

Recommendations on Artificial Intelligence and Academic Integrity at Cambrian

Summary Report

August 2024



**Cambrian
College**

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Introduction

The Academic Integrity and Artificial Intelligence (AI/AI) Working Group was established in Spring 2024 to address concerns related to the use of Generative AI in academic settings at Cambrian College. This report of recommendation aims to identify strategies to help mitigate these concerns.

The AI/AI Working group consisted of 13 members across the Academic division. The areas of focus included institutions' responses to GenAI, internal policies around academic integrity and AI, the use of AI detection tools, academic integrity offices, and supports for students and faculty.

Recommendations were reported to the Vice President, Academic in May 2024.

Generative Artificial Intelligence

Generative Artificial Intelligence (GenAI) is a type of artificial intelligence that creates new content in response to prompts.¹ Users can generate content in many different formats including text, image, video, audio, code, and other media. Tools like ChatGPT, Microsoft Copilot, and Google Gemini can now perform creative and analytical functions that were previously thought to be exclusively human, significantly impacting many industries. GenAI's rapid evolution is notably impacting the education sector and presents both opportunities and challenges in an educational context.

A *2024 EDUCAUSE AI Landscape Study*² found that most institutions are currently working on AI-related strategies. These AI strategies tend to focus on academic policies, technology, and cybersecurity/data privacy, with academic integrity identified as the top concern for most institutions. Most institutions see opportunities in using AI to prepare students for the workforce and to explore new methods of teaching and learning and these goals are typically achieved by offering AI-related training for faculty, staff, and students.

Specific AI-related tasks individuals are working on include:

- Educating students, staff, and faculty about AI
- Developing guidance and support for faculty using AI in their teaching
- Facilitating faculty teaching and learning groups (e.g., faculty learning communities)
- Coordinating task forces and working groups
- Creating and running AI-focused academic programs
- Evaluating AI-powered tools
- Developing and evaluating AI-related policies and guidelines

¹ "What is Generative AI (GenAI)?" Source: [Techopedia](#).

² Robert, Jenay. (2024). 2024 EDUCAUSE AI Landscape Study. Research report. [Boulder, CO: ECAR](#)

- Supporting AI for research
- Advising partners about AI-related privacy and security issues
- Researching AI-related topics (e.g., use cases, exemplars, privacy and security)

Opportunities

Though much of the discussion about the rapid increase in artificial intelligence (AI) use focuses on the challenges it presents, it also presents many potential opportunities. Like previous new technologies—including calculators, the internet, spellcheck, and cell phones—generative AI is transforming education and prompting educators to reflect on their teaching practices. Many educators see value in AI for higher education, particularly by offering personalized student support, digital literacy training, and assisting with teaching, research, administration, and analytic tasks.³

Generative AI tools can foster innovation by challenging us to rethink assessments, class activities, and teaching practices. These tools compel us to reassess the essential skills, curriculum, and technological tools that students will encounter in their academic programs and future careers, demonstrating the importance of discussing these topics across the institution and with industry and community partners. When utilized effectively, they can also help save time for faculty and students by assisting with many routine tasks.

Opportunities for everyone

- Functional uses (check spelling and grammar, proofread drafts, update tone, etc.)
- Language and translation support
- Brainstorming ideas, creating outlines, and drafting documents

Opportunities for students

- On-demand tutoring and support
- Personalized, adaptive learning

Opportunities for faculty/staff

- Help with administrative processes
- Research tasks (researching classroom activities, technology, or other teaching tools and strategies)
- Generate draft lesson plans, rubrics, case studies, etc.

³ An [EDUCAUSE QuickPoll](#) conducted in April 2023 identified a long list of AI uses, which can be organized into four categories: Dreaming (helping you think), Drudgery (lightening your load), Design (building your content), and Development (advancing your work).

Challenges

Academic Integrity

The most mentioned concerns about AI in postsecondary education are those related to academic integrity. The potential for students to misuse GenAI tools presents new challenges for educators as misuse may undermine academic integrity, misrepresent students' original work, and devalue authentic learning experiences.

Further challenges arise when AI tools are used as a learning or study aid by students (e.g., for translation support, or used to help adjust the tone of their writing) and can be perceived as an academic integrity violation by a faculty member.

Authentic Assessment

GenAI tools can produce content in various formats that do not always reflect a student's own knowledge, skills, or unique perspectives. Because GenAI tools require minimal human input, the results might not serve as an accurate demonstration of a student's true capabilities. It can be challenging for faculty to assess student work on a consistent and fair basis if some students use GenAI tools to complete assignments while others do not.

Privacy and Security

Some AI tools require access to personal data such as student demographic information or browsing history, raising concerns about data privacy and potential misuse of sensitive information.

Submitting student work to AI detectors or GenAI tools poses additional concerns about privacy and data security, including the risk of exposing personal or sensitive information and intellectual property without students' consent.

Perpetuating Biases

GenAI tools may amplify biases present in the data they were trained on. This could lead to the creation of content that inadvertently favours certain perspectives or cultural norms and perpetuates stereotypes. Using AI-generated content without proper vetting could lead to the dissemination of inaccurate or biased information.

Equitable Access

Access to technology varies widely among students; some might not have the resources to use the latest generative AI tools because of financial constraints or limited technology at home. This disparity creates an unfair advantage, as students who can afford these tools are able to significantly enhance their work.

Human-Centered Education

Over-reliance on AI for tasks such as answering student questions or providing feedback could diminish the quality of teacher-student interactions, which are crucial for learning. This raises questions about how to maintain the human-centered aspects of teaching to ensure that educational experiences prioritize student engagement, critical thinking, and creativity.

As educators tackle these challenges, creating guidelines, resources, and supports for academic AI use is essential.

Recommendations

Institutional Recommendations

The AI/AI working group focused primarily on concerns and challenges around academic integrity and AI use affecting faculty and students. While conducting an environmental scan of other institutions and their approaches to AI/AI, we discovered that many colleges and universities are working on institution-wide tasks.

Since our working group comprised mostly faculty and administrators from Cambrian's academic division, we recommend further consultation and involvement of other groups including students, support staff, and other departments across the College.

Our first set of recommendations are for Cambrian to take a more fulsome look at the impact and use of AI across the institution to develop a college-wide stance and guidelines around Artificial Intelligence. These items are foundational and can help inform future College decisions around GenAI use.

We recommend that Cambrian:

- 1. Develop institutional guidelines on the responsible use of AI tools.** These guidelines should create a framework around acceptable use, safety and security, copyright, and intellectual property in relation to AI technologies. The guidelines should encourage the use of internally vetted AI tools.
- 2. Establish an institutional artificial intelligence (AI) working group at Cambrian.** This group should include students, staff, faculty and administrators across Cambrian who meet regularly. Their mandate may include exploring recent advancements in AI and considering their educational impacts, fostering discussion around ethical and responsible AI use, discussing challenges related to GenAI tools, proposing solutions to these challenges, and identifying learning

opportunities for the Cambrian community.

3. **Conduct a college-wide survey on the perceptions and use of generative AI tools among internal partners at Cambrian.** This survey would inform the development of institutional guidelines on AI use, identify opportunities and challenges regarding AI, and determine necessary supports.
4. **Integrate AI-centered discussions into the PAC meeting framework** to determine industry awareness, use, and tolerance of AI. This industry feedback can inform vocational learning outcomes (VLOs), course learning outcomes, programs' curriculum and best practices that may be influenced by AI tools.
5. **Integrate AI-centered discussions in the policy review framework.** Existing policies should be reviewed with AI in mind and language around AI should be integrated into policies where it is deemed necessary by the Policy Review Working Group.
6. **Ensure continued access to Microsoft Copilot for all Cambrian students, staff, and faculty.** This will support innovative practices in teaching and learning, improve digital literacy for students, staff, and faculty, and ensure equitable access to generative AI tools.

Academic Integrity and Other Policies

Institutional guidelines around AI are common for larger institutions, but few have a standalone policy related to AI. At the time of our research, six of the 24 colleges in Ontario had published artificial intelligence guidelines. To our knowledge, no standalone AI policies have been publicly published at this time.

After reviewing academic integrity and artificial intelligence policies at other provincial colleges, as well as our current policies at Cambrian, we recommend updating our existing policies to incorporate guidelines for generative AI into these updates, rather than creating a separate artificial intelligence policy.

We recommend that Cambrian:

7. **Establish a centralized Office of Academic Integrity to coordinate efforts and responses across departments, streamline tracking of academic misconduct, and manage copyright permissions. The Office should be responsible for the review and application of Academic Integrity Policy and the Copying & Fair**

Dealing Guidelines. The office would provide training, resources, support, and guidance for students, faculty, and administrators. This office would streamline case tracking, hold critical reporting documentation, and work to foster a culture of academic integrity across the college. The office could also be responsible for the facilitation of discussions and restorative resolution meetings between faculty and students regarding potential breaches (see recommendation #8).

8. **Review the Academic Integrity Policy annually** to remain current with evolving technologies and practices. Over the past few years, the academic landscape has seen several major shifts with emergency remote teaching during the Covid-19 pandemic, an increase in flexible delivery modes of teaching post-pandemic, and the recent sharp rise in GenAI use. Given how rapidly circumstances change, it would be beneficial to review the academic integrity policy every year instead of every three years.
9. **Review and update the existing Academic Integrity Policy to focus on cultivating a culture of integrity, rather than on punitive actions resulting from academic integrity violations.** Integrate restorative justice practices and review the policy with an Equity, Diversity, Inclusion, and Indigeneity (EDI-I) and cross-cultural lens that incorporates different perspectives into the policy.
10. **Review the Academic Integrity Policy to identify efficiencies that may reduce time and paperwork.** This could address concerns from faculty and administrators that the current process is too cumbersome.
11. **Amend the Responsibilities and Accountabilities in the Academic Integrity Policy such that faculty must communicate their expectations related to the use of aids (which includes GenAI tools).** Include a statement ensuring faculty clearly indicate the degree of authorized use of aids, assistance, or other sources of support during an evaluation or in the completion of work.
12. **Revise the Cheating and Plagiarism Definitions in Appendix A of the Academic Integrity Policy to ensure the use of AI technology is captured as an unauthorized material or aid.** Amend the wording to being more inclusive by saying unauthorized aids and assistance whereby unauthorized aids and assistance is defined within the Appendix.

13. **Amend the statement on the inappropriate use of computer technology in Appendix A of the Academic Integrity Policy to be inclusive of AI tools.** Explore how the following statement in the policy can be rewritten to be inclusive of the acceptable use of GenAI guidelines.
14. **Conduct further research to ensure the appropriate integration of AI as an assistive technology.** Recognizing that AI can be an exceptional personal tutor for students and that current assistive technologies use AI, it would be prudent to consider a review of Accommodations for Students with Disabilities Policy and the use of Chatbots and other generative AI tools as acceptable or unacceptable aids to promote accessibility.

Artificial Intelligence Detection Tools

Many tools have been developed to help identify text that may be AI-generated. Many detectors—including those from Turnitin, Copyleaks, and GPTZero—claim a high level of accuracy and are marketed as helpful tools to maintain academic integrity. However, research consistently demonstrates that these tools are unreliable due to high rates of false positives—especially for non-native-English speakers.

They are also far less accurate when paraphrasing tools are used, present ethical challenges, and may violate students' intellectual property rights if not used properly. For these reasons, most colleges and universities in Ontario do not endorse the use of AI detection tools.

- [Appendix A](#) includes additional information and research regarding concerns with the use of AI detection tools.

The following recommendations are based on the research around AI detection tools, and the validity, ethical, and other challenges they present.

We recommend that Cambrian:

15. **Discourage the use of tools designed to detect AI-generated content.** Given their unreliability and high rates of false positives, these tools risk leading to wrongful accusations of academic dishonesty. This stance is consistent with most Ontario colleges and universities, which currently advise against their use. We recognize that recommendations may change with advancements in technology.
16. **Develop strategies to help faculty, staff, and administrators consistently identify inappropriate AI use.** This may include items such as comparisons to

students' previous work, noting similar submissions from multiple students, or a student's inability to verbally explain their answers on an assessment. This information should be shared with faculty, chairs, and deans as part of the process followed when suspected academic dishonesty occurs.

Student Supports

Through discussions with colleagues at Cambrian and partners at other institutions, we have identified gaps in student-facing resources for digital literacy and academic integrity. We also recognize the need for more regular updates to training, resources, and communication about the responsible and ethical use of AI.

The recommendations in this section identify supports for students that should be updated now that GenAI is so prevalent.

We recommend the Library, Learning Centre, and Teaching & Learning Hub (Academic Excellence) work in consultation with the Academic Division and Student Services to:

17. **Develop new Academic Integrity training materials for students.** It should be updated to reflect updates to the Academic Integrity Policy and may include topics such as the ethical use of AI, strategies for demonstrating their own authentic work, and focus on cultivating a culture of integrity.
18. **Create resources for students, such as workshops and guides, on digital literacy and ethical AI use.** This would include information on the different ways to use AI technologies, understanding course-specific guidelines on AI use, and responsible use of AI tools.
19. **Develop resources and strategies to enable students to document their progress and demonstrate the authenticity of their own work.** This may include strategies such as saving notes, outlines, annotated texts, version histories, in-progress, or draft documents, etc. These resources will help students verify the authenticity of their work in instances where AI misuse is suspected.

We recommend that Cambrian:

20. **Review existing student services in relation to artificial intelligence and identify gaps in services and support related to AI technologies.** Other service areas may have unique needs or challenges related to AI and we recommend a review of all student service areas to identify and repair these gaps.

Faculty Supports

To identify the major challenges faculty face regarding academic integrity and artificial intelligence, we discussed concerns with faculty, chairs, and deans at Cambrian. We also connected with colleagues across Canada to identify what steps other organizations are taking regarding these challenges.

One of the most common steps taken by postsecondary institutions is to review existing policies in the light of GenAI. Most institutions are also developing additional training for faculty and students and compiling additional resources around AI use, detection, and strategies for revising assessments and classroom practices. Based on our consultations with faculty, we provide the following recommendations.

We recommend Cambrian:

21. **Establish uniform definitions for acceptable AI use, ranging from prohibited to unrestricted at the course level.** Standardized definitions adopted college-wide for the range of acceptable AI use will help students understand expectations uniformly, no matter the program or course they're in.
22. **Update the course minimum presence requirements** (i.e., *Quality Criteria for Digital/Online Learning*) to include the addition of statements around acceptable AI use. Faculty should provide these statements in the course syllabus and remind students about acceptable AI use on individual assessments.
23. **Provide mandatory training for all Cambrian employees around acceptable use of artificial intelligence and academic integrity.** This may include topics such as what AI is and how it can be used, ethical use of AI tools, intellectual property, promoting a culture of academic integrity, digital literacy skills, etc.
24. **Provide time for faculty related to extra work surrounding artificial intelligence and academic integrity.** Faculty should be provided time for developing authentic assessments to address issues related to academic integrity and artificial intelligence. Time on the SWF could help address issues around time spent creating new assessments or adjusting existing ones.
25. **Create resources for faculty, chairs, and deans on digital literacy, ethical AI use, and academic integrity.** These resources may be presented as PD opportunities, “best practice” guides, checklists, web or digital resources, etc.

Conclusion

As Cambrian continues to navigate the use of AI technologies, we recommend adopting a comprehensive approach that promotes a culture of academic integrity across the College. The recommendations in this report propose the creation of institutional guidelines and a college-wide AI working group to address challenges and promote ethical and responsible AI use. Regular policy reviews and updated training and supports are essential to mitigate challenges. By engaging the entire Cambrian community in these initiatives, we aim to foster a culture of integrity that values ethical and responsible AI use while maintaining high academic standards.

Proposed Implementation Strategy

We propose categorizing the recommendations into immediate, short-, medium-, and long-term actions to effectively address the challenges presented by generative AI.

Immediate Actions

These recommendations are needed to address immediate concerns around academic integrity and artificial intelligence.

- **Discourage the use of tools designed to detect AI-generated content** (Recommendation 15).
- **Develop strategies to help faculty, chairs, and deans consistently identify suspected inappropriate AI use** (Recommendation 16).
- **Establish uniform definitions for acceptable AI use at the course level** (Recommendation 21).
- **Update the course minimum presence requirements to include AI use statements** (Recommendation 22).

Short-Term Actions

These recommendations are “quick wins” that require fewer resources and may be implemented within a few months.

- **Establish an institutional AI working group** (Recommendation 2).
- **Integrate AI-centered discussions into the PAC meeting framework** (Recommendation 4).

- **Integrate AI-centered discussions in the policy review framework** (Recommendation 5).
- **Ensure continued, equitable access to Microsoft Copilot for all Cambrian students, staff, and faculty** (Recommendation 6).
- **Provide time for faculty related to extra work surrounding artificial intelligence and academic integrity** (Recommendation 24).

Medium-Term Actions

These are recommendations that could be achieved with more resources, coordination, and preparation, but are still necessary for fostering a culture of integrity and promoting ethical and responsible AI use.

- **Develop institutional guidelines on the responsible use of AI tools** (Recommendation 1).
- **Conduct a college-wide survey on the perceptions and use of generative AI tools** (Recommendation 3).
- **Review the Academic Integrity Policy annually** (Recommendation 8).
- **Conduct further research on the integration of AI as an assistive technology** (Recommendation 14).
- **Develop new training and resources for students around Academic Integrity, digital literacy, ethical AI use, and how they can demonstrate the authenticity of their own work** (Recommendations 17-19).
- **Create resources for faculty, chairs, and deans on digital literacy, ethical AI use, and academic integrity** (Recommendation 25).

Long-Term Actions

These items involve extensive planning and collaboration across multiple departments and are intended to significantly improve Cambrian's practices over a longer period.

- **Review and update the existing Academic Integrity Policy and related other policies** (Recommendations 9-13).
- **Establish a centralized Office of Academic Integrity** (Recommendation 7).
- **Review existing student services in relation to AI** (Recommendation 20).

- **Provide mandatory training for all Cambrian employees on acceptable use of AI and academic integrity** (Recommendation 23).

Appendix A: Research on AI Detection Tools

Software companies initially claimed to be highly successful in detecting AI-generated content. Initial claims by companies like Turnitin and GPTZero were often based on research conducted in controlled laboratory environments and reported high levels of accuracy. However, real-world applications of AI detection tools have shown that **AI detection tools can often be inaccurate and produce a higher rate of false positives**⁴ and the accuracy rate is lower when attempting to detect AI-generated text compared to human-written text.

- Studies have shown that AI detection tools often fail, with none achieving over 80% accuracy.² Many mistakenly flag human-written text as AI-generated (false positives) and AI-generated text as human-written (false negatives).⁵
- Turnitin now claims up to 4% of text identified as AI-generated may be a false positive.⁵ However, third-party research has shown the number of false positives to be much higher for most of the available AI detection tools.⁵
- OpenAI, the company who developed ChatGPT, has shut down its own AI classifier citing a low rate of accuracy.⁶ They also note that ChatGPT has no “knowledge” of what is AI-generated, it suggests that human-written content is generated by AI, and it is more likely to “catch” students whose writing is more formulaic or concise. They also note that even if AI detectors were accurate (which they are not) students could make small edits to the output to easily evade detection.

Paraphrasing, translation, and other tools make AI detection far less accurate.

- Accuracy decreases when attempting to detect AI-generated text, compared to human-generated text.
- Students can use AI to effectively disguise much AI writing in numerous ways including making small edits, using the AI to alter the tone, or using paraphrasing tools.⁷ Text put through a paraphrasing tool like Quillbot also made it far less likely to be detected.⁸
- When texts are edited or paraphrased, or translated from other languages, about 50% of AI-generated texts are misidentified as human-written.⁹
- Tools like Grammarly or Google Translate may also generate false positives by altering the style or complexity of a text, which is more likely to be flagged.^{8,9}

⁴ Chechitelli, A. (2023, May 23). AI writing detection update from Turnitin’s Chief Product Officer. [Turnitin](#)

⁵ Weber-Wulff, D., Anohina-Naumeca, A., Bjelobaba, S. *et al.* Testing of detection tools for AI-generated text. *Int J Educ Integr* **19**, 26 (2023). <https://doi.org/10.1007/s40979-023-00146-z>

⁶ Coldewey, Devin. (2023, July 25). “OpenAI scuttles AI-written text detector over ‘low rate of accuracy’”. TechCrunch. Retrieved from [TechCrunch](#).

⁷ Steere, E. (2023, October 18). The Trouble With AI Writing Detection. Inside Higher Ed. Retrieved from [Inside Higher Ed](#).

⁸ Sheinman Orenstrakh, M., Karnalim, O., Suárez, C. A., & Liut, M. (2023). Detecting LLM-Generated Text in Computing Education: A Comparative Study for ChatGPT Cases. arXiv preprint arXiv:2307.07411. Retrieved from [arXiv](#).

⁹ “Do AI Detectors Detect Grammarly?” (2023, November 9). [gowinston.ai](#). Retrieved from [gowinston.ai](#).

- This has a disproportionate impact on marginalized students who may be using AI-based tools to assist in translation, proofreading, and adjusting the tone, grammar, and spelling of their writing.
- An accusation based on a false positive can irrevocably damage trust between an instructor and student.

AI detection tools more often mistakenly identify work by non-native English speakers as AI-generated.

- Research has shown that AI detection tools incorrectly flag a significant proportion of texts written by non-native English speakers as AI-generated.¹⁰
- A study from Stanford found that more than half of TOEFL essays (61.22%) written by non-native English students were incorrectly classified as AI-generated.¹¹

Ethical concerns around AI detection have been raised.⁵

- There is potential for AI detectors to cause false accusations or penalties for students, especially those who are not native English speakers.
- AI detection tools do not provide verifiable evidence, making it difficult for accused students to defend themselves against cheating allegations. Some tools even advise users on how to edit their text to make AI-generated content less detectable.

AI detectors can violate students' intellectual property rights.¹²

- If the student has not given explicit consent for their work to be uploaded to a third-party service, this could constitute unauthorized use of their intellectual property.
- Plagiarism detection software compares submitted text against a database of existing works. This process may involve reproducing the student's work within the software's database, potentially without the student's consent.
- These databases may also strip students of their control over their own work and could impact their future decisions if they ever want to publish a work they've created.

¹⁰ Myers, Andrew. (2023, May 15). "AI-Detectors Biased Against Non-Native English Writers". Stanford HAI. Retrieved from [Stanford HAI](#).

¹¹ Sample, Ian. (2023, July 10). "Programs to detect AI discriminate against non-native English speakers, shows study". The Guardian. Retrieved from [The Guardian](#).

¹² Victoria Longfield; What Copyright? Whose Intellectual Property?: College Student Intellectual Property Rights and Anti-plagiarism Software. *Journal of Information Policy* 30 December 2022; 12 73–87. doi: <https://doi.org/10.5325/jinfopoli.12.2022.0002>