?
2. Who owns the copyright in an original work created by genAI?
3. Who is liable in infringement cases related to genAI?

Considering these uncertainties, this brief will also suggest safe approaches to using genAI while they persist.

1. Is permission required to train genAI using copyright-protected works?

The training of genAI requires copying. If a work is protected by copyright, its copies must be made with the permission of the copyright holder or under a statutory exception to copyright, such as **fair dealing**.

Fair dealing is available for training genAI since this activity is a form of research.¹ That said, the copying involved in training must also be **fair**, a quality that our courts determine using a multi-factored analysis based on the case's facts.² While there is a strong argument for fairness in many scenarios, it is impossible to conclude that all cases of training genAI will be fair. For example, training on materials in our library's collection may be considered unfair if our licence for those materials contains clauses that prohibit that act.

College projects that involve the training of AI on copyright-protected works should note this uncertainty and consider documenting their training protocols³ for transparency and review.

2. Who owns the copyright in an original work created by genAI?

The *Copyright Act* grants copyright to the author of an original work for the length of the author's life plus 70 years. By referring to an author's lifetime, the *Copyright Act* implies that an author cannot be a machine. This interpretation has been confirmed in other jurisdictions,⁴ however, Canadian legal authorities have yet to do the same.

In July 2024, the Samuelson-Glushko Canadian Internet Policy and Public Interest Clinic (CIPPIC) filed an application to the Federal Court for a declaration that a genAI image, whose copyright has been registered in

¹ Under Canadian copyright law, fair dealing is limited to eight possible purposes, including research. *Copyright Act, RSC 1985, c C-45, ss 29-29.2 [Copyright Act]*.

² These factors take into consideration the underlying motivation for the copying as well as the impact of the copying on the copyright holder's market. *CCH Canadian Ltd v Law Society of Upper Canada*, 2004 SCC 13 at paras 53–60 [*CCH*].

³ Protocols may include, for example, what works are being trained on, how are they being accessed, how they are being stored, etc.

⁴ For example, in the USA. *Thaler v. Perlmutter*, No. 1:22-cv-01564-BAH, Doc. 24 (D.D.C. 08/18/23).

the Canadian Intellectual Property Office, is without copyright; alternatively, should there be copyright in the image, that the software used to generate the image should not be considered an author.⁵ The outcome of CIPPIC's application is likely to determine the question of authorship and ownership of works created by genAI in Canada.

Content creators at the College should assume until further notice that all genAI outputs are without copyright protection. To commercialize and protect creative works authored with the aid of genAI, content creators must apply their skill and judgement to prepare new and original works using the building blocks that genAI has provided.⁶ For example, a textbook written by a faculty member that incorporates genAI images would still have a copyright in the text itself.

3. Who is liable in infringement cases related to genAI?

Copyright infringement occurs when a substantial part of copyright-protected work is reproduced without the permission of the copyright holder. genAI has the potential to generate works that bear substantial similarity to copyright-protected works, especially if these works are in the genAI's training corpora. In such a case, it is unclear whether the party liable for this copying is the genAI user/customer or programmer/company.

Like with fair dealing, this question is dependent on the facts of the case. For example, a user who engineers prompts with the intention of recreating copyright-protected works using genAI will certainly be accountable for the infringement that occurs. However, could the company that developed that genAI be liable as well? That is uncertain. On the other hand, if a user innocently prompts a collection of haikus, many of which are nearly identical to those found in a contemporary poet's latest publication, it may be more likely that the genAI developer is liable. In either case, if a user becomes aware that an output is an infringing copy of another work, they would be liable for *secondary infringement* if they distribute that work any further.

The College and its members should avoid the development of genAI tools designed to reproduce the works within their corpora, and they should not use any genAI tool to copy or gain access to copyright-protected works without the copyright holder's permission.

For inquiries and help: contact Wilson Poulter, Copyright Services Officer

⁵ *Samuelson-Glushko Canadian Internet Pol v Ankit Sahni (Notice of Application)*, T-1717-24 (FC).

⁶ *CCH*, *supra* note 2 at para 16.

Appendix H – Resources for Academic Integrity

Navigating AI Use in Assignments

To uphold Fanshawe's academic integrity, it is important to be transparent with our students regarding our expectations surrounding the use of Artificial Intelligence (AI) in the classroom and within the completion of Assignments.

At Fanshawe, all course outlines have been prepopulated to include the following statements, effective Fall 2023:

Students are encouraged to discuss Academic Integrity and Academic Offence-related concerns with their Course Instructors. Specifically, students should speak with their Course Instructors about the use of cognitive offloading tools, which include, but are not limited to: calculators, textbooks, translation tools, course notes and resources, search engines (e.g. Google), and artificial intelligence applications (e.g. ChatGPT). Students should consult with their Course Instructors regarding which cognitive offloading tools, if any, are permitted for a given assessment.

This statement puts the onus on the student to confirm whether the use of artificial intelligence is permitted. Below are some suggested instructions you could provide to your students to clarify the permitted use of artificial intelligence when completing an assignment.

Sample Statements for Faculty to use on Assignments– use of Artificial Intelligence

Faculty are encouraged to use these statements to clarify when, or if, the use of artificial intelligence is allowed for coursework.

Use is not permitted:

- This assignment/project must be completed independently, without the assistance of artificial intelligence (AI) tools such as text generators. The expectation is to draw upon your own knowledge, research abilities and critical thinking skills to complete your work.

***Some use is permitted:*

- For this assignment, the final written work or product must be your own creation. You are permitted to use artificial intelligence (AI) tools to initiate your research and brainstorm ideas or concepts. Any AI-generated content must be properly cited and referenced and should be reviewed and revised for accuracy and relevance. Include a list of the prompts used to find your AI-generated content as an appendix to your final submission.

***Some use is encouraged:*

- For this assignment you are encouraged to use artificial intelligence (AI) tools like ChatGPT to create text and conduct research. It is imperative to combine your own knowledge, research abilities, and critical thinking skills with any AI-generated content. Ensure that you review, edit and enhance the content for accuracy and relevance to both the topic and the assignment. Any AI-generated content must be properly cited and referenced and should be reviewed and revised for accuracy and relevance. Include a list of the prompts used to find your AI-generated content as an appendix to your final submission.

***No limitations on use:*

- You are permitted to use artificial intelligence (AI) tools such as ChatGPT to create part or all of this assignment. It is your responsibility to review all generated text for accuracy, relevance, proper citation and referencing. Confirm that all AI-generated content is in alignment with your own ideas and understanding of the assignment topic. Include a list of the prompts used to find your AI-generated content as an appendix to your final submission.
- Alternatively, you could utilize one of the Icons developed by Dr. Martine Peters. Logos for transparent use of artificial intelligence © 2023 by Dr. Martine Peters is licensed under CC BY-NC-SA 4.0. Another valuable resource for faculty members is the **GUIDE** framework produced by the Centre for Teaching and Learning at the University of Regina:
 - **Guidelines-** It is important for instructors to clearly layout the rules, boundaries and expectations for using generative AI in coursework and other academic activities. It is strongly recommended that instructors incorporate a statement on the use of generative AI into course syllabi. Please consult the University of Regina’s sample syllabus statements regarding the use of generative AI in coursework.
 - **Understanding –** It is essential for instructors and students to better understand the types, capabilities, and potential uses and misuses of generative AI. Instructors should familiarize themselves with these technologies and work to foster student conversations and explorations regarding these emerging tools.
 - **Identification-** Instructors should identify innovative ways to incorporate generative AI into curriculum, such as brainstorming ideas, producing code examples, generating historical dialogues, assisting with research, etc. Concurrently, instructors should work to identify the constraints of using tools like ChatGPT within the scope of their subject matter, emphasizing limitations such as risk of generating outdated data or incorrect information (including fabricated citations), the possibility of producing analyses based on inherent biases, or the risk of using language or references that may be culturally insensitive or inappropriate.
 - **Disclosure-** Instructors should require students to disclose when and how they’ve incorporated AI into their coursework. This promotes transparency and academic honesty. Instructors may want to provide a sample statement that students can adapt in order to clearly communicate how they have used AI in their work; an example of such a statement (which was generated with the help of ChatGPT) might be: “This [text, image, video] was produced by the author using assistance from [insert generative AI provider]. The author affirms that they have thoroughly examined, modified, and refined the initial AI-generated draft and acknowledges that they are accountable for the content of this assignment.” Additionally, the APA, MLA and Chicago citation guides gave released information on how to cite AI-generated content in academic work. APA and Chicago currently recommend citing such content as “personal communication,”
While the MLA style guide includes more detailed instructions. It is equally important for instructors to exemplify these ethical principles by transparently disclosing when they’ve used AI or other related tools in coursework.
 - **Ethics-** Instructors should foster open dialogues that highlights the ethical considerations when using generative AI. Such conversations might include issues of bias, representation, copyright, and authorship. Instructors should also endeavour to protect the privacy and intellectual property of students in any use of generative AI in teaching, including in assessment and feedback.

What to do when you suspect your student utilized AI when they were not authorized to do so?

1. Review the document properties. If the student has submitted a word file review the properties of the document (when the document was created, editing time, author).
2. Review the assignment, AI generated work has been known to have the following “Red flag” characteristics: not consistent with the assignment guidelines/ format, incorrect information (incorrect facts in AI writing are called hallucinations” and incorrect citation.
3. Talk to the student, ask them specific questions about their assignment and see if they can speak to what they have produced. Ask them about how they went about completing the assignment.
4. Compare the assignment to previously submitted work, does the assignment match the level of work previously submitted? Has the writing style changed drastically?

If after completing the steps above more red flags have been raised and you believe the student has completed the work with the assistance of unauthorized use of an AI tool then you can move forward with issuing an academic offence.

Appendix I – Research Guidelines

Accountability and Responsibility

- Accountability rests with the researcher/author/grant applicant, and/or research administrator.
- Be aware of and adhere to any applicable policies and guidelines of the funding body and/or institution.
- Obtain necessary permissions if required.
- Human oversight is mandatory. This oversight includes ensuring the accuracy and appropriateness of AI generated results, to the best of one’s ability.

Research Design and Implementation

- Clearly document AI methodologies, datasets, and algorithms used.
- Implement strategies to identify and mitigate biases in AI systems.

Informed Consent

- Obtain informed consent from participants before collecting or analyzing their data with the assistance of AI tools. Special consideration should be given to security issues relating to data analysis by AI tools.
- Safeguard personal data and ensure compliance with relevant privacy regulations.

Peer Review

- For Fanshawe employees performing peer review as part of their duties, to protect the privacy and potential intellectual property of applicants, AI tools may not be used in the review process (e.g. Research & Innovation Fund (RIF), Research Ethics Board (REB), etc.)

Transparency

- If required, disclose the use of AI tools in the application and/or research process.
- This may be a conversation with a manager, project collaborators (co-investigators, industry partners, classmates, etc.)
- This may be formal disclosure (to funding body, industry partner, publisher, instructor, etc.) in the form of a citation or acknowledgement.
- Disclosure may include citation/reference/footnotes/acknowledgement or inclusion of prompts used.

Data Privacy and Security

- It is the responsibility of the researcher to ensure compliance with relevant privacy regulations (e.g. [institutional](#), federal, funder).
- Do not enter confidential, personal, or proprietary data.
- To the best of your ability and abiding by current protocols, safeguard personal data of project participants and industry partners.

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