

ChatGPT and Academic Integrity

Generative Artificial Intelligence (GenAI) tools like ChatGPT have sparked discussion and debate in the field of education. Information about GenAI tools and strategies to support student learning and enhance academic integrity are outlined below.

What is ChatGPT?

ChatGPT (Chat Generative Pre-Trained Transformer) is a GenAl tool that uses natural language processing techniques in response to user-generated prompts (Trust, 2023). OpenAl released ChatGPT free to the public in November 2022.

GenAl tools' functionality comes from the Large Language Models (LLM) they are based on. ChatGPT currently uses an LLM called GPT-3.5. The more recent GPT-4 LLM forms the foundation of other GenAl tools currently available.

ChatGPT produces a wide variety of written outputs such as essays, reports, literature reviews, poems, song lyrics, scripts, marketing slogans, etc. The recent proliferation of GenAl technology has resulted in thousands of Al tools that function in a similar manner to ChatGPT. These tools are able to generate output in formats such as text, image, audio and video content.

Text-generating AI tools like ChatGPT interact in a conversational way with the user and provide detailed written responses to user prompts. These responses are indistinguishable from human writing and are generated within a matter of seconds.

Definitions and examples of other GenAl tools can be found in the Articles and Resources section below.

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What are the cautions?

There are several cautions around the use of ChatGPT and similar GenAl technologies:

Privacy Risks

- ChatGPT and similar AI tools collect significant amounts of user data and pose a privacy risk.
- Privacy risks could lead to liability.
- Based on privacy concerns, ChatGPT is under investigation by Canada's Privacy Commissioner as <u>announced</u> on April 4.



Legal Risks

- Copyright infringement occurs when a person reproduces or "publishes" a copyrighted work without the permission of the copyright owner. Arguably, if someone uses ChatGPT to generate content that is so similar to existing works, they may infringe on existing copyrights.
- Trademark infringement.
- Other Intellectual property concerns.

Ethical Considerations

- Does not support student accessibility needs.
- Difficult to block or prevent use of GenAl tools.
- An <u>open letter</u> (Mar. 30th, 2023) calling on AI labs to pause development of AI tools more powerful than GPT-4 (for 6 months) due to ethical, moral, and humanitarian concerns.

Academic Integrity

- Students may use GenAl to outsource the required learning for their course.
- Plagiarism and original content concerns.
- Incorrect or missing referencing results from its use.
- Plagiarism and AI detection tools are unreliable, inconsistent and may produce false results.

Quality of Al-generated Content

- Plausible-sounding content that may be inaccurate or false.
- Harmful content, instructions or advice.
- Content that perpetuates inaccurate or harmful biases around race, gender, ability, and more.
- Provides inaccurate or false citations.
- ChatGPT LLM GPT-3.5 (currently free) is based on information prior to 2021 (LLM GPT-4 which is used in Microsoft Bing, and Google's LLM LaMDA, used in Google Bard, provide more recent information).

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Is it cheating if students use ChatGPT?

No. The use of ChatGPT and GenAl tools does not automatically equate to cheating.

Consider the appropriate and inappropriate uses of GenAl tools in your course and program. These uses may vary, depending on the course learning outcomes and the assessment methods required.

Begin the conversation about ChatGPT and other GenAl tools with your students:

- Outline the Academic Integrity expectations for your course.
- Describe acceptable and unacceptable uses of GenAl tools.
- Be open to discussing student concerns with assignments and assessment timelines.
- Explain how AI-generated content compromises student learning and may result in an Academic Integrity Breach.
- Contact the RRC Polytech Academic Integrity Specialist for support with questions <u>AcademicIntegrity@rrc.ca</u>

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What happens if I suspect an Academic Integrity Breach?

RRC Polytech students are responsible for submitting work that shows their own knowledge, skills and abilities.

Instructors are responsible for communicating the academic integrity expectations for their course and program, including related RRC Polytech policies. Instructors are also responsible for communicating the acceptable and unacceptable uses of GenAI tools to their students.

If misuse of prohibited AI tools is suspected, this concern may be addressed by having an Exploratory Meeting with the student to learn more.

If there is a concern that the required learning has been compromised by outsourcing, either to another person or technology such as GenAl tools, review Academic Integrity <u>Policy</u> and <u>Procedures</u>.

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What about Al-writing detection tools?

The use of detection tools that claim to differentiate human writing from Al-generated writing is problematic for several reasons:

False Positives

GenAl writing is very similar to human writing; therefore, Al writing detection tools may inaccurately produce false positives, wrongfully implicating the student (Gegg-Harrison, 2023).

Over-monitoring

Targeting academically vulnerable student populations is a concern with the use, and overuse, of all plagiarism detection tools (Gegg-Harrison, 2023).

Privacy, copyright, and intellectual property rights

Student privacy may be infringed when student work is uploaded to third-party detection software (Mills, 2023).

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How can instructors respond?

Instructors may begin to shift their instructional practices to ensure the validity and authenticity of student work and enhance learning opportunities. Review the Academic Integrity and Artificial Intelligence Checklist for Instructors below.

Academic Integrity and Artificial Intelligence Checklist for Instructors

Start Now! Talk to your students

- Have open and honest conversations about GenAI tools when you distribute the course outline.
- Inform students of the assignment expectations related to each assessment throughout the course.
- Review RRC Polytech's <u>Academic Integrity Policy</u> with your students.
- Set guidelines for acceptable and unacceptable use of GenAl tools in the context of your course and/or professional discipline.
- Update your course outline to include clear expectations for the use of technology and GenAl tools.
- Explain why writing skills are important to the learning process.
- Get to know your students and their writing skills through authentic in-class writing tasks and conversations.



Share what you know right now:

- Discuss ChatGPT and other GenAl tools in relation to your course and professional practice.
- Highlight legal and privacy risks, ethical considerations, potential academic integrity issues and concerns with the quality of AI-generated content.

Model and Teach Academic Integrity

- Teach academic integrity skills and connect them to the course learning outcomes.
- Communicate assignment criteria, assessment methods and provide rubrics.
- Provide examples of successful assignment submissions.
- Connect the importance of academic integrity to students' professional context and industry.
- Use an Academic Integrity Statement in your LEARN course and for assessments.
- Introduce an academic integrity checklist to your students to support good choices.
- Connect students to RRC Polytech Library and Academic Services supports.

Make changes to your course assessments

- Review your course outline and begin planning for both short-term and long-term changes to assignments and assessments.
- Authentic and alternative assessments provide opportunities for increased student engagement and reliability.
- Modify assessments that GenAl tools (ChatGPT) can easily provide answers to.
- Incorporate Active Learning strategies to engage learners (role-play, discussions, problem-solving, debates, case studies, etc.).
- Integrate Student-Centered Learning: get to know your students, build relationships, include prior learning, opinion and reflection, guest speakers and collaboration.
- Incorporate Universal Design for Learning (UDL), allowing for multiple means of expression: student choice, local resources, classroom discussions, oral presentations, reflection and curated reading lists.
- Ensure course learning outcomes match assessment methods.
- Explore Constructive Alignment a student-centered approach that focuses on what the student learns rather than what the instructor will teach.

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Where can I get more support?

Generative AI tools are here to stay and will keep advancing. To support academic integrity and your students' learning, have open, honest conversations with students about the use of these tools in their discipline and consider the adjustments to courses that can be made now and for future terms.

For questions about potential Academic Integrity concerns in relation to use of ChatGPT (or other GenAl tools) please contact the **Academic Integrity Specialist** <u>AcademicIntegrity@rrc.ca</u>.

For more information on updating your course, request a Teaching and Learning Consultation.

For more information on **copyright**, contact: RRC Polytech Copyright Officer.

Articles and Resources

Definitions:

Generative AI

GPT-4

Large Language Models (LLM)

Examples of other GenAl tools:

- DALL·E 2 creates realistic images and artwork
- <u>Tome</u> text-to-slide deck generation
- Elicit AI research assistant
- <u>Runway</u> text-to-image video generation
- ChatGPT Plus (uses OpenAl's LLM <u>GPT-4</u>) released March 13th, 2023 and requires a paid subscription

Directory of Al tools

Futurepedia - The Largest AI Tools Directory | Home

Academic Integrity:

ChatGPT and Artificial Intelligence in higher education: Quick start guide from UNESCO



<u>Supporting Academic Integrity: Ethical Uses of Artificial Intelligence in Higher Education</u> Information Sheet from the Academic Integrity Council of Ontario (AICO)

ENAI Recommendations on the ethical use of Artificial Intelligence in Education in the International Journal for Academic Integrity

<u>The Use of AI-Detection Tools in the Assessment of Student Work from Learning, Teaching and Leadership</u>

Sarah's Thoughts: Artificial Intelligence and Academic Integrity from Learning, Teaching and Leadership

Teaching and Learning Strategies:

How to Talk to Your Students about ChatGPT: A Lesson Plan for High School and College Students from Learning, Teaching and Leadership

<u>Conversations with Students about Generative Artificial Intelligence Tools</u> from the <u>Centre for</u> <u>Teaching Excellence at University of Waterloo</u>

Editorial: ChatGPT: Challenges, Opportunities, and Implications for Teacher Education from <u>CITE Journal</u>

<u>ChatGPT Just Got Better. What Does That Mean for Our Writing Assignments?</u> By Anna Mills in <u>The Chronicle of Higher Education</u>

How should we talk to students about AI? from Monash University

ChatGPT Fuctionality:

<u>ChatGPT is everywhere. Here's where it came from</u>. By Will Douglas Heaven in <u>MIT Technology</u> <u>Review</u>

Large Language Models explained by Dr. Jonathan Kay Kummerfeld from The University of Sydney

Pre-recorded Webinars:

<u>Strategies to Enhance Instruction, Assessment and Academic Integrity in Response to</u> <u>Emerging Technologies</u> – January 17, 2023 RRC Polytech Faculty Development session. Found in Faculty Development Archived Sessions and Recordings, under the Academic and Teaching Integrity section



<u>Academic Integrity and Artificial Intelligence: Implications for Plagiarism and Academic Writing -</u> <u>YouTube</u> – January 26, 2022 session delivered by <u>Dr. Sarah Elaine Eaton, PhD</u> in partnership with <u>Partnership on University Plagiarism Prevention</u>

<u>ChatGPT Webinar #1 - what do we need to know now?</u> – <u>TEQSA</u> in association with <u>Centre for</u> <u>Research in Assessment and Digital Learning (CRADLE) at Deakin University</u> presents the first webinar in the "Implications of Generative Artificial Intelligence for Higher Education" series (February 16, 2023)

<u>ChatGPT Webinar #2 - how should educators respond?</u> – <u>TEQSA</u> in association with <u>Centre for</u> <u>Research in Assessment and Digital Learning (CRADLE) at Deakin University</u> presents the second webinar in the "Implications of Generative Artificial Intelligence for Higher Education" series (March 1, 2023)

Teaching and Learning at the Al Intersection: Approaching Artificial Intelligence and Academic Integrity through an Educative Framework - 2023 RED Forum session, presented by Dr. Laurie McNeill, Associate Dean, Students and Professor of Teaching, University of British Columbia (June 2, 2023). Contact <u>academicintegrity@rrc.ca</u> to obtain Dr. McNeill's handout that was prepared for the audience of this session.

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This Q & A was inspired by resources from the <u>University of Toronto</u> and <u>University of British</u> <u>Columbia.</u>



References

Gegg-Harrison, W. (2023, February 27). *Against the use of GPTZero and other LLM-detection tools on student writing.* Medium.

https://writerethink.medium.com/against-the-use-of-gptzero-and-other-llm-detectiontools-on-student-writing-b876b9d1b587

Mills, A. R. (2023, March 23). *ChatGPT just got better. What does that mean for our writing assignments?* The Chronicle of Higher Education.

https://www.chronicle.com/article/chatgpt-just-got-better-what-does-that-mean-for-our-writingassignments

Trust, T. (2023). *ChatGPT and education*. College of Education. The University of Massachusetts, Amherst [Google Doc Information Sheet].

https://docs.google.com/presentation/d/1Vo9w4ftPx-rizdWyaYoBpQ3DzK1n325OqDqXsnt0X0/edit#slide=id.p