

BHNCDSB Guidelines for Responsible Educator Use of Artificial Intelligence

Summary

The Brant Haldimand Norfolk Catholic School Board's Guidelines for Responsible Educator Use of Generative Artificial Intelligence (GenAI) are designed to provide educators with a roadmap for the safe and effective use of GenAI tools, in compliance with existing regulations. Recognizing both the potential risks and benefits of these tools, the guidelines aim to foster informed decision-making that not only prevents harm but also amplifies the impact of our Catholic Social Teachings.

Artificial Intelligence can be categorized into three types:

1. **Reactive AI:** These are systems that respond to specific requests but do not have the ability to form memories or use past experiences to inform current decisions. Examples include virtual assistants like Siri, Alexa, and Google Assistant.
2. **Predictive AI:** These systems use past data to predict future outcomes. They are commonly used in Netflix recommendations, Grammarly, predictive text, and Google Maps.
3. **Generative AI:** These are the most advanced AI systems that can generate new content. Examples include ChatGPT, Copilot, and Gemini.

This document outlines our current understanding and best practices for the use of GenAI. Despite the rapid advancement of AI, it's crucial to remember that our duty of care and our commitment to education, as stipulated by the Education Act, remain steadfast.

The application of AI should be a cyclical process that begins and ends with human involvement. It starts with human inquiry, which prompts the AI to generate output. This output, however, is not the final product. It should be subjected to human reflection, insight, and edits to ensure a comprehensive understanding of the content produced by the AI. This iterative process underscores the role of AI as a tool that enhances human intelligence, rather than a replacement for it.

"The urgent need to orient the concept and use of artificial intelligence in a responsible way, so that it may be at the service of humanity and the protection of our common home, requires that ethical reflection be extended to the sphere of education and law."

Pope Francis (Fung, 2023)

Acknowledgement

This document was produced using assistance from ChatGPT and Copilot and used the [Waterloo Catholic District School Board \(wcdsb.ca\)](https://www.waterloocatholic.ca/wcdsb.ca) AI Guidelines as a starting point. The content has been thoroughly examined, modified, and refined from any AI-generated outputs. BHNCDSB is accountable for this document.

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Intention

The purpose of this document is to provide clear guidelines for K-12 educator use of Generative Artificial Intelligence (GenAI) within the Brant Haldimand Norfolk Catholic District School Board (BHNCDSB). This document will provide suggestions and considerations on how to use GenAI rooted in a human-centered approach to foster equity, inclusion, and belonging. We aim to empower and support educators to enhance their teaching practice through meaningful use.

GenAI represents a significant advancement in educational tools, offering teachers the ability to enhance lesson planning, create diverse learning materials, and provide personalized educational experiences for students. While it's natural to feel apprehensive about new technologies, GenAI is designed to augment, not replace, the human element in teaching. By automating routine tasks, it allows educators to devote more time for student interaction and individualized instruction. Embracing this technology is a step towards fostering a culture of innovation and preparing students for a future integrated with AI.

“In responding to long-standing educational issues, it is key to uphold the idea that human capacity and collective action, and not technology, is the determining factor in effective solutions to fundamental challenges faced by societies.” (UNESCO, 2023, 7)

Rationale

These guidelines aim to leverage the potential of GenAI to enhance learning experiences while upholding our vision of our Catholic Schools.

The implications and potential uses of GenAI in education is powerful and will alter many aspects of our current educational systems. BHNCDSB aims to navigate the evolving landscape of GenAI in education by establishing guidelines that promote safe, ethical, and effective use of GenAI tools within K-12 education. These guidelines are grounded in Catholic Social Teachings and the board's commitment to responsible digital citizenship. At BHNCDSB we will be taking a cautious and informed approach to safeguard privacy, uphold academic integrity, and foster inclusivity and equity while leveraging GenAI to support educators.

“By freeing humans from some categories of lower order thinking skills, this new generation of AI tools might have profound implications for how we understand human intelligence and learning.” (UNESCO, 2023, 7)

What is Artificial Intelligence and Generative AI?

Artificial Intelligence (AI) is an advanced computer technology that can do tasks typically requiring human intelligence. These tasks include understanding spoken language, learning from experiences, and solving complex problems.

Generative Artificial Intelligence (GenAI) is AI that can create content by taking instructions from users, usually in the form of short written prompts and a back-and-forth chat.

GenAI tools are trained on Large Language Models (LLMs), which analyze vast internet datasets, identifying patterns similar to human learning. These models use this data to generate content from a prompt. Their performance can be improved with human supervision, reinforcement learning, and user feedback, enabling GenAI to produce human-like content.

GenAI can be a standalone app or integrated into existing tools. Examples include ChatGPT, Copilot, Quillbot, Magic School, Canva, DALL-E, EduGPT, Adobe Firefly, Khanmigo, and others.

To maximize AI's educational benefits, teachers and students need a basic understanding of how these models work. It's key to note that LLMs are different from search engines and require a unique approach for best results.

Banning or Blocking GenAI

In the rapidly evolving landscape of technology, outright banning GenAI in K-12 education may hinder the development of crucial digital literacy and critical thinking skills in students that employers will be looking for in the coming workforce (McKinsey & Company). While there are valid concerns and ethical considerations surrounding GenAI, many experts argue for responsible development and use of GenAI rather than complete avoidance or blocking as this may be counterproductive (Yoder, 2023).

As educators, it would be unethical to turn a blind eye to a present and future reality where GenAI is integrated into digital tools and technologies. By engaging with GenAI ethically, educators can ensure that the technology enhances, rather than undermines, the educational experience, promoting a learning environment that is innovative, inclusive, and reflective of our evolving digital landscape and preparing students for a future where such technologies will be integral.

GenAI can be an embedded tool within numerous applications and websites. A blocking of all GenAI tools could significantly limit the effectiveness of our Board-approved tools.

Only approved apps can be used with students, even if an app or website is accessible in BHNCDSB networks. The chart below illustrates the differences between the two.

<u>Approved Apps</u> (green & yellow)	<u>Unapproved Apps</u> (red)
Approved apps, tools, and resources that are safe to use are categorized as 'green' or 'yellow' because they have undergone a review process to confirm that they are appropriate and safe for use in BHNCDSB. There are two review categories: Curriculum (pedagogy) Information technology (integration, privacy & security)	Unapproved apps are those that have been explicitly identified as harmful to students and/or our IT systems network and access to those tools through our Wi-Fi networks has been turned off to mitigate harm. Please note that there are many tools that are neither approved nor blocked. Students may be able to access these tools on their personal devices. When personal information or IT security is at risk the tools must go through the review and approval process. For example, ChatGPT is a high-risk tool as it does not notify users if the terms of service have changed, or data breaches(s) occur (ECNO, 2023). Gaining consent does not minimize these risks.
Educators should be promoting to students <u>only</u> apps that appear on the BHNCDSB Approved Apps list which can be found in the BHNHUB.	

Microsoft Copilot



The approved GenAI tool for the BHNCDSB is Microsoft Copilot. The key feature of Copilot over other GenAI tools is its login protection. This ensures that interactions are secure and private. This protection is enabled automatically when logging onto a school computer. At home, students must log in using their BHNCDSB credentials to access the chatbot and be protected.



Practical Applications for AI in Education

The chart below details how GenAI can be integrated in the classroom, from personalized learning to accessibility tools.

Educator Applications	Student Applications
1. Personalize student learning experiences and facilitate UDL practice within the classroom. • variety of instructional levels and/or languages 2. Create differentiated resources. • lessons • texts/activities/practice exercises 3. Support students requiring modified/alternative programming. • increase/decrease expectations for activity • provide extension opportunities (further learning) • adjust resource to fit abilities of multiple learners. • make learner-specific adjustments to a task. • break tasks down into sequential steps • identify gaps in skills and provide steps to fill gaps. • provide structured learning activity ideas for specific skills. • IEP and Auxiliary report comment rephrasing 4. Support students with executive functioning needs • creating success criteria for an assignment • breaking down assignment instructions • create a schedule for task completion. • narrow the scope of assignment without sacrificing core expectations 5. Support Multi Language Learners (MLLs) • accurate translation of materials (incl. dialects) • simplify English texts and instruction. • summary, synopsis or key ideas from text 6. Support evaluation • tracking/data collection • report card comment rephrasing 7. Assist in creation of administrative tasks • lesson plans • presentations 8. Enhance learning • add interactive elements to your lesson. • enhance student engagement and understanding.	1. Writing aid • generate/brainstorm ideas for a project or writing activity. • research specific components of a project or writing activity. 2. Organization/Time management • plan a timeline for completion of assignments or projects (with intermediate deadlines) 3. Clarification on project/assignment instructions • Summarize and/or reword instructions or expectations. 4. Assistance in explaining/simplifying concepts and principles. • break down complex concepts into more manageable chunks. • reword passages/stories to reflect reading at other grade levels. • enable personalized learning experiences based on student needs • provide interactive experience to build deeper understanding 5. Study support • summarize passages/texts • create study guides for tests • generate practice tests • compile cue cards 6. Foreign language assistance • translate • practice new language skills 7. Team collaboration • project planning/role delegation • advice on presenting 8. Accessibility • speech recognition tools • text to speech

Safety, Security, and Privacy Considerations

Before individuals engage in using GenAI tools, safety, security, and privacy need to be at the forefront. BHNCDSB is bound by Ontario's Municipal Freedom of Information and Protection of Privacy (MFIPPA), which guides how the Board implements and manages privacy protections. Some tools may not meet the safety and privacy standards outlined by governance, oversight, or third parties who assist with compliance reviews (e.g., VASP (Vetting Apps for Security and Privacy)), or BHNCDSB's existing policies. This encompasses terms of use, data collection, consent, and use and sharing of information that has been inputted into the tool. Privacy rights are engaged when we are dealing with personal information. Personal information is defined as anything that can identify a specific individual, e.g., name, student number, or even in some cases an IP address. Depending on the tool, the information submitted can be used to further train it and be shared with other users. This can result in privacy breaches, misuse, and misinformation (CyberArk Centre of Excellence, 2023).

As an employee of BHNCDSB, it is essential to understand our policies and practices. If you are considering using GenAI tools for your professional practice that are outside of our recommended list of approved tools, you do so at your own risk without IT or technical support for using, managing, or solving issues related to the tool. Furthermore, use of an unapproved tool, could possibly you and your students at risk and may require intervention/support from the Board's Privacy Officer, including a report to the Provincial Privacy Commissioner. Should you decide to use a GenAI tool, please refer to the "Guidelines for Use" section of the document below. Remember that all the requirements for protecting student personal information and the requirement to comply with the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA), the Education Act, the Ontario College of Teachers Act, etc., still apply.

Ethical Considerations

There is a call to all Canadian Catholics, in the Pastoral Letter on the Use of Social Media [Pastoral Letter on Social Media 2024](#) The Pope shared the, "hopes and concerns about the role of social media in modern life." Also included is the realization and importance that we see, "the potential of putting new platforms in the service of Jesus' vision of the Kingdom of God". The document also reminds us to be, "cautious about online information generated and as Christians, our commitment to truth necessarily implies a commitment to accuracy" and truth. These comments can also be a lens to which we use to ethically consider the use of Generative AI (GenAI).

In creating our guidelines for GenAI, we base our ethical decisions on our existing Catholic teachings. We recognize that some situations will clearly be inappropriate, and we do not need AI to tell us this. On the other hand, there will be situations that align perfectly with our Catholic teachings, promoting spiritual growth and societal well-being. We can think of these as 'red and green light situations,' where red represents clear ethical violations, and green represents situations fully in line with our values.

Before using GenAI tools, users need to think carefully, understand the implications, and adjust their use to protect their own privacy and that of others, while also ensuring ethical and legal use. GenAI tools can sometimes produce biased or inaccurate results and may use intellectual property without your awareness.

GenAI can generate misinformation and hallucinations. The large amounts of data used by GenAI tools make it easier to create content that often looks like it was made by a human. Because these models are designed to create new content, they can sometimes produce inaccurate results.

Human biases, which are naturally part of the process of creating information, can be copied by GenAI tools. These advanced systems create outputs based on existing human-made content, like blogs, websites, and other media, which may not always match our Catholic Social Teachings. The biases of humans can therefore be reflected in the content these tools produce. The tool mirrors the prejudices, inaccuracies, and controversial aspects found in its source material. When the people creating content lack diversity, their biases are likely to be included in the tool (Lamensch, 2023).

Guidelines for Use

Educator Use

Educator use of GenAI tools is not required, however, for those who choose to utilize it, it should be leveraged as a dynamic tool to enhance and diversify teaching methodologies. When educators intentionally consider leveraging GenAI in their learning design, it underscores GenAI's role in supporting educators to deliver personalized, engaging, and inclusive learning experiences.

If you intend to use GenAI in your professional practice, please review the following:

1. GenAI should not replace teacher assessment and evaluation of student work. Please see the [Assessment and Evaluation Section](#) for further details.
2. GenAI may be used to support and enhance learning, creativity, and research across curricula. The content created using GenAI should not replace the teacher's professional judgment or responsibility over core instructional duties.

When selecting and using a tool:

- Educators must comply with board policies on ethical technology usage.
- Before use, review the privacy policy. If you have further questions, contact the BHNCD SB Privacy Officer.
- Be vigilant of what you share and input within the tool. Limit the amount of data you share, keep it general, and exclude identifiable information (e.g., names, addresses, birthdays, class lists, marks, demographics, information, and data that is not accessible to the public).
- Understand the limitations and risks which include fact-checking, bias, hallucinations, copyright, and data collection timelines.
- Before using a GenAI tool, take time to review best use practices (see Appendix for suggestions)

- The EVERY framework provides an acronym to remind users of the steps needed to ensure ethical use of AI by staff and students alike, EVERY time AI is used.



Classroom Use

“The advance notice is crucial; students are more likely to adhere to rules when they are aware of them beforehand and understand the reasoning behind them” (Mormando, 2023).

Educators need to be clear and transparent about what is permitted with GenAI use in their classroom. This will look different across grades and subject matter.

1. Take time at the beginning of each term (K-8) and course (9-12) to co-create an AI statement of acceptable use of GenAI tools. What are the students' expectations of how these tools can be used by both teachers and themselves? Set this up beforehand. This should also be made clear to parents and guardians.
2. Teach how to properly cite GenAI use.

Formal Citations:

If a formal citation is expected, these resources can help students cite their work properly

- [MLA Style - Generative AI](#)
- [APA Style - ChatGPT](#)
- [Chicago Style - Generative AI](#)

Informal Citation

If formal citations are not required, but any form of GenAI was used, make sure students include a statement about how AI was used (brainstorming, outlining, feedback, editing, etc.).

Examples:

- “Created by John Doe with editing assistance by Copilot.”
- “I used Copilot to help me brainstorm ideas for my project.”
- “Image created in partnership with Copilot. Prompt: “Create a photorealistic image of a unicorn with a rainbow background, jumping over a pot of gold.”

3. Implement a way to provide clarity on acceptable use before each assignment is completed. Examples include:

- The [stop light method](#) categorizes assignments into: not permitted (red), requires teacher permission (yellow), and encouraged (green). It's designed to clarify when and how GenAI can be used, ensuring that technology enhances learning without compromising academic integrity (Mormando, 2023).
- The five-tiered framework for AI Assessment shown below, is aimed at fostering a shared understanding and vocabulary for classroom use to address concerns related to potential academic dishonesty or cheating involving GenAI in the K-12 educational landscape. The AI assessment scale presented here was modified by Vera Cubero from the NCDPI, building upon the foundational work of Dr. Leon Furze, Dr. Mike Perkins, Dr. Jasper Roe FHEA, and Dr. Jason McVaugh (North Carolina Department of Public Instruction p25).

Can I Use AI on this Assignment? Generative AI Acceptable Use Scale Generative AI refers to any of the thousands of Artificial Intelligence tools in which the model generates new content (text, images, audio, video, code, etc). This includes, but is not limited to, Large Language Models/ LLMs such as ChatGPT, Google Bard, etc, Image creators such as Dall-E3, Adobe Firefly, and any tools with built in generative AI capabilities such as Microsoft CoPilot, Google Duet, Canva, etc etc)			
	Level of AI Use	Full Description	Disclosure Requirements
0	NO AI Use	This assessment is completed entirely without AI assistance. AI Must not be used at any point during the assessment. This level ensured that student rely solely on their own knowledge, understanding, and skills.	No AI disclosure required May require an academic honesty pledge that AI was not used.
1	AI-Assisted Idea Generation and Structuring	No AI content is allowed in the final submission. AI can be used in the assessment for brainstorming, creating structures, and generating ideas for improving work.	AI disclosure statement must be included disclosing how AI was used. Link(s) to AI chat(s) must be submitted with final submission.
2	AI-Assisted Editing	No new content can be created using AI. AI can be used to make improvements to the clarity or quality of student created work to improve the final output.	AI disclosure statement must be included disclosing how AI was used. Link(s) to AI chat(s) must be submitted with final submission.
3	AI for Specified Task Completion	AI is used to complete certain elements of the task, as specified by the teacher. This level requires critical engagement with AI generated content and evaluating its output. You are responsible for providing human oversight and evaluation of all AI generated content.	All AI created content must be cited using proper MLA citation. Link(s) to AI chat(s) must be submitted with final submission.
4	Full AI Use with Human Oversight	You may use AI throughout your assessment to support your own work in any way you deem necessary. AI should be a 'co-pilot' to enhance human creativity. You are responsible for providing human oversight and evaluation of all AI generated content.	You must cite the use of AI using proper MLA or APA citation. Link(s) to AI chat(s) must be submitted with final submission.

Adapted by Vera Cubero for the North Carolina Department of Public Instruction (NCDPI) from the work of Dr. Leon Furze, Dr. Mike Perkins, Dr. Jasper Roe FHEA, & Dr. Jason McVaugh
Link to Original Work

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Educators are encouraged to communicate these guidelines clearly, discuss AI's role in learning, and maintain a focus on ethical usage. This structured approach aids in navigating the integration of AI into education, balancing innovation with responsibility.

NOTE: Exceptions can be made for students with an IEP, or identified as MLLs, if classroom assessments have been classified as 'No AI Use'

AI Literacy: Classroom Implementation of GenAI

“AI literacy refers to the knowledge, skills, and attitudes associated with how artificial intelligence works, including its principles, concepts, and applications, as well as how to use artificial intelligence, such as its limitations, implications, and ethical considerations (TeachAI).”

AI Literacy is Digital Literacy. It equips people to make knowledgeable decisions, enhancing our collective well-being by preparing everyone to actively participate in discussions on the ethical and responsible creation and application of artificial intelligence.

Current Ontario curriculum expectations provide a foundation for AI Literacy. These expectations foster computational thinking, technological proficiency, and essential [Transferable Skills](#) (Critical Thinking and Problem solving, Innovation, Creativity and Entrepreneurship, Self-Directed Learning, Collaboration, Communication, Global Citizenship and Sustainability, and Digital Literacy). It will continue to demand a strong focus on media literacy, critical thinking, and ethical considerations. Students must learn to effectively collaborate with AI tools, critically evaluate media, and make ethical choices concerning AI tool usage and content distribution. Incorporating AI literacy across the curriculum will prepare students to thrive in the future. Students can increase skills to boost AI Literacy and learn *about* AI even if they can’t yet learn *with* AI. Please see the Appendix for suggestions on ways AI Literacy can be enhanced in each grade level.

Assessment and Evaluation

“The primary purpose of assessment and evaluation is to improve student learning” (*Growing Success*, 6). GenAI can free up teachers to focus on the human aspects of assessment and evaluation and give the kind of feedback that only a human can give (Spencer, 147).

**While GenAI can assist an educator in assessment,
it SHOULD NOT replace teacher assessment and evaluation of student work.**

1. GenAI can be helpful for both students and teachers on formative assessments, however, it should not be used on summative assessments because LLMs are unreliable and can be a potential safety, security and privacy concerns.
2. To ensure student work is assessed fairly and equitably, a human must always be in the loop. Educators should always closely review feedback and outputs by GenAI before communicating it with students.
3. If GenAI was used for assessment, this needs to be communicated to students before and after the assessment. This should be clearly indicated and transparent. For example, “The comments given as feedback were created with the use of GenAI”.

Things to consider when using AI with assessment and evaluation:

- **Enhancing Depth and Diversity**
 - Will GenAI contribute to the enrichment of assessment tasks, accommodating diverse students and abilities?
 - How can GenAI be employed to create a spectrum of assessment methods that go beyond traditional approaches?

- **Cultural and Linguistic Considerations**

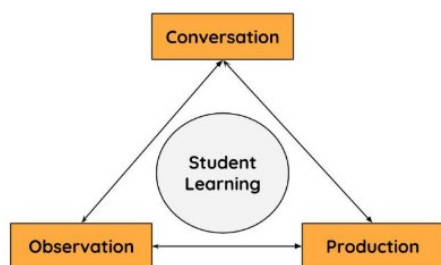
- Can GenAI be leveraged to ensure assessments are culturally sensitive and inclusive of diverse linguistic backgrounds?
- In what ways can GenAI be used to bridge language gaps and support students with varying levels of proficiency?

- **Ethical and Bias Concerns**

- What measures can be taken to ensure that GenAI assessments are free from bias and do not inadvertently disadvantage certain groups of students?
- How can teachers mitigate ethical concerns related to the use of AI in assessment, such as privacy and data security?

(University of British Columbia, 2023)

Triangulation of Data



With GenAI's rise, especially in student use of GenAI tools on school assessments, educators must prioritize the triangulation of data and value the learning process over the final product. Encouraging students to document their task progression and self-reflect can enhance understanding and skill development. Tools like the BHNCDsb-supported Brightspace Portfolio can aid in assessment and fostering communication. Video and audio can further facilitate observation and conversation for data triangulation (Edutopia, 2023).

Triangulation allows teachers to compare different types of assessments (like projects, in-class participation, and exams) to ensure that the work reflects the student's true ability and understanding. This is particularly important in maintaining academic integrity in a technology-rich environment.

Board-Approved Tools Available to Facilitate Triangulation of Data:

- **SMART Ideas:** students can use this platform for mind mapping to plan and visualize their ideas
- **Brightspace Portfolio Tool:** options for audio, video, planning, reflection
- **Brightspace Video Notes:** students can use video, audio, or screen casting in quizzes, discussions, or assignments to facilitate observation and conversation
- **Video editing software:** (e.g. Wevideo, iMovie, Moviemaker)

Rethinking Academic Dishonesty

“In the not-too-distant future, it will be a common assumption that all writing from academic papers to news reports and emails may be written with AI. In light of this, it is perhaps shortsighted to automatically consider all use of AI as ‘cheating’. Educators will need to rethink their ideas of what constitutes plagiarism and cheating in today’s world, and adapt their teaching, assignments, and expectations to this new reality” (North Carolina Department of Public Instruction).

At the discretion of the teacher, students may leverage GenAI as a powerful tool for enhancing their learning and research skills without committing plagiarism. By using it to generate ideas, outlines, or rough drafts, students can gain fresh perspectives and inspiration for their assignments. It is essential, however, to use these AI-generated materials as a starting point rather than a final submission. Students should critically engage with and significantly modify the AI outputs, integrating their own analysis, insights, and understanding.

When we consider using GenAI, copyright and plagiarism are of paramount concern. When individuals use GenAI and claim it as their intellectual property, this disrupts academic integrity. While the output may look unique, it is a compilation of other users' work and publicly available information from the internet without credit or citation to the original work (Elgersma, 2023).

Disclosing AI Use

Generating content using GenAI and claiming it as one's own is academic dishonesty. [STU 200.42.P - Assessment, Evaluation, Grading, Reporting](#) outlines guidance on the prevention and actions educators may consider when students engage in academic dishonesty.

The mere use of GenAI tools in academic endeavours does not necessarily mean students will face disciplinary action but if used by students it must be disclosed. The goal is to equip students with the knowledge and skills to be transparent and ethical in their academic pursuits, not to set traps. Teachers play a crucial role in this educational journey, guiding students to understand what constitutes academic dishonesty and how to accurately cite sources, including those derived from GenAI tools. This approach ensures that students can harness these innovative technologies responsibly, fostering a culture of integrity and honesty in their academic work (AI and the Writing Process, University of Waterloo).

Suspected Plagiarism

If a teacher suspects that a student's paper was entirely written by a GenAI tool and does not include citations indicating use, the following procedure is recommended:

- 1) Assess the paper critically, looking for signs that might indicate AI authorship, such as:
 - a lack of personal insight
 - uniform writing style
 - content that doesn't quite align with the student's known capabilities
 - the submission does not reflect the student's "voice"
- 2) Have a confidential and non-accusatory conversation with the student, inquiring about the process they used to write the paper and their understanding of the content. This conversation can provide insights into the student's involvement and understanding of the subject matter.
- 3) If further action is warranted, educators should refer to [STU 200.42.P - Assessment, Evaluation, Grading, Reporting](#) for further guidance.

Regardless of the outcome, this situation is an opportunity for educating the student about academic integrity, the ethical use of AI in education, and the importance of developing and expressing their thoughts and ideas.

NOTE: It is essential that if the educator has clearly outlined what is being assessed and if students are being assessed on their writing, then this could be considered academic dishonesty.

GenAI Detection Tools

GenAI tools create content that often bypasses the detection of plagiarism software such as Turnitin. This is because GenAI tools can generate unique, high-quality text that may not directly match existing sources, thereby eluding the algorithmic nets cast by plagiarism detectors. This leads to a significant blind spot, as these tools are primarily designed to identify verbatim or closely paraphrased text and not the nuanced, original-like content produced by GenAI (Elkhatat, Elsaid, Almeer, 2023).

Considering this, relying solely on plagiarism detection tools to uphold academic honesty is no longer sufficient. Instead, educators should consider incorporating triangulation of data. Triangulation of Data not only helps in identifying inconsistencies that might indicate the use of GenAI but also encourages a deeper engagement with the student's learning process. By adopting this multifaceted approach, educators can more effectively navigate the challenges posed by GenAI in academic settings, ensuring a more accurate and fair assessment of student work.

Appendix

GenAI Resources

Resources for Staff

Instructional Resources

- Co-creating a class GenAI use agreement - [See sample here](#)
- [A Stoplight Model for Guiding Student AI Usage](#): Giving students guidelines for AI use on assignments—via a green, yellow, or red light—provides clarity around this powerful technology.
- [Stoplight Poster for GenAI Classroom Use](#)
- [EVERY Framework Poster](#) for responsible GenAI use

Academic Integrity

- [Rethinking Academic Integrity in the Age of Generative Artificial Intelligence](#): Created by Conestoga College, this Hub aims to offer key ideas that may come in handy as you begin to strike a balance that upholds the principles of academic integrity while embracing the benefits of genAI in education.
- [Understanding Generative AI Tools](#): See this resource for sample course AI statements and student AI acknowledgement and citation guides
- [Combating Academic Dishonesty](#) (University of Chicago)
- [Promoting Academic Integrity in Your Course](#) (Cornell University)
- [Strategies for Teaching Well When Students Have Access to Artificial Intelligence \(AI\) Generation Tools](#) (George Mason University)
- GenAI Citation Guides
 - [How to Cite ChatGPT - APA Style](#)
 - [How do I cite generative AI in MLA style? - MLA Style Center](#)
 - [How do you recommend citing content developed or generated by artificial intelligence, such as ChatGPT? - Chicago Manual of Style](#)
 - University of Waterloo: [AI and the Writing Process – Documenting and Citing](#)
 - Wilfred Laurier University: [Citing Use of AI \(Artificial Intelligence\) or Chatbots](#)

Copilot Resources

- [Meet your AI Assistant for Education Microsoft Copilot](#): Get started with Copilot and learn how use generative AI to create lesson plans, quizzes, rubrics, and other class resources, ultimately enhancing student learning and saving time.

Learn More

- [AI Tools in Teaching and Learning](#): Guidance on understanding how AI tools can impact teaching and learning. his article offers some guidance as we begin to more deeply understand and engage with AI tools in our teaching and learning practices.
- [Artificial Intelligence in Education \(ISTE\)](#): Educators can use these tools to strengthen learning experiences while addressing the ethical considerations of using AI.
- [The Artificial Intelligence \(AI\) for K-12 initiative \(AI4K12\)](#): A vast list of resources to support learning and lessons with students.
- [100 Practical Applications and Use Cases of Generative AI](#) (Government of the United Arab Emirates)
 - - <https://theresanaiforthat.com> - an up-to-date website that lists all of the AI tools
 - - <https://www.promptingguide.ai> - how to on prompting

Resources for Use with Students

Adapted from the 'North Carolina Generative AI Implementation Recommendations and Considerations for PK-13 Public Schools' <https://drive.google.com/file/d/1uVIbepQrNDJmJrj9sbFKY9k9o3wJa2Zi/view>

Students can increase their skills to boost AI Literacy and learn ABOUT AI even if they cannot yet learn WITH AI. Below are some suggestions for ways AI Literacy can be enhanced in each grade level:

Primary/Junior Grades (K-5):

Learn About AI

- Increased focus on media literacy, including recognition that images and video may be manipulated by AI, to become more critical consumers of all kinds of media
- Allow students to provide input into colors, shapes, events, etc in teacher/AI generated stories & images using educational tools such as Adobe Express
- Basic coding to build computational thinking using code.org activities and using robots such as BeeBots, Spheros, Microbits, etc
- Online and offline problem-solving activities to build computational skills
- AI awareness discussions- simple conversations about how AI is part of their daily lives, such as voice assistants, GPS etc.
- Creating of creative content utilizing education-specific creativity tools such as the Generative AI Image tools in Adobe Express
- [Machine Learning Projects in Scratch](#): These projects are downloadable step-by-step guides, with explanations and colour screenshots for students to follow. Each project is a stand-alone activity, written to last for a single lesson, and will guide children to create a game or interactive project that demonstrates a real-world use of artificial intelligence and machine learning.
- [Role Models in AI](#): Database focused on individuals working in artificial intelligence (AI), providing diverse perspectives and inspiring stories. It can be a valuable resource for students to learn about real-world applications of AI, discover role models, and gain insights into different career paths within the field

Junior/Intermediate Grades (6-8)

Learn About AI

- Common Sense Media [AI Literacy Lessons G. 6-12](#)
- Code.org [‘How AI Works’ Video Series](#)
- View, evaluate, and create AI generated content using generative image tools in Copilot to enhance AI Literacy, creativity, collaboration and critical thinking.
- Analyze images in Google Image search by using ‘About this image’ (3 dots→ about this image; to reveal info about it)
- Recognize other methods of identifying current AI generated images by visual analysis for distortions, looking for watermarks, file name, etc (noting AI image generators are improving so won’t always be able to distinguish from human-generated)
- Middle school students may also benefit from awareness of potentially unsafe and irresponsible uses of AI in social media applications such as SnapChat MyAI and even in the video games they play
- [Machine Learning Projects in Scratch](#): These projects are downloadable step-by-step guides, with explanations and colour screenshots for students to follow. Each project is a stand-alone activity, written to last for a single lesson, and will guide children to create a game or interactive project that demonstrates a real-world use of artificial intelligence and machine learning.

- [Role Models in AI](#): Database focused on individuals working in artificial intelligence (AI), providing diverse perspectives and inspiring stories. It can be a valuable resource for students to learn about real-world applications of AI, discover role models, and gain insights into different career paths within the field

Learn About and With AI

- [AI for Education Lessons](#) 1-4 for Gr. 7-9 (13+ Requires use of AI; great for staff too!)
- Teacher-guided prompting to help them learn how to use GenAI tools responsibly as a learning partner to expand their own creativity and critical thinking abilities.
- Grade 6-12 students may begin utilizing [Microsoft Copilot](#) with proper training

Secondary Grades (9-12) and Adult Education

Learn About AI- No AI Required!

- Common Sense Media [AI Literacy Lessons G. 6-12](#)
- Code.org [‘How AI Works’ Video Series](#)
- Analyze AI Images to see if they can pick out the AI images (this-person-does-not-exist.com/en, <https://www.whichisai.com/>, <https://realoraigame.com/game.html>)
- Analyze images from viral social media posts etc. using Google Image search using ‘About this image.’ In corner of image, click the 3 dots→ about this image to see metadata, history, etc.
- Test & evaluate the accuracy of an AI image detection tool such as aiornot.com
- View, evaluate, and create AI generated content in [Microsoft Copilot](#) and Adobe Express to enhance AI Literacy, creativity, collaboration and critical thinking
- Gain awareness of the potentially unsafe and irresponsible uses of AI such as in social media applications such as SnapChat MyAI and even in the video games they play
- [Role Models in AI](#): Database focused on individuals working in artificial intelligence (AI), providing diverse perspectives and inspiring stories. It can be a valuable resource for students to learn about real-world applications of AI, discover role models, and gain insights into different career paths within the field

Learn About and with AI

- [AI for Education Lessons](#) 1-4 for Gr. 7-9 (13+ Requires use of AI; great for staff too!)
- Teacher-guided prompting to help them learn how to use GenAI tools responsibly as a learning partner to expand their own creativity and critical thinking abilities.
- Grade 6-12 students may begin utilizing [Microsoft Copilot](#) with proper training
- Teacher-guided prompting to help them learn how to use GenAI tools responsibly as a learning partner to expand their own creativity and critical thinking abilities.
- Maintain a prompt library to evaluate the prompt used.
- Participating in ‘Prompt-athon’ competitions

Glossary

Academic Integrity: A commitment to and demonstration of honest and moral behavior in an academic setting. This principle involves acknowledging others' contributions and avoiding plagiarism, and it extends to maintaining high academic standards in teaching, curriculum, and fostering sound research processes.

AI Literacy: AI literacy refers to the knowledge, skills, and attitudes associated with how artificial intelligence works, including its principles, concepts, and applications, as well as how to use artificial intelligence, such as its limitations, implications, and ethical considerations.

Artificial Intelligence (AI): AI refers to the capability of computers or algorithms to mimic intelligent human behavior, such as reasoning, learning, and problem-solving. It encompasses a broad field within computer science, focused on developing intelligent machines that can perform tasks that typically require human intelligence.

Bias in AI: This involves the tendency of AI systems to produce prejudiced outcomes due to the data they are trained on or the way they are programmed. Bias in AI can lead to unfair or unethical results, reflecting existing human prejudices in their outputs.

Catholic Social Teachings: A set of doctrines developed by the Catholic Church, emphasizing social justice, the dignity of human life, and the need for societal structures that support the common good. These teachings advocate for addressing poverty, inequality, and upholding human rights.

Copyright: A legal right granted to the creator of original works, including the exclusive right to reproduce, distribute, and display their work. Copyright laws aim to protect creators' intellectual property and encourage the creation of new works.

Data Privacy: Refers to the handling of sensitive information, especially personal data, in a way that respects individual privacy and confidentiality. It involves protecting data from unauthorized access, collection, use, or disclosure and ensuring ethical use of personal information.

Deep Learning: “is quality learning that sticks for life. It engages and motivates learners to develop the competencies they will need to navigate life now and in the future through real-life experiences that have meaning and purpose and foster higher-level cognitive processes (Fullan, Quinn, 2023).”

Digital Citizenship: The responsible use of technology by citizens, involves the understanding of how to use technology ethically, legally, and safely. It includes awareness of one's digital footprint and the impact of digital actions on oneself and others.

Digital Literacy: The ability to use digital technology, communication tools, or networks to access, manage, integrate, evaluate, and create information. It involves the skill to use information ethically and effectively.

Ethical Use: In the context of technology and GenAI, ethical use refers to using these tools in a morally sound way, respects individual rights, and does not cause harm. This includes considering the impact of technology on privacy, security, and societal norms.

Generative Artificial Intelligence (GenAI): A type of AI that can generate updated content or data based on the inputs it receives. GenAI often involves the use of machine learning models to create outputs that are novel and not explicitly programmed.

Generative Pre-trained Transformer (GPT): A type of artificial intelligence model primarily used for natural language processing tasks. GPT models are widely used in various applications, such as chatbots, content generation, language translation, and more. They are known for their ability to generate text that is often indistinguishable from text written by humans.

Hallucination (in AI context): Refers to instances where AI systems generate false or misleading information. This can occur due to limitations in the AI's understanding or the data it has been trained on.

Intellectual Property: Legal rights that arise from intellectual activity in the industrial, scientific, literary, and artistic fields. These rights allow creators to protect and benefit from their creations.

Large Language Models (LLMs): These are advanced AI models trained on vast datasets to process and generate human-like outputs. LLMs can understand and respond to queries, create content, and even engage in conversation.

Misinformation: The spread of false or inaccurate information, often without malicious intent. Misinformation can be due to errors, misunderstandings, or lack of information.

Pedagogy: The art or practice of teaching. It involves instructional techniques and strategies to support learning and educational outcomes.

Plagiarism: The act of using someone else's work, ideas, or expressions without proper acknowledgment or permission, presenting them as one's own. Plagiarism is considered unethical and can violate copyright laws.

Predictive AI: AI systems that analyze data to predict future events or outcomes. These systems use historical data and statistical algorithms to forecast what might happen under different scenarios.

Reactive AI: A type of AI that responds to inputs and stimuli without retaining or learning from past interactions. It is limited to immediate responses and does not have memory or learning capabilities.

Transferable Skills: Transferable skills are the skills and attributes that students need in order to thrive in the modern world. They include critical thinking and problem solving, innovation, creativity, and entrepreneurship, self-directed learning, collaboration, communication, global citizenship and sustainability, digital literacy ([Ministry of Education](#)).

Triangulation of Data: The use of multiple methods, sources, or data points to assess and evaluate students' conversations, observations, and products. This approach increases the reliability and validity of the results or findings.

Works Cited

- CyberArk Centre of Excellence improving security with gen AI. (2023, September 07). Cyber Magazine. <https://cybermagazine.com/articles/cyberark-ai-centre-of-excellence>
- Dufferin-Peel Catholic District School Board. "DPCDSB Artificial Intelligence (AI) Guidelines." November 17, 2023.
- Hendricks, Christina. "Assignment and Assessment Design Using Generative AI." Centre for Teaching, Learning and Technology, University of British Columbia, 2021, <https://ai.ctlt.ubc.ca/assignment-and-assessment-design-using-generative-ai/>.
- ECNO. (2023). Privacy/Security Assessment Application: ChatGPT (Free & Paid). ECNO OASBO.
- Edutopia. "How to Help Students Focus on What They're Learning, Not Grades." Edutopia, George Lucas Educational Foundation, 2 Nov. 2021, <https://www.edutopia.org/article/how-help-students-focus-what-theyre-learning-not-grade/>.
- Elgersma, C. (2023, October 19). *ChatGPT and Beyond: How to Handle AI in Schools*. Retrieved from Common Sense Education: <https://www.commonsense.org/education/articles/chatgpt-and-beyond-how-to-handle-ai-in-schools>
- Elkhatat, A. M., Elsaid, K., & Almeer, S. (2023). Evaluating the efficacy of AI content detection tools in differentiating between human and AI-generated text. *International Journal for Educational Integrity*. <https://doi.org/10.1007/s40979-023-00140-5>
- F. Candelon, A. Gupta, L. Krayner and L. Zhukov, "The CEO's Guide to the GenAI Revolution," 7 March 2023.
- Fullan, M., & Quinn, J. (2023). *The Drivers*. Corwin.
- Fung, B. (2023, August 9). Pope Francis warns about AI's dangers. Retrieved from CNN: <https://www.cnn.com/2023/08/09/tech/pope-francis-ai/index.html>
- Government of Canada. (n.d.). Guide on the use of GenAI. <https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai/guide-use-generative-ai.html>
- Identity & Mission: Online Witness." Mennonite Guardian, vol. 5, 2020, pp. 1-12. ICE Ontario, www.iceont.ca/wp-content/uploads/2020/11/MG_IdentityMission_Issue_5_Online-Witness_Final.pdf
- Kanungo, A. (2023, July 17). *The real environmental impact of AI* | Earth.Org. Earth.Org. <https://earth.org/the-green-dilemma-can-ai-fulfil-its-potential-without-harming-the-environment/>
- Lamensch, M. (2023, June 14). *GenAI Tools Are Perpetuating Harmful Gender Stereotypes*. Retrieved from Center for International Governance Innovation: <https://www.cigionline.org/articles/generative-ai-tools-are-perpetuating-harmful-gender-stereotypes/>

McKinsey & Company. "[Generative AI: How Will It Affect Future Jobs and Workflows?](#)" McKinsey Global Institute, 2024, 1.

Mormando, Samuel (November 9, 2023). "Creating AI Usage Guidelines for Students" Edutopia: <https://www.edutopia.org/article/creating-ai-usage-guidelines-students/>

Myers, A. (2023, May 15). AI-Detectors Biased Against Non-Native English Writers. Stanford University Institute for Human-Centered Artificial Intelligence. Retrieved July 18, 2023, from <https://hai.stanford.edu/news/ai-detectors-biased-against-non-native-english-writers>

North Carolina Department of Public Instruction (NCDPI). "North Carolina Generative AI Implementation Recommendations and Considerations for PK-13 Public Schools." 16 January 2024, <https://www.dpi.nc.gov/news/press-releases/2024/01/16/ncdpi-releases-guidance-use-artificial-intelligence-schools>

Ontario. "Digital Literacy." Transferable Skills, Ontario Ministry of Education, 2024, <https://www.dcp.edu.gov.on.ca/en/transferable-skills/digital-literacy>

Ontario, S. M. H. (n.d.). *Healthy relationship skills. Everyday Mental Health Classroom Resource - A Daily Mental Health Resource*. <https://smho-smso.ca/emhc/healthy-relationship-skills/>

Ontario Catholic School Graduate Expectations <https://iceont.ca/wp-content/uploads/2019/10/ICE-OCSGE-Web.pdf>

Spencer, John. *The A.I. Roadmap: Human Learning in the Age of Smart Machines*. Blend Education, 2023.

Taskforce on Generative Artificial Intelligence in Teaching and Learning, McMaster University. (2023, September 6). *Task Force on Generative Artificial Intelligence in Teaching and Learning: Final Report*. Retrieved from Office of the Provost, McMaster University: https://provost.mcmaster.ca/app/uploads/2023/09/Final-Report_Gen-AI-Task-Force.pdf

TeachAI. "AI Education Toolkit." *TeachAI*, TeachAI Organization, 24 March 2024, <https://www.teachai.org/toolkit>.

UNESCO. (2023). Guidance for GenAI in education and research (No. 6945). In F. Miao & W. Holmes (Eds.). ISBN 978-92-3-100612-8. <https://unesdoc.unesco.org/ark:/48223/pf0000386693.locale=en>

University of Waterloo. *AI and the writing process – documenting and citing. Writing and Communication Centre*. (2023, October 6). <https://uwaterloo.ca/writing-and-communication-centre/Resources-AI-Citing>
U.S. Department of Education, Office of Educational Technology, [Artificial Intelligence and Future of Teaching and Learning: Insights and Recommendations](#), Washington, DC, 2023.

Yoder, Maureen. (2023, February 15). ChatGPT: Ban it? No! Embrace it? Yes! [Blog post]. ISTE. <https://iste.org/blog/chatgpt-ban-it-no-embrace-it-yes1>.

