

Student Guide



Using ChatGPT and other Artificial Intelligence (AI) Tools in Education



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CILT
University of Cape Town
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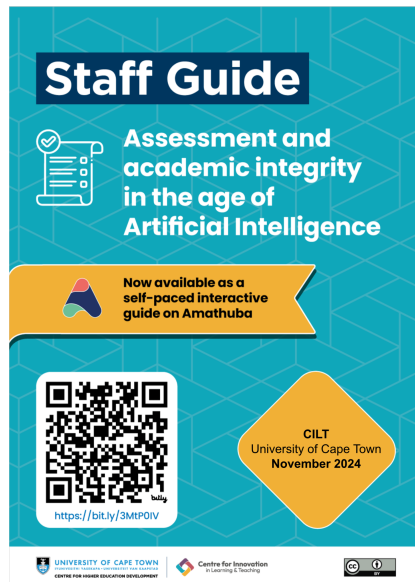


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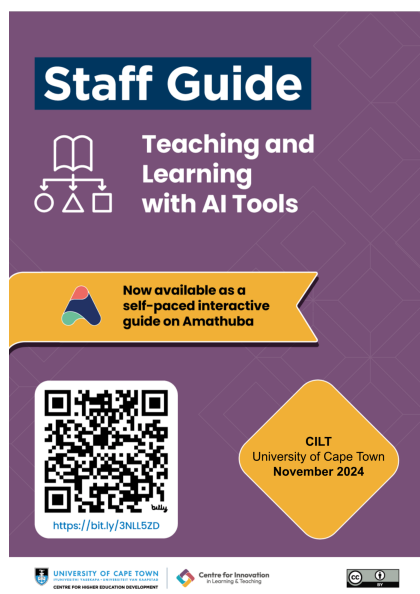


This guide offers advice to students on ethical approaches to using ChatGPT and other generative AI tools in education. AI is a fast-changing space, and the information in this guide is likely to become out-of-date quickly. This version was updated in January 2024, and will be updated regularly to include significant developments.

Other CILT guides in this series:



Staff Guide: [Assessment and academic integrity in the age of artificial intelligence](#)



Staff Guide: [Teaching and learning with AI tools](#)



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The purpose of this guide is to take you through some of the current debates about the risks and benefits of using artificial intelligence and more particularly, ChatGPT for learning. To effectively make use of the ChatGPT tool, it is important to know how it generates its outputs.



What is AI?

The Artificial Intelligence (AI) definition has developed over time, from “the science and engineering of making intelligent machines” in 1956 (McCarthy, 2007, p.2) to broader ones describing AI as a range of technologies that perform intellectual learning tasks, such as machine learning, natural language processing, data mining, neural networks or an algorithm (Zawacki-Richter et al., 2019). AI has become an integral part of various applications and settings. As AI evolves, a powerful branch called generative AI is emerging. This type of AI can create new content, like text, images, and code. [ChatGPT](#), [CoPilot](#) and [Google Bard](#) are examples of generative AI.

What's the big deal with generative AI such as ChatGPT?

- ChatGPT (<https://chat.openai.com/>), which stands for Chat Generative Pre-trained Transformer, has gained a lot of attention since its release in November 2022. Currently, anyone can sign up for a free account using version 3.5, although improved versions (eg. ChatGPT Plus) are a paid-for service.
- It is a software in the form of a chatbot that was developed by [OpenAI](#). It is built on a category of AI tools known as ‘[Large Language Models](#)’ (LLM), which can perform various natural language processing tasks, such as generating and classifying text, providing answers to questions in a conversational style and translating texts from one language to another.
- Some claim ChatGPT will become the ‘[greatest cheating machine ever](#)’, while others argue that it will open [new possibilities](#) to enhance or improve our skills as the tool that can help automate mundane and routine tasks.
- More AI tools are being developed, which also operate using LLMs, like ChatGPT but access information from the internet, and focus more on operating as search tools.



How does ChatGPT generate its outputs?

ChatGPT is a software that generates its outputs using natural language processing algorithms. When a user inputs a prompt, it analyses the prompt using its trained knowledge and generates a response. ChatGPT's trained knowledge is based on a vast amount of text data that it has been fed from the Internet. Its outputs are thus only as good as the data it has been trained on. If the training data contains misinformation and biases, then its outputs will reflect those issues.

As a software which produces its response based on algorithms, it lacks understanding of real-world experiences, social and cultural distinctions. The responses it produces thus may not be contextually relevant or lack real understanding. These mechanisms that govern how ChatGPT produces its responses lead to some risks in using ChatGPT or similar AI tools.



Risks and Ethics of using ChatGPT (or similar tools) in education

While ChatGPT can help you with your learning or preparing for an assignment, its outputs may be outdated or contain errors and biases. Here are some risks associated with using ChatGPT:

- **Inaccuracies in data fed:** While ChatGPT's outputs may come across as reliable and convincing, its responses are based on next word predictions. The software has no real

understanding, and no capacity to distinguish right from wrong, or correct from incorrect. ChatGPT-3.5, as an AI has the capacity to ‘hallucinate’ and produce misinformation. It is important to evaluate and verify ChatGPT responses and not take the information generated as given. Read more about [why ChatGPT produces inaccuracies](#).

- **Built-in biases:** AI is trained off data sets which contain implicit/indirect and explicit/direct biases, including overlooking local knowledge, lack of cultural diversity, dominance of Western influential knowledge; baked in racism, sexism, and other undesirable values (read more about [bias and fairness in AI systems](#)). ChatGPT follows the ‘garbage-in-garbage out’ principle, meaning if the data it has been fed is biased, then its responses will reflect that bias. You need to be aware of the potential bias in ChatGPT’s outputs and critically evaluate the information it produces. There have also been allegations of unfair/ exploitative labour practices in the training of AI.
- **Relevance of data fed:** ChatGPT-3.5 is trained on data that is publicly available up until January 2022. It, thus, may not have the latest information or developments in a field or topic. When using ChatGPT, you should double-check its outputs and consult sources to ensure that the information provided is up-to-date and relevant.
- **Dependence/Overreliance:** Assignments serve the purpose of helping us learn and practice skills that we will need in society. While ChatGPT can help automate some tasks, it is important that you do not become overly reliant on it so that it hinders your ability to craft and think critically for yourself. Research suggests that being too reliant on ChatGPT can lead to loss of some important cognitive skills and prime us to think in a certain way. You can read more about how [ChatGPT can homogenise our lives](#).

Now that you know how ChatGPT generates its outputs and the risks and ethical considerations associated with it, let’s look at how you can effectively use the tool to help you learn better.



How ChatGPT can help you in your learning processes?

AI tools are here to stay and can be used to aid your learning but should not be used to complete your assignments. There are several ways ChatGPT can be used effectively in your learning, such as the examples below:

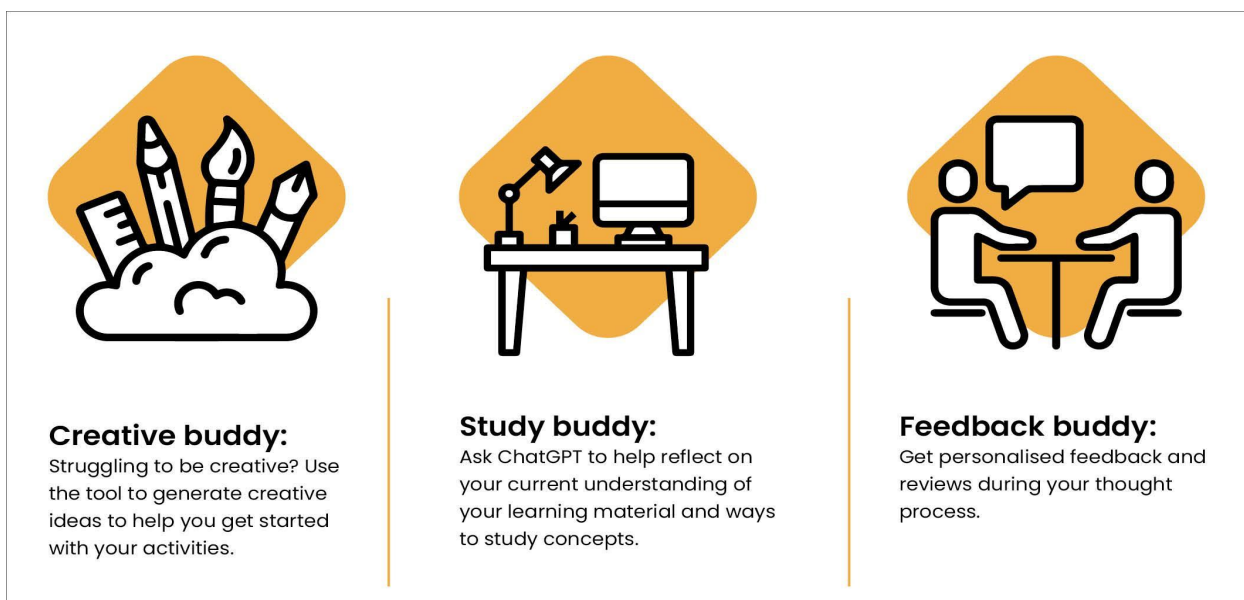


Figure 1: Less-risky ways of using ChatGPT for effective learning (adapted from the 2023 UNESCO [Quick Start Guide: ChatGPT and Artificial Intelligence in higher education](#))

Here are other AI tools to explore:

- Generative AI ([Google Gemini](#), [CoPilot](#))
- Writing/text ([QuillBot](#), [Sudowrite](#), [WriteSonic](#), [Jasper](#), [You](#), [Moonbeam](#))
- Visual AI ([DALL E2](#), [DALL E3](#), [Midjourney](#))
- Media generation ([AI-generated art](#))
- Research and publishing ([Perplexity AI](#), [Researcher Life](#), [Elicit](#), [Sci Space](#)),

However, it is important for you to know *what is permitted in your course* so you can make informed decisions. To begin with, check the university, department and course policies around academic integrity and plagiarism, and ask your lecturer to clarify about the use of AI for course assessments.



AI Tools and Academic Integrity

You need to make sure you do not use AI tools inappropriately and be accused of plagiarism. It may be tempting to pass off AI generated work as your own, since it is not 'copying' other students' work but unless you declare it, generating assignments using ChatGPT means it is not your own work. Assessments are designed to test your understanding of a subject and your ability to apply that knowledge and to prepare you for the workplace. If you use AI to simply write your assessment the value of the assessment would be diminished; you may not develop the required skills for your future studies or career, and you could be accused of plagiarism.

"Plagiarism is the misappropriation of others' words, thoughts and ideas by presenting them as one's own, and is treated very seriously in the academic world. Under no

circumstances is it acceptable to present the work of others as your own.” [UCT Author-date Reference Guide: based on the Harvard referencing style](#) (2016)

The distinction between using AI as an enabler or assistant and using AI as an authoring tool has an impact on academic integrity – using AI tools for assistance can be done effectively without plagiarising. Not all lecturers and supervisors will have the same views, so check first, but the following are some examples of appropriate and questionable uses of generative AI.

DO	Uses of generative AI at university likely to be acceptable	DON'T	Uses of generative AI at university likely to be unacceptable
✓	Find out whether or how AI tools can be used for each assignment before starting	x	Use AI tools when they are specifically prohibited
✓	Attribute the use of AI (eg APA style)	x	Use AI tools without acknowledgement
✓	Use AI as a prompt for an outline (unless specifically prohibited)	x	Copy an AI output and pass it off as your own work
✓	Brainstorm ideas or request summaries of information	x	Trust AI outputs without doing a critical check for facts and sources
✓	Ask ChatGPT to rephrase a difficult concept into simpler language	x	Share any personal information or upload copyrighted materials
✓	Save your prompts and the outputs in case you are challenged about your use	x	Use AI tools when original content is being expected

- First ask the lecturers and tutors for guidance about using AI tools for the course assessments.
- Always validate outputs from ChatGPT or other AI tools – that is, applying [critical literacy](#) skills to evaluate content.
- Make sure that the final product is **your own work**, and not just copied from an AI generator. You can use the generated text as a learning tool to formulate initial ideas or to suggest an essay structure, but the final submitted assessment must be your own work, creation, and analysis.
- You must appropriately [acknowledge](#) where AI generative tools have been used in an assessment or any other part of your work, clearly indicate where you have used the AI generative tool and the extent to which it was used. Using AI-generated content without acknowledgement is a breach of academic integrity that may result in academic misconduct allegations and subsequent consequences.



The UCT Code of Conduct is as follows:

UCT RULES ON CONDUCT FOR STUDENTS

Student Rules – Academic conduct

RCS2.3

A student may not submit the work of any other person in any examination, test or in respect of the completion and/or submission of any other form of academic assessment without full and proper attribution and acknowledgement – dishonest conduct.

NOTE: Guidance on forms of referencing is available from academic staff, the staff of the UCT Libraries and from the Writing Centre.

References

[UCT Framework for Artificial Intelligence in Education: Generative and Other AI in Teaching, Learning and Assessment](#) (June 2025)

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UNESCO (2022). Recommendations on the [Ethics of Artificial Intelligence](#), Paris, France.

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education—where are the educators? *International Journal of Educational Technology in Higher Education*, 16(1), 1–27. Available: doi: 10.1186/s41239-019-0171-0

What you need to know about ChatGPT and other AI tools (Deakin University)

Avoiding Plagiarism: A Guide for Students (UCT)

Quick Start Guide: ChatGPT and Artificial Intelligence in higher education (UNESCO)

ChatGPT for Learning and Teaching: A comprehensive resource about generative ‘artificial intelligence’ (Wits University)

Getting started with Generative AI Tools
CHERTL Rhodes University

ChatGPT for Higher Education and Professional Development: A Guide to Conversational AI (University of Rhode Island)

UCT Libraries AI Guide
<https://libguides.lib.uct.ac.za/AIforResearch>

