MacEwan UNIVERSITY | AI² Working Group

Artificial Intelligence / Academic Integrity Working Group

APPROVED GENERAL FACULTIES COUNCIL, DECEMBER 18, 2023

Report to the Teaching and Learning Committee, General Faculties Council

"Generative AI can be defined as a technology that leverages deep learning models to generate human-like content (e.g., images, words) in response to complex and varied prompts (e.g., languages, instructions, questions)."
(Lim et al., 2023)

Introduction

The Teaching and Learning Committee of the General Faculties Council formed a working group, Artificial Intelligence/Academic Integrity (AI²), on February 13, 2023.

The AI² Working Group was asked to consider the generative AI (GenAI) tools, pedagogical research, and best practices and advise the General Faculties Council Committee on Teaching and Learning regarding the implications for teaching and learning. To accomplish our work, we formed smaller interest groups and came together as a whole group every few weeks between March 2023 and September 2023.

This report was completed in October 2023, with most of the work taking place in the spring and summer of 2023. This is important to note, given the quick pace of technological development. The AI² Working Group strove to consider recommendations, principles and guidelines that could provide practical guidance in this quickly evolving area.

Beyond our Scope

This report does not include a discussion of GenAI use in research, scholarly activity, copyright or for administrative, advising, or admission processes.

Summary of Recommendations

The following are the Working Group's recommendations. Given the fast pace of change in this area, these are the recommendations today but should be revisited in the future.

1. Principles for the Use of GenAI for Teaching and Learning (summarized in Table 1) should be understood by faculty members, staff, and students.
2. The way GenAI tools are used will depend on the discipline and context. Therefore, how GenAI is used (or not used) is discipline and context specific.
3. If individuals, departments, programs, schools or faculties are considering ways GenAI can be used for teaching (such as content generation or recommendation, assessment or feedback) they should consider the [Principles for the Use of Generative AI for Teaching and Learning](#).
4. The Centre for Teaching and Learning should provide professional development, resources, and a forum for faculty to continue to learn about GenAI ([this has started](#))
5. The Writing Centre should be considered a place where students can better understand the appropriate use of GenAI tools in writing.
6. Course outlines and assessments should address the use of GenAI since using GenAI is a form of student misconduct when its use (or attempted use) falls outside of assignment guidelines and instructions. Language that can be added to course templates and outlines is included in [Appendix III](#) and available from the [Centre for Teaching and Learning](#).
7. Faculty members should consider alternative approaches to evaluating student learning, reducing the impact of GenAI on traditional assessments and promoting skills and abilities that are highly valuable after graduation.
8. Programs should consider including discipline-specific learning outcomes to give students an accurate and balanced understanding of GenAI capabilities and limitations, as well as the responsibilities and ethical considerations that come with it.
9. MacEwan University should evaluate and consider site licenses for GenAI tools and enable GrammarlyGO for all accounts for the Spring 2024 Term to give students fair and equitable access.[1]
10. MacEwan University should support and encourage the Scholarship of Teaching and Learning (SoTL) in this growing area of research.
11. MacEwan University should *not* implement plagiarism or GenAI detection tools.
12. The conversation must continue, and we can expect policies, guidelines, recommendations, and resources to evolve. GFC's Teaching and Learning Committee should continue to be engaged and consulted.

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[1] GrammarlyGO is included in our current Grammarly Pro license.

Principles

We recommend these six principles for the ethical use of GenAI (see Appendix II).

Table 1: Principles for the Use of Generative AI
for Teaching and Learning

1. Reciprocity	Faculty members and students must disclose their material use of GenAI to each other.
2. Transparency	The use of GenAI should be explained and understood as a means toward human development.
3. Community of Scholarship	GenAI must serve the purpose of a community of learning and scholarship of faculty members and students.
4. Fairness	Fair use of GenAI means that GenAI may assist in learning but does not replace human learning or judgment.
5. Right to Privacy	GenAI must not compromise the ability to think, speak, and express ideas without unnecessary monitoring or surveillance.
6. Non-Discriminatory	GenAI algorithms and systems should be used and designed in an equitable way.

Given the need for guidance before the Fall term began, some of the discussions of the Working Group have already been incorporated into the Teaching and Learning website.

Generative AI in teaching and learning (see Appendix IV)

Regarding other questions in the Working Group's mandate, many of the discussions and resources are incorporated into the information on the Centre for Teaching and Learning website. Working Group members had robust discussions on the place of GenAI in teaching and learning. Many members are optimistic about the future, while others are concerned. It is expected that GenAI's effects will differ, based on the program of study. Learning is a human endeavour meant to develop human capacities and characteristics. AI can assist in that endeavour but the degree that it displaces human thought and inquiry serves to diminish human development. (Appendix II)

The Hype and the Evidence

ChatGPT was released in late 2022 and set off a flurry of articles, podcasts, discussions, and predictions for the impact of GenAI on teaching and learning (Appendix VI). While much of what is said is optimistic regarding the positive change there are both cautionary notes (Chomsky et al., 2023; Swartz & McElroy, 2023) and recommendations to mitigate the potential

pitfalls (Baidoo-Anu & Owusu Ansah, 2023; Chan & Lee, 2023; Dai et al., 2023; Filgueiras, 2023; Orlando, 2023; Senechal et al., 2023).

> *As GenAI continues to evolve, further research is needed to examine the long-term impact of GenAI integration on teaching and learning outcomes and to develop evidence-based guidelines and policies that promote responsible use of this technology in higher education. Additionally, educational institutions must foster critical thinking and digital literacy skills in students, ensuring that they are able to evaluate the credibility of information and use GenAI technologies in a responsible and ethical matter. (Chan & Lee, 2023, p. 22)*

In 2019, even before the release of ChatGPT, the Beijing Consensus defined "how to apply artificial intelligence in education, responsibilities, and general principles of AI governance . . ." (Filgueiras, 2023, p. 9). By the end of February 2023, there were 55 articles included in a rapid review of the literature (Lo, 2023). This early research was based on the tools as they existed then. The review found that ChatGPT's performance varied across subject domains but does have the potential to serve as an assistant for instructors and as a virtual tutor for students.

Using a thing ethnography approach, ChatGPT is interviewed as a subject (Michel-Villarreal et al., 2023). The themes that emerged in the conversation are opportunities, challenges, barriers, and priorities (Figure 1).
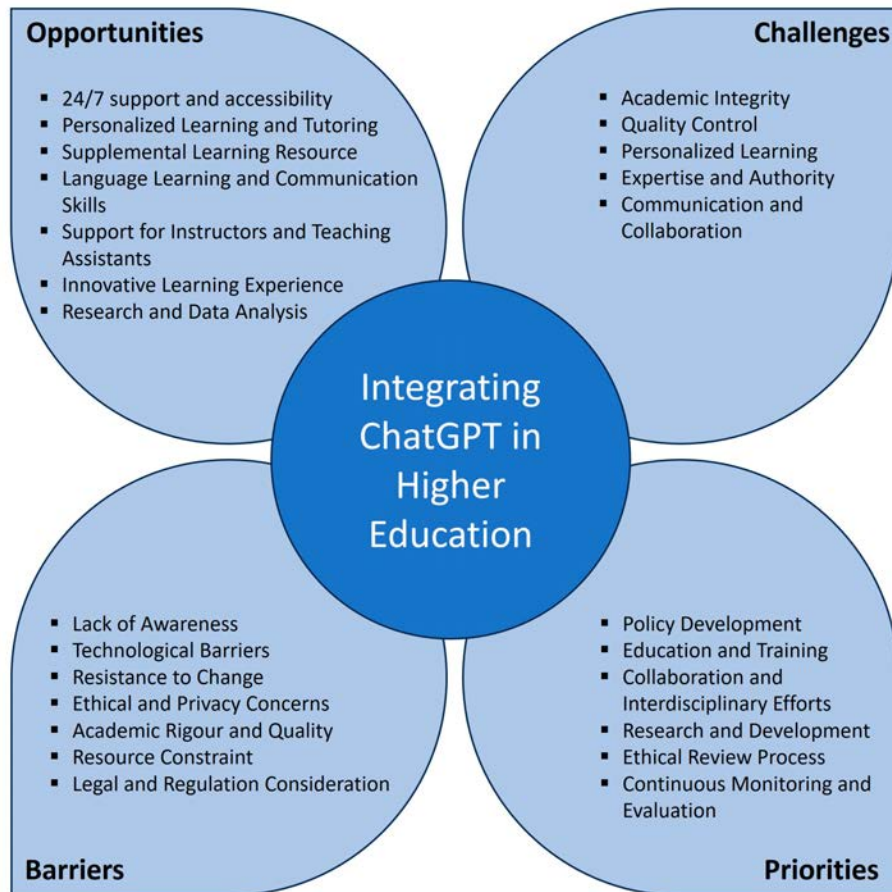
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Figure 1: Themes emerging from the interview (Michel-Villarreal et al., 2023)

Plagiarism and AI Detection Tools

To the question of plagiarism and GenAI detection tools, the Working Group recommends that MacEwan University <u>not</u> license such a tool.

We first considered mandatory requirements for tools:

1. Ability to integrate with paskwâwi-mostos mêskanâs;
2. Does not, by default, copy student work in the vendor database;
3. Is accurate in both plagiarism and GenAI detection.

We identified Copyleaks (https://copyleaks.com) as possibly meeting the requirements and had a trial of the product in spring 2023. We later determined that the default behavior of Copyleaks was to copy students' work to the Copyleaks database. It was possible to change this, but it needed to be done by individual instructors. Comprehensive testing also found that it wasn't very accurate as a plagiarism text-matching solution (for example, it didn't include articles behind paywalls), and it could be easily fooled on the question of AI detection.

In the technology arms race, it is unclear whether plagiarism and GenAI detection tools will be useful in the future. Due to the issues noted above, the Working Group does not recommend the University pursue plagiarism and AI detection tools at this time.

Academic Integrity

Beyond detection, the Working Group discussed the impact of GenAI and academic integrity. The Student Academic Integrity Policy contains language that covers the use of GenAI tools, "Obtaining an Unfair Advantage", that is "Gaining, or attempting to gain, an unfair advantage not afforded to all students in an authorized fashion." For now, we recommend emphasizing in course outlines and in class what is allowed and expected regarding GenAI. (See Appendix V).

GrammarlyGo

In March 2023, Grammarly introduced an AI writing tool called GrammarlyGO. As part of our existing license, Grammarly gave MacEwan the choice of turning on GrammarlyGO as a default for all users. We decided to consider this recommendation as part of the Working Group's discussion.

As a result of testing and our discussion on the topic, the Working Group recommends that GrammarlyGO be added as a default for all MacEwan University Grammarly Pro accounts for the Spring 2024 Term, only after students, faculty, and staff have been informed and resources are in place to support GrammarlyGO. The Writing Centre has a role to play in helping students understand how GenAI can assist in their work. We are recommending that GrammarlyGO be added as a default because it is already included with Grammarly. Moreover, pilot members found it was a helpful tool that explained grammatical errors/issues well even where it did not illuminate thought and effort. Further, if we do not add it, students who can pay extra for other existing services (e.g., ChatGPT-plus) may have an unfair advantage.

Course Outline Guidelines

Near the beginning of our mandate, we realized faculty members were looking for immediate guidance on what to tell students about using GenAI. We created Generative AI Tools Sample Course Outline Statements (April 24, 2023). This document was distributed to Deans and Chairs and posted on the Centre for Teaching and Learning website. The three suggested options to communicate to students are:

- Permitted with acknowledgement; or
- Permitted with prior permission; or
- Not permitted.

We recommend that the Centre for Teaching and Learning review these guidelines at least annually.

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Appendices

Appendix I

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Appendix II

Principles for Ethical Use of Generative AI at MacEwan University

For Faculty Members and Students

1. Reciprocity,
Which means:

2. Mutual Transparency
    i. Explicability of what AI does and accountability for its use.
    ii. Meaning that AI can only, at best, recommend a course of action but ultimately, decisions affecting students in a material way must be made by faculty members. Faculty members have an obligation to inform students of their material use of AI in the course.
    iii. Students have a reciprocal obligation to declare use of AI and be able to explain the results of its use. E.g., what facts, arguments, data and results were generated by AI and how that assists in the development and fruition of the student's work.

Resulting in a:

3. Community of scholarship or a communion of inquiry, consistent with the mission of the University.
Which means that:

4. Use of AI must be a fair use of facts, arguments, data and results. Fairness is a human attribute that cannot be automated.
    i. Learning is a human endeavour meant to develop human capacities and characteristics. AI can assist in that endeavour but the degree that it displaces human thought and inquiry serves to diminish human development.
    ii. AI must comply with existing ethical principles of fairness and prohibitions of unjustified discrimination.

That also includes;

5. Privacy protections for students.
All of the above also include that;

6. AI cannot create new unjustified criteria of discrimination. Faculty members must be alert to the capacity of AI to analyze student data in unobvious ways that may result in unjustified discrimination. E.g., "fast scrollers" as evidence of inattention or even academic dishonesty.

Faculty members should use counterfactuals to explain the above principles. E.g., You would have attained a better mark had you not included a defective reference to a fictitious journal likely created by an AI algorithm.

Appendix III

Generative AI Tools
Sample Course Outline Statements

This document is intended as a short-term resource to provide guidance to faculty for optional inclusion in course outlines. As these tools continue to develop, and the institution continues to explore the opportunities and challenges involved, these recommendations will change.

To learn more about the use of generative AI tools in your course, please contact *The Centre for Teaching and Learning* (teaching@macewan.ca). Please contact the *Academic Integrity Office* (aio@macewan.ca) for specific academic integrity assistance. Considering the rapid pace of technological development, please consult these offices for updates.

The three suggested options to communicate to students are:

1. Permitted with acknowledgment; or
2. Permitted with prior permission; or
3. Not permitted.

1. Permitted with acknowledgment

In this class, students are allowed to use generative artificial intelligence tools, including for text, music, or art, such as ChatGPT and DALL.E 2. However, you must acknowledge any use of such tools in the following ways:

*   Please include a statement in any assessment that uses an AI generation tool explaining what you used the tool for and what prompts you used to get the results.
*   Please indicate exactly what content is generated by, paraphrased from, or based on an AI generation tool using quotation marks, italics, or another format indicated by your instructor.
*   Referencing: Check updates on the style guide you use (for example, APA) for guidance on how to cite AI and/or consult with the Library (library@macewan.ca).

Please be aware of the limitations of ChatGPT, including the following:

*   Tools like ChatGPT are known to have issues with providing incorrect and false information. The information from these tools should not be used without confirming it with another source. It is your responsibility to check the information provided for errors or omissions.

2. Permitted with prior permission

Students can use generative artificial intelligence tools, including for text, music, or art, such as ChatGPT and DALL.E 2, on their assessments in this course in the following cases:

a) The instructor has explicitly indicated that you can use the tool in a particular way. In this case, all other use would be unacceptable.

b) You have sought permission from your instructor in advance, including how and why you intend to use the tool.

If your instructor consented to using such tools, you must acknowledge them. However, you must acknowledge any use of such tools in the following ways:

- Please include a statement in any assessment that uses an AI generation tool explaining what you used the tool for and what prompts you used to get the results.
- Please indicate exactly what content is generated by, paraphrased from, or based on an AI generation tool using quotation marks, italics, or another format indicated by your instructor.
- Referencing: Check updates on the style guide you use (for example, APA) for guidance on how to cite AI and/or consult with the Library (library@macewan.ca).

Please be aware of the limitations of ChatGPT, including the following:

- Tools like ChatGPT are known to have issues with providing incorrect and false information. The information from these tools should not be used without confirming it with another source. It is your responsibility to check the information provided for errors or omissions.

3.Not permitted

Students are prohibited from using generative artificial intelligence tools for their assessments in this course. The use of artificial intelligence tools in this course may be considered a form of academic misconduct.

Note: This option is not recommended for some disciplines because of the increasing integration of Generative AI into tools that students use to enhance their learning experience.

These statements were developed in consultation with the Artificial Intelligence / Academic Integrity Working Group (2023) and adapted from The University of Auckland's TeachWell site.

Appendix IV

Recommended Practices for the use of Generative Artificial Intelligence in Your Class

General Practices

Discuss AI openly with your students: This new and developing technology should be part of the start-of-term conversation that covers the expectations and norms in your course. Consider using some of the following questions to guide conversations with your students.

What do you know about generative AI and tools like Chat GPT, Beautiful AI, and BARD?

Have you used these tools? Why or why not? Have you ever tried any of these tools before? If you have, what made you want to use them? If you haven't, what's the reason?

Have you used AI in school? Did you ever use AI tools for learning in your assignments? If so, how did you use them?

How can you ethically use AI tools to help you learn? How do you think you can use AI tools in a fair and good way to support your learning? What rules or ideas do you think are important to use them the right way?

Acknowledge that different instructors, courses, and assignments will have different rules and that students cannot assume that what's permitted in your class will be permitted in others.

Define your perspective: Be clear and transparent about your stance on generative AI in your course.

Develop a formal syllabus statement: Syllabus statements will vary widely. In some courses, AI use may be encouraged, discouraged, or permitted to be used in some ways but not others or for some assignments but not others. Include a general statement indicating the permissions, contexts, and expectations for citation or disclosure that students must be aware of, and, if necessary, include more specific expectations with assignment guidelines. Sample statements are available on the Centre for Teaching and Learning website.

Reinforce the rules in your course: Remember that students and faculty alike are navigating complex attitudes and varying expectations and understandings of AI use, so an initial discussion and written statement will need to be supported by ongoing conversations and reminders about AI use in your course.

Consider teaching students to critically engage with content generated by AI tools: Topics might include the implications of generative AI use for academic work, and discipline specific professions. In an age of misinformation, encourage students to question the source of information, foster competencies that discern the veracity of information and develop analytical skills. Explore the use of various tools to verify information.

Pedagogical Practices

Learning outcomes

Identify the relevance of AI: Determine if there are specific areas or disciplines where AI can be effectively applied within your course. Consider the potential benefits and how AI can enhance the learning experience or provide valuable insights.

Revisit existing learning outcomes: This presents a valuable opportunity to critically examine your learning outcomes so that your choices about AI use in your courses are fully intentional and considered. For example, is it necessary for your students to *know how to compose a piece of writing* or to *know how to present correct information well*? If AI use inhibits key learning outcomes, consider your assignment design and incorporate more scaffolding, process reflection, demonstrations of learning, or other steps to achieve those outcomes more reliably.

Define AI-related learning outcomes: Develop learning outcomes that reflect the disciplinary or general AI literacies students should acquire. These outcomes can include understanding the basic concepts of AI, its applications, ethical considerations, and the ability to use AI tools.

Discuss within your department how AI will affect program-level outcomes: Within programs you will need to work together with other faculty to ensure that over the course of a student's program of study, they are still achieving the appropriate competencies—both those that necessitate or are supported by AI use and those that cannot be achieved through AI.

Reference use of AI: Follow the citation practices recommended in this guide. Consider the section *Principles for Ethical Use of Generative AI at MacEwan University* found on this page.

Activities and assessment

Consider using multiple forms of activities and assessments: Avoid a snapshot of student performance by offering a variety of activities and assessments that give students diverse opportunities to learn and demonstrate learning outcomes over time. The 4 National Association of Student Personnel Administrators (NASPA) has a list of assessment methods including portfolios, observations of behaviour, and juried reviews of student projects and performances.

Strategic use of AI: Consider how you might design activities and assessments to meet AI-related learning outcomes. Learn more from Common Sense Education.

Inclusivity: Be aware that students' access to AI tools will vary as well. Some will be working only with free versions, and some will have the means to access the paid versions that will become more available.

There may be some students who are opposed to using AI tools. Some students don't want to use AI or have legitimate concerns about privacy, data, etc. Consider offering alternative forms of activities and assessments for those students who might object to using the tools, assuming that AI is not a core part of the course.

Assess both process and product: Consider requiring students to submit outlines, drafts, and other intermediary work in addition to the final submission to show the process used to create the final product.

Make expectations explicit: Include AI-specific assessment criteria in assignment rubrics or grading forms if they are part of your course's learning outcomes.

Test your assessments: Experiment with the technology to see what sort of responses it might generate for an assignment. The results may inform how you modify your assignment to promote more authentic work.

Communicating to Students

Differentiate between generative artificial intelligence (GAI) and other AI systems

While traditional AI systems, such as driverless vehicles, speech and facial recognition, and personal assistants, provide decisions and descriptions, generative AI simulates human intelligence to create new content, including but not limited to audio, text, code, video, images, and other data.

Explain the benefits, limitations, and risks of using AI to pursue educational goals

Benefits: Discuss with students how generative AI can enhance their learning, collaborative knowledge-building processes, and digital literacy Consider demonstrating how generative AI may help students meet learning outcomes, clarify or deepen their understanding of core concepts, and improve their critical thinking and problem-solving ability.

You should continue advocating for student assessment and the use of Access and Disability Resources (ADR) at MacEwan via AI technologies such as text-to-speech and speech-to-text designed to assist students with disabilities. Discuss how AI can support advancements in the student's area of interest.

Limitations: While AI has many benefits to augment student learning, there are limitations to what AI can do. Students need to be informed consumers of AI use and integration. They should understand that AI is a tool, not a substitute or replacement of the human mind for innovation, critical thinking, knowledge translation, creativity, or engagement. You can focus attention on these attributes, abilities, and skills that can hardly be replicated by AI.

Risks: Discuss academic integrity issues with students in the context of your course and evaluation methods. Proactively address expectations, standards, and codes of conduct to help students navigate expectations.

Whether students use AI independently or as part of required course resources such as simulation, tutoring, or AI-driven personalized learning systems, discuss the safe use of the technology. Faculty may consider connecting AI use to the student's future profession. Being transparent in its use, limitations, and boundaries reinforces ethical conduct within educational and professional practice areas.

Depending on the department and course being taught, you may want to discuss with students the societal risks of AI—which include privacy, surveillance, perpetuating gender and racial bias, and discrimination that can occur with automated scoring systems (Akgun & Greenhow, 2022).

Discuss the impact of spreading misinformation or results in inaccurate output/outcomes with students. According to the UCLA guide for the use of generative AI, data is collected from the past and tends to have a regressive bias that fails to reflect the progress of social movements. AI is prone to filling in replies with incorrect data if insufficient information is available on a subject .

Discuss how to be accountable and responsible users of AI

You should encourage accountability and responsibility in the educational use of AI by clearly outlining how AI can/is being used in the course (see prior section). Also, consider discussions

about AI to empower students to use this technology constructively and creatively to benefit their education (Ackerman, 2021). The following recommendations promote responsible use of GAI:

- Encourage students to focus on achieving learning outcomes and being accountable and responsible for submitting independent and/or properly cited group work where AI was utilized.
- You may also want to discuss the societal implications of responsible AI use.
- Explain to students that faculty have different perspectives on using AI in courses. What one faculty member may allow, another may not.
- Be clear in your expectations of AI use throughout the course by communicating in various ways on course outlines, syllabi, assignments, and exams and verbally in class and through announcements on mêskanâs.
- Remind students of MacEwan's Academic Integrity policy and that unauthorized use of AI, using AI to gain an unfair advantage, and failure to cite AI data on assessments is a breach of academic integrity.

Citation Practices

Discuss acknowledging AI in assignments with your students: The goal of citation practices is to be transparent about the use of sources and tools. Be clear about how you would like your students to acknowledge their use of generative AI tools in their assignments, exams, etc.

Include how to acknowledge AI in your course outlines, syllabi, assignments, and exams: Provide examples or link to resources with examples that your students can use for guidance on how to acknowledge their use of specific tools (see below for direct links). Example wording can be found in AI: Course outline templates on the Centre for Teaching and Learning website.

Refer students to the official guidelines from the appropriate style guide:

APA ChatGPT

MLA Generative AI

Chicago ChatGPT

Chicago DALLE

Further support available: Consult with the Library.

Ensuring equity, access, and participation

Be aware of the limitations that students may have accessing generative AI and plan accordingly. This might mean ensuring that there are adequate campus resources when using AI during on-site session by booking a campus computer lab or using in-classroom device loan programs through the Library.

Here are a few considerations:

1. Technological Barriers: Generative AI often requires access to high-performance computing resources and advanced hardware, which may not be readily available to all

students. Limited access to devices, internet connectivity, or outdated technology can create barriers for students in utilizing generative AI tools effectively.

2. Cost and Affordability: Some generative AI applications and platforms may come with a significant cost, making them inaccessible to students with limited financial resources. Licensing fees, subscription models, or the need for specialized equipment can create inequalities in access that will hinder certain students from benefiting fully.

3. Skill and Knowledge Gap: Using generative AI tools effectively may require a certain level of technical skill or familiarity with the underlying concepts. Students who lack prior experience or training in working with AI technologies may face challenges in using generative AI tools to their fullest potential.

4. Bias and Ethical Concerns: Generative AI models are trained on existing data, and if that data is biased or contains discriminatory patterns, it can result in biased or unfair outcomes. Students from historically excluded communities may face the risk of encountering biased content or experiencing discriminatory effects when using generative AI tools.

5. Learning Preference Compatibility: While generative AI can offer personalized learning experiences, it may not align with every student's preferred learning style. Some learners may require more interactive or hands-on approaches, so relying solely on generative AI may not meet their individual needs.

It is essential to consider these limitations and address them proactively to ensure equitable access to generative AI technologies and maximize their benefits for all students.

Inclusion and AI

General practices

Keep principles of universal design for learning in mind when planning how to include or exclude generative AI in a course. For example, creating limits on the types of assessments such as moving to in-class timed assessments or oral assessments will limit the ways in which students can represent their knowledge and may increase barriers for students.

Clarify for students the tools that are allowed and how: Depending on the language that is used, restricting generative AI can unintentionally discourage students from using other assistive tools such as Grammarly or spell check out of fear and misunderstanding of the differences with generative AI. In addition, with predictive text features in more and more software programs, this line is continuing to blur.

Pedagogical approaches

Integrate appropriate use in class: Uses such as generating opening sentences or paragraphs, creating outlines, identifying additional examples, explaining complex ideas in different voices can support a variety of students including those who have disabilities. Demonstrating how to use these approaches can help students understand the differences between appropriate and inappropriate use. They can also create increased scaffolding for student learning without increasing the time required for instructors.

Help students think critically about AI-generated text or other materials: One potential concern regarding inclusion of AI-generated materials is that they can remove the

student's unique voice. This can happen as the AI-generated materials, unless prompted to do otherwise, typically use grammatical structures that are recognized as more formal. By having students complete critiques of AI-generated responses or compare their own writing with AI-generated responses, faculty can support them in identifying their voice and in asking questions about the validity of the AI-generated responses.

Resources

Montclair State University has strategies to mitigate the use of AI that include promoting authentic assessment, integrating a variety of assessments, requiring drafts, and more.

Artificial intelligence in education: Addressing ethical challenges in K-12 settings provides a comprehensive exploration of Artificial Intelligence (AI) within the context of education, tackling various aspects: defining AI, AI in education

The United States Department of Education's Artificial Intelligence and the Future of Teaching and Learning guide is primarily directed at teachers in the K–12 system, but it covers many topics of interest to instructors in higher education as well, such as future AI competencies, issues of surveillance and privacy, and use of AI in assessment.

The National Centre for AI published A Generative AI Primer for post-secondary educators as a very brief overview of AI tools currently available (as of May 2023), the impacts of generative AI on assessment, examples of use by students and instructors, and considerations for curriculum adaptation.

UNESCO's ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide provides an overview of ChatGPT and other AI tools, applications of ChatGPT and AI in higher education, and challenges and ethical implications of this technology.

Resources on ChatGPT/AI and Education is a Padlet curated by Dr. Heather Brown that offers an extensive and organized collection of articles and documents. Categories include policy statements, syllabus statements, and citation, tips for using AI in courses, student perspectives, resource hubs, AI detection tools, and new and forthcoming academic research.

The Sentient Syllabus Project is an international, collaborative project led by a group faculty from Canada, the United States, Germany, and Japan, and it is open to submissions from faculty worldwide. Centred around the three principles of Achievement, Truth, and Transparency, the *Sentient Syllabus Project* seeks to explore both philosophical and practical ways in which post-secondary educators can elevate expectations and humanize education to protect and preserve the core values and purpose of higher education while accommodating the new possibilities and realities of AI.

How ChatGPT Could Help or Hurt Students with Disabilities is an article by Beth McMurtrie in *The Chronicle of Higher Education* that provides ideas of the benefits, challenges, and opportunities of generative AI tools for students with disabilities and how faculty choices can make a difference.

The UDL Guidelines is a website by CAST with lots of information about UDL and how to implement it. This is not specific to AI.

Guidance for the use of generative AI provides instructors with strategies for adopting AI in a responsible, ethical manner, and discipline-specific innovations.

Using AI with neurodivergent students is a webinar presentation with many ideas and challenges of how generative AI can benefit and challenge neurodivergent students.

Helping students of all ages flourish in the era of artificial intelligence, MIT has launched a new initiative called RAISE (Responsible AI for Social Empowerment and Education) to promote the understanding and use of AI across all segments of society. The project aims to develop new teaching approaches and tools for learners from preK–12 to the workforce, making AI education more accessible and equitable. The initiative will prioritize diversity, inclusion, and ethics in AI education and help to address historical biases and inequities in the field.

Guidance for the use of Generative AI is a guide created by the UCLA Centre for the Advancement of Teaching to provide instructors with strategies for adopting AI technologies.

Artificial intelligence in education aims to help practitioners reap the benefits and navigate ethical challenges of integrating AI in K–12 classrooms, while also introducing instructional resources that teachers can use to advance K–12 students' understanding of AI and ethics.

Generative AI vs. Traditional AI: What's the Difference? describes types of AI based on their capabilities and functionalities and the key differences between them. The application of AI in various industries is briefly identified.

Guidance for the use of Generative AI is a guide created by the UCLA Centre for the Advancement of Teaching to provide instructors with strategies for adopting AI technologies.

Appendix V

AI and Academic Misconduct

Is AI allowed in the classroom?

MacEwan faculty may determine guidelines around the use of artificial intelligence in their courses. These guidelines may be a standard for the entire course or may vary, depending on the assignment or the evaluation criteria.

It is crucial that you communicate to each of your classes to what extent (if any) AI is permitted in your course/courses or assignments. In the same way that we now communicate, early and often, our expectations on academic integrity with respect to use of sources, citation, and so on, so too must we now communicate whether and to what extent our students may (or may not) use AI on the assignments we give.

When is using AI a form of academic misconduct?

Using AI is a form of student misconduct when its use (or attempted use) falls outside of assignment guidelines/instructions communicated to the class. According to MacEwan's Student Academic Integrity Policy (SAIP), any action that results in a student gaining an "unfair academic advantage thereby compromising the integrity of the academic process" can be considered academic misconduct (Section 4.0, SAIP). In the classroom, this can include but is not limited to:

- Using AI when it is not permitted

- Using AI to generate ideas for academic work that should be completed independently

- Failure to appropriately acknowledge AI use if it is permitted

- Excessive use of AI

- Failure to verify AI citations (fabrication and falsification)

What form of academic misconduct is it?

AI as a form of academic misconduct may be defined as the improper and/or unauthorized use of AI in assessment. Thus, if a student has used AI contrary to instructions in any kind of assignment that will be assessed, this can constitute academic misconduct.

It is important to note that AI may be combined with other forms of academic misconduct that are listed in MacEwan's Academic Integrity Policy: "Cheating, Fabrication and Falsification, Improper Collaboration, Multiple Submissions, Plagiarism, or helping or attempting to help another person commit an act of Academic Misconduct, and any other form of Obtaining an Unfair Advantage" (Section 4.0, SAIP), that is, using AI improperly may fall under more than one of the categories noted above.

Should I use an AI detector?

Artificial intelligence is evolving at a rapid pace, closely followed by new detectors and verification tools. However, it is usually not recommended to rely on online AI detectors, for the following reasons:

- Unlike standard plagiarism detectors, AI detectors do not provide substantial evidence or rationale to support the results provided.

- Current detection tools are also known to be unreliable and present concerns regarding student engagement, privacy, and the perception of trust.

  o OpenAI, creators of ChatGPT, have confirmed that their detector can only identify 26% of AI-written text correctly and is less reliable when shorter passages are presented.

  o GPTZero claims a 98% accuracy rate, but false reports have prompted accusations of academic misconduct, increasing student stress, and in some cases, delaying graduation. Further, GPTZero's creator Edward Tian has stated that GPTZero will be moving away from detecting artificial intelligence and towards "highlighting what is most human."

If you do choose to use a detector, your students should be informed about the detection tools before they complete academic work. If students are unaware that you will be using an AI detector, this use could be considered deceptive or antithetical to established ethics of teaching and learning.

Overall, detection tools should not be used unless an initial area of concern has been identified. Avoid using detectors as a preventative measure before grading. Note, too, that results from a detector should not be the only evidence or rationale presented to support an allegation of academic misconduct.

How then do I determine whether AI has been improperly used?

As with all forms of academic misconduct, there is no one infallible or "one size fits all" answer, particularly since AI is constantly changing. It will likely be impossible to determine for certain whether AI has been used. However, some patterns in student writing have emerged that may indicate the use of AI:

- Fabrication/falsification

  o When generative AI is unable to find the information requested, it will sometimes fabricate material and/or verify incorrect details to satisfy the prompt (e.g., false cases and court citations).

  o Examples of falsification can include falsifying or fabricating such details as page numbers, citations, character or plot points, journal article titles, journal article arguments.

- Repetition and paraphrasing

  o In longer passages in particular, generative AI can fall into a structural pattern of repetition and paraphrase.

- Awkward, unnecessary, or inappropriate signaling statements, or the unnecessary repetition of such formal statements, such as "In this paragraph, I will discuss" or "In conclusion, this paragraph/paper talked about" may indicate AI use. **Caution: Inexperienced students or students with English as an additional language may present similar writing structures. Review the student's submissions to date before initiating the academic misconduct procedure.

  - o Repetition may also take the form of repeated paraphrasing multiple times throughout the assignment, for example, of a definition or concept.

  - o Work from two or more students that displays very similar sentence structure and/or format/organization with only subtle differences in phrasing may indicate artificial intelligence use. While this may also be evidence of collaboration, note that this characteristic's existence is still worthy of investigation.

- Vague, Unrelated, or Overly Detailed Statements

  - o Rather than a brief description, the text may take a sudden turn to address another topic or continue to expand on the initial statement unnecessarily.

  - o Responses may also be difficult to read or comprehend while seeming overly dry, formulaic, or lengthy.

  - o Responses may fail to address prompts clearly and directly.

  - o Generative AI produces results based on the quality of prompts provided. Responses that only address the prompt at the start of the body of work or fail to carry a position or train of thought may involve the use of AI.

  - o Reflective assignments may seem generic, impersonal, or insincere.

  - o Responses may be uneven in quality.

What should I do if I suspect the improper use of AI?

If you have reason to suspect a student has used AI in an improper or unauthorized way in your classroom, visit MacEwan's Academic Integrity site and follow the procedure for suspected violations, just as you would with any other academic integrity issue, beginning with an email invitation for the student to meet with you. You are also most welcome to consult with an Academic Integrity Officer, who can provide you with support and advice.

Appendix VI

Further Reading and Research

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