Artificial Intelligence Writing Tools

Overview: What are AI-Writing Tools?
Large language model (LLM) artificial intelligence (AI) writing tools, such as ChatGPT developed by OpenAI, use deep learning techniques to generate human-like text based on prompts and written input. In particular, ChatGPT and similar systems, are conversational and can answer questions, carry on a dialogue, and generate text in various styles. As AI-based technology advances and intersects with education, we are faced with new challenges, opportunities, and questions. As educators and learners, we are pondering the ethical implications of these tools, asking what it means to maintain the integrity of our students’ work an evolving context, and we are exploring what it would mean to re-imagine how we assign and assess learning and progress.

Considerations
AI writing tools, like ChatGPT, can be leveraged in a variety of teaching and learning contexts. As with any teaching practice or tool, it is important to consider your learning environment, the student learning outcomes you would like to assess, and ethical and equity implications of that tool or practice.

Integrating ChatGPT and other AI tools constructively into teaching and learning can be done by engagement with the tool by students and/or instructors.

For example, students can:
- generate practice questions for tests,
- critique ChatGPT output,
- edit drafts of papers with reflection,
- develop counterarguments,
- summarize technical documentation with student analysis,
- narrow research terms,

As an instructor, you can use ChatGPT to:
- create small practice exercises with solutions,
- build a data base of typical incorrect answers for multiple choice questions, FAQs, and marking keys
- teach students how to effectively use AI, such as prompt construction

The University of Central Florida’s Faculty Center offers a comprehensive list of potential ways to “lean into the software’s abilities.”

As the capabilities of and access to artificial intelligence writing tools increase, along with the potential opportunities, comes apprehension. Educators and learners have expressed concerns over the potential misuse of AI-writing tools, whether in situations of academic dishonesty or through over-reliance on tool possibly resulting in decline in student writing or knowledge development. Additionally, questions have been raised about the corpus data on which many AI-writing tools have been trained, including sources, inherent bias, and privacy considerations. As more tools become available, equitable access and fair use will continue to be questions that instructors and learners will grapple with.

Instructors are encouraged to talk with students about AI-writing tools. SFU offers some examples of syllabus statements on the use of technology that are aligned with SFU’s current policy. Beyond the syllabus, have open classroom discussions regarding AI, including how AI-tools might be used in the misrepresentation of work, the appropriate incorporation of technology and citation for a particular course.
context, and the alignment of learning to the students’ long-term goals (whether career related or other). Classroom conversations like these can help build shared value and understanding between instructors and students.

In addition to talking with students, instructors may want to:

- integrate a variety of learning and teaching strategies into their practice, such as student video submissions,
- break large assignments into smaller chunks,
- incorporate in-class writing activities, increase group tasks,
- make assignment prompts customized to the course, and
- extend the length of essays (beyond five paragraphs).

These strategies may help create benchmarks of student learning, deter academic misconduct, and challenge some of the current AI-writing software's capabilities. Some instructors may choose to employ detection software, such as Turnitin.com or preview assignment prompts within the AI-writing platforms. Other instructors may take this as an opportunity to reimagine the types of assessment they use or even the role of assessment within learning and higher education.

Want to discuss your specific teaching context with CEE staff? To request a consultation, please contact CEE at cehelp@sfu.ca

SFU in the Conversation

- Nicky Didicher, Department of English
  - AI, ChatGPT, and the Coming Revolution
- Terri L. Griffith, Beedie School of Business
  - Why Using AI Tools Like ChatGPT in my MBA Course is Expected and Not Cheating
  - Is Using AI Cheating?
- Leanne Ramer, Department of Biomedical Physiology and Kinesiology
  - Adapt, Evolve, Elevate: ChatGPT is Calling for Interdisciplinary Action
- Yuxin Shao, Caixuan Wang, Daisy Xu, and Xinrui Zhang, School of Computing Science, SFU
  - ChatGPT and the Model Behind

Did we miss a SFU educator or student who is writing about AI-Writing Tools in the context of teaching and learning? Let us know at cehelp@sfu.ca

Additional Resources

- Unpacking ChatGPT: The Pros and Cons of AI’s hottest language model by Hoyos, A. (2023).
- What to do about AI Text Generators: Next step for educators Slide deck by Anna Mills
- Crowdsourced Resources
  - AI text Generators: Sources to Stimulate Discussion among Teachers
  - Crowdsourced resource from writing experts variously positioned across Canadian institutions.

CEE would like to acknowledge the contributions of faculty and staff who attended the CEE Workshop, “Prevent, Detect, or Integrate? How AI Tools are Changing Assessments” (January 25, 2023) to the resources as well as recognize the use of ChatGPT in generating draft summaries.