

How can I teach English with algorithmic writing technologies ethically?



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Land Acknowledgement



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Topics

1. Positioning
2. Housekeeping Information
3. The GenAI: What It Is, and What is Happening
4. ChatGPT: What It Is, What It Can Do, and Its Limitations
5. ChatGPT: Recommendations for English Teachers
6. Q & A

Positioning (Presenters)



Beatriz Moya

- Ph.D. Candidate - Werklund School of Education, University of Calgary.
- Academic Integrity Hour in Canada Steward.
- Research Assistant in the Project “Artificial intelligence and academic Integrity: The ethics of teaching and learning with algorithmic writing technologies.”

Positioning (Presentation)

1. We are not here to settle this conversation:

- It might take years, even decades.
- It needs to involve all educational stakeholders.
- It will require transdisciplinary insights.
- It will be constantly impacted by rapid technological developments.



2. We are here to expand this conversation

Housekeeping Information

- **This is a safe space.**

During this activity, we will promote academic integrity values: respect, responsibility, fairness, courage, honesty, and trust.

- **Your insights, concerns, and questions are relevant.**

We will have time for a Q&A at the end of the presentation.

- **We also acknowledge this is an ongoing conversation.**

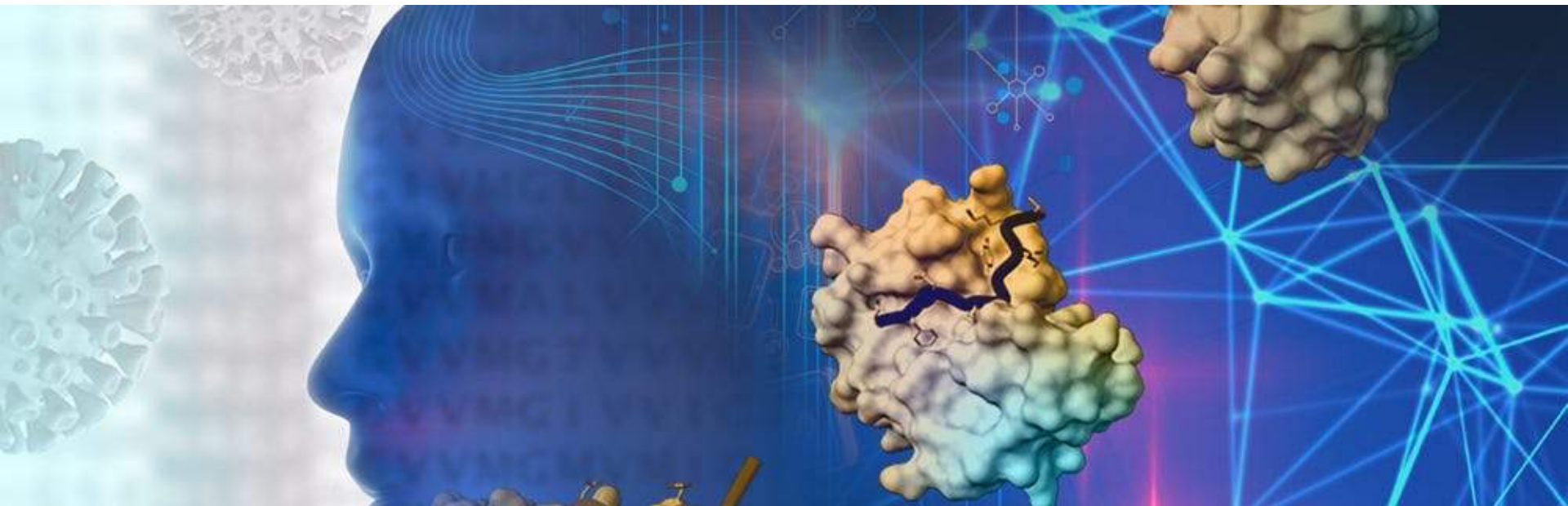
We might be unable to address some of your concerns in this workshop.

The GenAI Landscape



GenAI: *What It Is*

"Technology that (i) leverages deep learning models to (ii) generate human-like content (e.g., images, words) in response to (iii) complex and varied prompts (e.g., languages, instructions, questions)" (Lim et al., 2023, p. 2).



GenAI:

What is Happening?

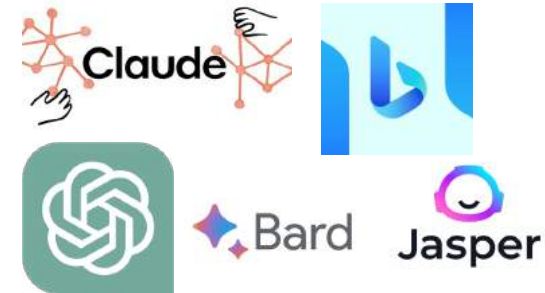
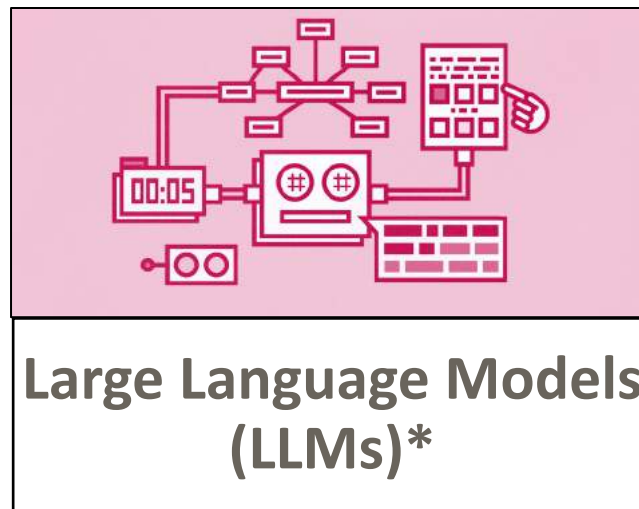
GenAI has content-generating capabilities that resemble what humans can do.

Some students might use this technology to write or create images for their assignments, while others might use them to learn.

GenAI is a concern for educators; it can also be an opportunity.

ChatGPT: What It Can Do and Its Limitations



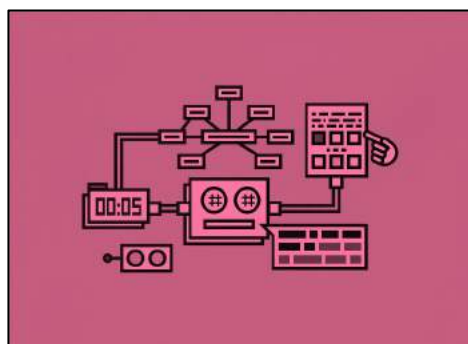


They can produce writing
upon a user's prompt.

They can generate original
combinations of words.

* Brake, (2022); Crosthwaite & Baisa, (2023); Emenike & Emenike (2023); Hiatt, (2023);
Lim et al. (2023); Mills, (2023)

What Is ChatGPT?



Large Language
Models (LLMs)

ChatGPT (Chat
Generative Pre-
Trained
Transformer)*

Free version

 OpenAI



It was released on
November 30, 2022.

It was designed to
respond to questions.

It was trained in
conversational text.

It had more than one
million users in five days.

Microsoft invested in it.

It is based on GPT-3.5 (A
Large Language Model).

* Brake (2022); Hiatt (2023); Hu (2023); Mills (2023); Nature (2023)

ChatGPT: *What It Can Do**

Coding capabilities

It produces computer code with text input.

Interaction capabilities

It receives up to 2,000-word prompts.

It remembers the input that the user has provided.

It declines inappropriate requests or challenges incorrect premises.

It admits mistakes or allows users to provide corrections.

Research capabilities:

It answers simple questions.

It produces research abstracts.

It simplifies text into more straightforward summaries (e.g., research papers).

It translates text written in foreign languages.

Writing capabilities

It provides human-like responses.

It writes faster than a human.

It writes various kinds of text in a particular style.

It improves imperfect writing.

* Brake (2022); ChatGPT (2022); Eke (2023); Hiatt (2023); Kumar et al. (2022); Mills (2023); St. Louis Post (2023); Whitford (2022)

ChatGPT: *Limitations*

Accuracy issues:	Generates information that is not always accurate, is full of contradictions or combines bits of truth with false information (e.g., hallucinations or fake news).
Authenticity issues:	Generates text that is rarely used in real writing or conversations.
Bias issues:	Provides biased content.
Information limitations:	Provides information about events that happened before 2021.
Research issues:	Cannot cite sources or provide the source of the information.
Safety issues:	Does not provide clarity about user data.
Writing issues:	Produces text that lacks depth and originality, is full of clichés and repetitions, and sometimes lacks cohesion.

* Brake (2022); ChatGPT (2022); Crosthwaite & Baisa (2023); Eaton (2023); Hiatt (2023); Kohnke et al. (2023); Kumar et al. (2022); Lancaster (2023); Lim et al. (2023); Nature (2023); Whitford (2023); Zohny et al. (2023)

The Turing Lab

You will read two texts.

You will be asked to identify if they were written by humans or ChatGPT.

You will cast your vote (Menti) and use the gesture function (thumbs up) when you are ready.

We will analyze the results...

... and find out who/what wrote each text!



Or go to
Menti.com and
use the voting
5576 2857

Chat GPT: Recommendations for English Teachers



ChatGPT:

What It Can Do to Support...

Teaching	Create teaching materials (lesson plans, infographics, videos, etc.).
	Help assessment design.
	Write e-mails and announcements.
	Work as a grammar checker or writing assistant.
Learning	Engage learners in real-time interactions.
	Offer explanations of vocabulary and concepts in context.
	Overcome writer's block (e.g., short stories and essays).
	Provide formative and corrective feedback.
	Translate text.
	Work as a grammar checker or writing assistant.

Let's Learn about Prompting

“In essence, it is the art of fine-tuning the questions or commands provided to AI models in order to optimize their performance and guarantee that they produce the desired results.” – Dr. Leo S. Lo.

- CLEAR Framework:

- Concise and clear
- Logical
- Explicit
- Adaptive
- Reflective

* Lo (2023)

Prompting Ideas*

- **Create assessment ideas**
 - You can copy and paste the expected learning outcomes/ learning objectives and ask ChatGPT to provide formative assessment ideas.
- **Create a reading quiz**
 - You can copy and paste a publicly available text and ask ChatGPT to write related questions (e.g., open-ended, multiple choice, or true and false). You could also provide information about the level of proficiency and the skills you want to focus on.
- **Create discussion questions**
 - You can paste a resource and ask ChatGPT to create any number of questions about it. You can also add the number of students involved in the speaking activity.
- **Extract keywords**
 - You can paste a text and text ChatGPT to extract the keywords and provide a list with the definitions of the chosen keywords.

* Weber (2023)

A Real-Life Example

STEP 1: You can ask ChatGPT to translate a **Learning Outcome** into English.

STEP 2: You can then prompt ChatGPT to provide some **Formative Assessment** ideas for THAT specific Learning Outcome.

STEP 3: You could follow up by choosing one idea and ask ChatGPT to write a **Lesson Plan** that aligns with THE specific **Learning Outcome** and the preferred **Formative Assessment** strategy.

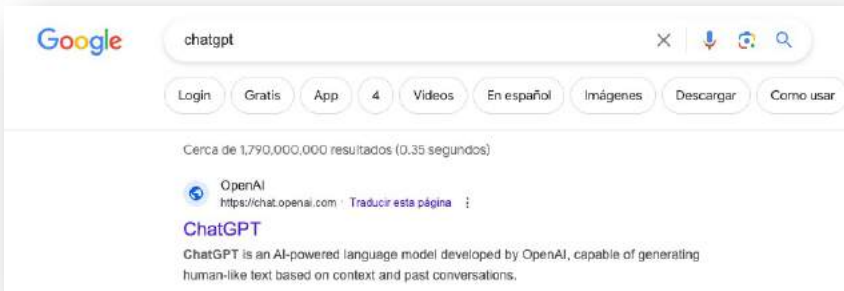
STEP 4: The **Lesson Plan** provided by ChatGPT could be your **starting point**.

Some things to consider (*NEXT STEPS*):

- Your professional knowledge
- Your epistemological position
- Institutional guidelines that impact curriculum choices
- The characteristics of your students

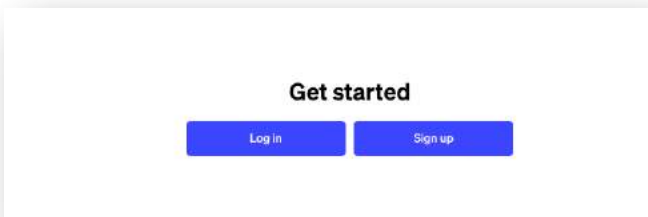
Let's open an account!

1. Go to Google and search for "ChatGPT"



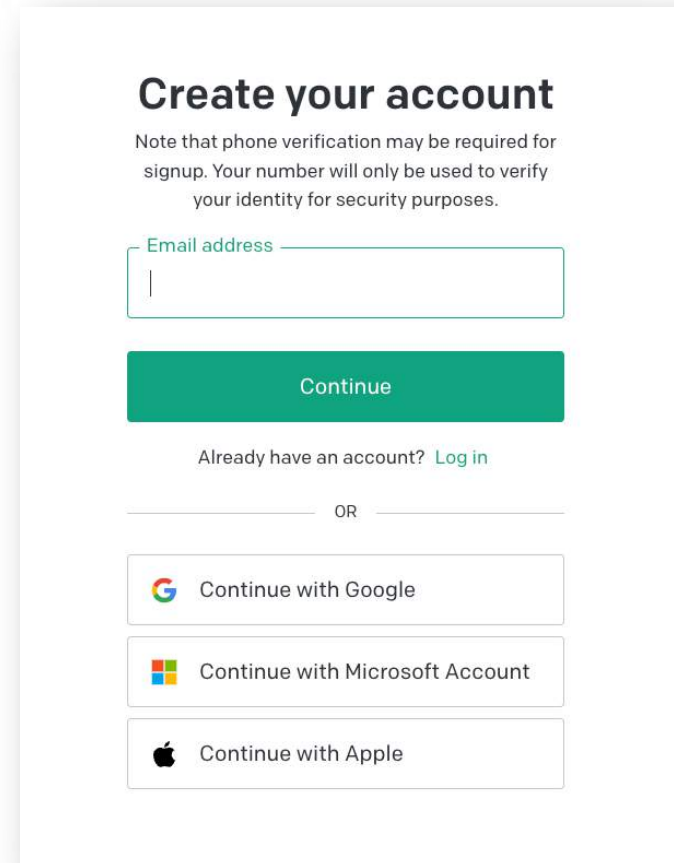
2. Click on the link.

3. You will see this screen...



4. "Log In" if you are a user or "Sign up" if you are using this for the first time.

5. If you are signing up for the first time, choose your method and follow the instructions.



Prompt Example (8-minute activity)

You will write a prompt.

What do you think about ChatGPT?

What questions did you ask?

What do you think about the outputs?

Share your thoughts in the chat

Summary

It's your turn to use ChatGPT! Keep in mind its capabilities and limitations! Use it ethically!

- Keep an eye on its potential biases (And help prevent discrimination!).
- Always make sure you give proper attribution (give credit to those who deserve it).
- Mind data safety (Don't copy and paste your personal information, student data, or resources with copyrights).
- Be transparent about its use (And hold yourself accountable, always).
- Always verify the information it provides (Potential to create Fake content/news).

Become a Research Participant!

Invitation to Participate: Research Study on Artificial Intelligence and Academic Integrity:

The Ethics of Teaching and Learning with Algorithmic Writing Technologies



Photo by cottonbro studio on [Pexels.com](https://www.pexels.com)



Dr. Sarah Elaine Eaton is a professor, ethicist, writer, and speaker. She is a strong advocate for academic integrity and ethics in educational contexts.



Survey = 15
minutes

Interview
(optional) = 1
hour

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Images

AI Illusion (Forbes)

<https://www.forbes.com/sites/forbestechcouncil/2021/06/16/the-reality-behind-the-ai-illusion/?sh=29928be3dac6>

AI Tools (Infoworld)

<https://www.infoworld.com/article/3623773/ai-gives-software-development-tools-a-boost.html>

Bard Logo

<https://logowik.com/google-bard-logo-vector-57932.html>

Bing Logo

<https://www.theverge.com/2023/3/21/23649943/microsoft-bing-openai-dall-e-image-creator-ai>

ChatGPT (Lionel Bonaventure/AFP): <https://thewest.com.au/technology/chatgpt-educators-scramble-as-ai-disrupts-schools-and-universities-across-australia-c-9565061>

ChatGPT Logo

https://commons.wikimedia.org/wiki/File:ChatGPT_logo.svg

GenAI (Medium)

https://medium.com/@fergie19702004_40140/artificial-intelligence-in-healthcare-and-medicine-10-advantages-8a2c2534f2d2

GPT-3 (Alex Castro)

<https://www.theverge.com/2021/3/29/22356180/openai-gpt-3-text-generation-words-day>

Jasper Logo

<https://logowik.com/jasper-ai-logo-vector-56804.html>

OpenAI/ ChatGPT

<https://www.engadget.com/openai-chatgpt-professional-paid-chatbot-143004442.html>