

" اخلاقيات الذكاء الاصطناعي و البحث العلمي "

إعداد

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By

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What is AI?

 AI systems are designed to stimulate human intelligence an behaviour and they can be trained to recognize patterns, make predictions, and automated tasks based on iput data

What does ChatGPT mean?

• GPT stands for "generative pre-trained transformer," which is a type of large language model: a neural network trained on a very large amount of text to produce convincing, human-like language outputs. The Chat part of the name just means "chat": ChatGPT is a chatbot that you interact with by typing in text.

AI Classification

- Artificial Narrow Intelligence
- Refers to AI systems that are designed to perform specific task or set of tasks within a narrow domain
- These systems are highly specialized and can only perform the tasks they are programmed to do.

Artificial General Intelligence:

Refers to AI systems that have the ability to understand or learn any intellectual that a human can

Artificial Super Intelligence:

• Refers to AI systems that are more intelligent than humans in every way

Frequently Asked Questions:

• Does using Artificial Intelligence violate the Honor Code?

- Can I use Artificial Intelligence bots like ChatGPT to help with my homework?
- Should I use citations when using Artificial Intelligence in my work?
- How do I cite Artifiical Intelligence in APA?
- Can I make a statement about Artificial Intelligence in my course syllabus?
- How can I as an instructor incorporate Artificial Intelligence into my lesson planning?
- Can I ban the use of Artificial Intelligence in my course?

AI EHICS DO WE HAVE ONE?

- CODE OF PRACTICE
- CODE OF COVDUCT
- CODE OF ETHICS
- HONOR CODE
- STATEMENT OF PRINCIPLES
- AI POLICY

DO YOU YOUR OWN POLICY?

All instructors should update their syllabi to include guidance on the use of generative AI in their class. We encourage faculty to thoughtfully consider their stance on AI use. In this shift in higher education and the rapidly changing AI market, standardized, one-size-fits-all, AI policies are not sustainable in the long term. They may also not account for the varying stances instructors will take regarding AI use in their classrooms. Furthermore, because generative AI is becoming more ubiquitous, you'll need to consider your personal stance on AI in your own work, as well as in your classrooms. Establishing an AI policy for your class allows you to have meaningful discussions with students on this topic. Being specific about how AI is or isn't allowed makes the rules clear for students and faculty if there are academic integrity violations as well.

Responsible and Ethical use of AI

As a student it is your responsibility to ensure that any work that you submit for assessment is your own. When studying with integrity it is still possible to slip into poor academic practice and misconduct. Allegations of misconduct such as collusion, plagiarism, buying assessed work from a third party, and unacknowledged use of AI tools are taken very seriously and managed under the academic misconduct procedure.

Ethical AI for Teaching and Learning

For both instructors and students, it is important to understand, evaluate, and overall familiarize yourself with the uses of generative artificial intelligence tools, whether you decide to incorporate their use into your course or not. Engaging with generative A.I. tools means using a thoughtful, critical and ethical lens to determine whether their use will benefit your assignments and assessments, as well as considering how your students may independently be trying to engage with these tools in their learning, either productively or in ways that may challenge their work's academic integrity.

المضامين الأخلاقية والاجتماعية للذكاء الاصطناعي

- AI is Biased
- Job Displacement
- Content creation
- Privacy concerns
- AI is a blackbox
- Need for Tranparency

In all courses, students should receive an official, written policy clearly stating permitted and prohibited uses of generative AI tools and grading policies related to the use of generative AI tools in the particular course.

Policies for student use of AI tools in educational assignments should be framed as being a component of academic honesty expectations

WHAT TO AVOID

- Blind Trust in AI Outputs: AI can sometimes generate citations that are incorrect or fabricated. Always verify the authenticity of suggested sources.
- Replacing Critical Reading: Relying solely on AI-generated summaries without engaging with the full texts can lead to superficial understanding.

What to Avoid in Academic Writing:

- Unverified AI Suggestions: Accepting AI-generated topics without checking academic sources can lead to outdated or overused research ideas.
- Overreliance on AI: Using AI-generated topics without personal input or refinement results in generic, surface-level research.
- Skipping Critical Evaluation: Treating AI-generated ideas as final choices without assessing feasibility, originality, and relevance.
- AI-Generated Thesis Statements: A thesis requires critical engagement with academic literature, not just AI-generated phrasing. Learn how to develop a strong thesis in The Basics of Thesis Writing: How to Develop a Strong Thesis Statement.
- Letting AI Perform Critical Analysis or Interpretation: AI tools should be used strictly for generating initial ideas or refining research directions—not for conducting the core critical analysis. Accepting AI-generated interpretations or analytical conclusions without your own intellectual input crosses ethical boundaries by compromising originality and personal understanding.

AI for Students Academic Integrity Checklist

• Submitting work for assessment? Use this Academic Integrity Checklist to make sure you're applying good academic practice. Guidance based on your answers can be found below the checklist.

AI QUESIONNAIRE

- Do you feel the assignment you are submitting is your own work and reflects your own learning, voice and writing style?
- Did AI technology or another person (including an essay writing service) complete your assignment for you?
- Did you follow all recommendations or restrictions on the use of AI mentioned in the assignment brief?
- Other than helping to correct basic spelling and grammar errors, did AI or another person edit any part of your assignment?
- Did AI technology or another person make changes to the flow, clarity or tone of your assignment?
- Did AI technology or another person change the meaning, expression or language used in your assignment?
- Did you find, read, critique and draw ideas from multiple information sources when creating your assignment?
- If you used AI technology to help generate and research ideas or summarise information, did you critically evaluate and fact check the outputs?
- If you have used text, images or other materials generated by AI or another person in your work, have you fully acknowledged and cited it?
- If citing AI or the work of others, have you correctly referenced it in line with your School's guidance and preferred referencing style? If all of your answers are marked this indicates your assi
- If all of your answers are marked this indicates your assignment has been completed using good academic practice. Well done! If any of your answers are marked your work may be considered poor academic practice, which in some cases can lead to academic misconduct

UNESCO and AI

AI should

- Protect human rights
- Provide peaceful life
- Secure Diversity and inclusion
- Protect the Environment
- Job security

Ethical Considerations for Using Generative AI

 Generative AI tools can assist us in our daily lives, at work, or when studying. As with any tool, ethical, evaluative, and appropriate use is key. Below are ethical considerations connected to generative AI for you to explore.

Environmental impacts

• Building, training, and using generative AI models requires the use of a significant amount of energy and contributes carbon emissions. It also consumes a lot of water for cooling. Researchers and companies are exploring ways to make generative AI more sustainable, but it is still important to consider whether your use of AI is worth the environmental impact and to use generative AI tools as efficiently as you can. For more information about generative AI and the environment, see this article from the Wall Street Journal.

Accessibility

 Generative AI tools can also function as accessibility aids. For example, Maggie Melo wrote about <u>ChatGPT as an assistive</u> <u>technology</u> for students and faculty with ADHD.

Creatorship and academic integrity

University experiences develop your knowledge and skills so when you finish a degree, you're well equipped for employment or further study. Using generative AI to create content that you have not expanded on, modified, or meaningfully engaged with means you are presenting work that is not your own and you have not developed your knowledge and skills. Getting a generative AI tool to create or rewrite your assignment, and then submitting that work as your own, is cheating. It is similar to

asking another human to do your work for you. If you use generative AI, you need to disclose which tool(s) you used and in what way. For more information, visit the information provided by the <u>Provost's Task Force</u> on AI and the Learning Environment.

 Furthermore, if you intend to publish work incorporating AIgenerated content, you should check the publisher guidelines about what is allowed.

Copyright (TRIP)

There are several copyright issues relevant to the development and use of generative AI tools. How the training data for the AI tool is gathered, whether it includes copyright-protected material, and whether permission or a licence from the rights holder has been acquired, or needs to be acquired, are all important considerations. Using substantial portions of copyright-protected works as inputs or as certain types of outputs with AI tools may also have copyright implications. While at present there seems to be no statutory basis for copyright protection of AI-generated outputs in Canada, such outputs can be infringing of other copyrights, and the liability for such infringements can be an issue for both developers and users of generative AI tools. The Government of Canada is exploring these issues through its Consultation on Copyright in the Age of Generative Artificial Intelligence and the Artificial Intelligence and Data Act. For more information about copyright, contact the University of Alberta Copyright Office.

Privacy

Like other digital tools, generative AI tools collect and store data about users. Signing up to use generative AI tools allows companies to collect data about you. These data can be used to make changes to tools to keep you engaged.

 User data may also be sold or given to third parties for marketing or surveillance purposes. When interacting with AI tools, you should be cautious about supplying sensitive information, including personal, confidential, or proprietary information or data.

Bias

Generative AI tools can create biased content, for any or all of these reasons:

- People may embed their biases when they create them.
- There can be biases in the datasets used to train them.
- Generative AI may create its own biases from how it interprets the data it has been trained on.

Accuracy

Companies often do not disclose the data they used to train a generative AI model. Generative AI can't tell a user what data it used to generate particular content, nor can it accurately cite its sources or produce a reliable bibliography. Because of this, content from generative AI cannot be used as a credible and reliable information source.

• AI models sometimes produce incorrect, biased, or outdated information. In some cases a generative AI tool will state that it is unable to provide a correct answer, but in other cases it may generate a false answer that appears to be correct. This is known as a "hallucination." For example, ChatGPT sometimes fabricates citations to sources that do not exist. To avoid using or spreading misinformation, verify the accuracy of AI-generated content using reliable sources before including it in your work.

بعض الاعتبارات الرئيسية

- غربلة المعلومات FINE tUNING
- التنقيب عن البيانات التي تحتاجها Data Mining
- التنازل عن ميزة للحصول على ميزة أخرى Trade off
 - لابد من استخدام التطبيقات
 - المناسبة لما تقوم به Appropriate applications
- Transform Education Using (DOGE) i.e : Department of Government Efficiency.

- Using 5G marks a transformative leap in telecommunications to improve performance in education
- Reverse Engineering the Brain
- الهندسة العكسية للدماغ. Decoding the Human Mind to Shape a Smart Future
- تقنية تتبع العين تحدث ثورة في عالم القراءة Eye-Tracking Tech : Agame د تقنية تتبع العين تحدث ثورة في عالم القراءة Changer for Reading
 - ChatGPT vs. DeepSeek: Which One Is Best for You?
 - Using 5G marks a transformative leap in telecommunications to improve performance in education
 - Reverse Engineering the Brain
 - الهندسة العكسية للدماغ Decoding the Human Mind to Shape a Smart Future.
 - تقنية تتبع العين تحدث ثورة في عالم القراءة Eye-Tracking Tech : Agame Changer for Reading
 - ChatGPT vs. DeepSeek: Which One Is Best for You?