

Quick Guide to Artificial Intelligence

FOAE 202330 see the presentation here: <https://www.youtube.com/watch?v=-ZEZ6bWAjgs>

1) Generative AI

- Creates instantaneous responses and can take in complex prompts
- Does many of our assessment tasks to a pass standard.
- It probably won't show up in Turnitin because it creates unique responses each time

2) Assessments: Take AI on

There are things that might make it more difficult for students to use AI in our tasks:

- Beyond the general: Move from generic or general to specific contextual elements that are individualised
- Beyond self-contained tasks: Link things back to your learning materials (e.g. 'In module 5')
- Beyond written text: Include non-textual elements in your task and in what you require from students (e.g. audio)
- Beyond 2021: Include current or recent events in your task.
- Beyond asynchronous: Find the synchronous moment (where can students stand behind their work?)

3) Assessments: Take AI up

There are things we can do to include AI in our tasks:

- Critique: get students to critique an AI-generated response to a question/ prompt
- Compare: get students to try tasks with and without AI and to reflect on the results
- Account: get students to use AI for aspects of a task, and to account for that use
- Big Issues: Allow students free reign with AI with respect to intractable issues or problems
- NB: AI might not be open and free for long

4) Talk

- Relationally: Students are people not input/output machines
- Practically: Why are the assessments relevant? What AI use is allowed (if any)? How is AI to be acknowledged? What does an AI-response look like for the task?
- Big: What existential issues does AI create for your subject?

5) Test

- Your assessments: submit them to chatGPT, submit the responses to Turnitin so you have a record
- Your student submissions: look for non-matching writing styles, made up facts/references, overly studious, vague, too well-proportioned, confidently wrong.

Notes on Quick Guide to Artificial Intelligence and Assessments

FOAE 202330

Dr Lachlan Brown (Academic Integrity Officer, Faculty of Arts and Education, Charles Sturt University)

3 Feb 2023

1) Generative AI:

ChatGPT is the latest in a number of generative AI programs that have changed what is possible in the field. We call this generative AI because it can read quite sophisticated commands (e.g. the parameters for an assessment task) and it can generate a complex response. ChatGPT is also sophisticated enough to remember conversation threads and change outputs based on further refining instructions.

There is something eerie about experiencing ChatGPT (or previous AI generators) at work. We get the sense that the entire landscape is shifting beneath us. Seeing our complex essay questions instantaneously dissected and addressed, our case studies nonchalantly solved without fuss, our poems analysed in technical detail, can be extremely disconcerting. In time, one can feel out the limits of the program. It is shallow, its data set cuts off in 2021, it makes up alternative facts and lumbers on its merry way like an alpha-male on a bad date.

But students will be using this kind of algorithm to respond to prompts and refine answers. And so we must be ready.

To this end, we've come up with a quick guide to help get us thinking about assessment in the age of AI. This is not here as a set of rules, but as a starting point for discipline-specific approaches and methods.

2) Taking AI on

While generative AI is always improving and it seems omniscient (not to mention very powerful), there are ways of designing our assessments so that they can be slightly harder to complete using AI. These are limited, and AI will probably evolve quickly and respond to its current weaknesses.

Rethinking some aspects of assessment

| Assessment Characteristic | Explanation | Alternative/ Strategy |
|---|--|--|
| Regurgitation/ Summarisation/ Short Answers/ General Reflection Statements/ Surface level analysis/ Mechanical tasks like formatting references | This kind of lower-order task is extremely easy for generative AI to undertake. | Can you add elements that are so specific to students' contexts, circumstances, experiences that may make it difficult for AI? |
| Entirely self-contained tasks | Such tasks can be placed into an AI prompt <i>in toto</i> . The AI will complete the work based on a comprehensive prompt. | Instead you may want to point to things discussed in lectures/ modules/ teaching moments but leave them for students to access (e.g. 'As |

| | | |
|---|--|---|
| | | discussed in minute 25 of lecture 3'). |
| Only textual inputs (e.g. written case studies and a written assessment question) | AI responds well to textual inputs. It can respond to them fairly easily. Currently, it has more difficulty responding to other media. | Can you add a non-textual element to your task descriptor? E.g. a video or audio describing your case study, a videoed news item, an image or artwork that can add a further dimension to the task |
| Only textual outputs | Much of current AI produces textual outputs (there are also image generators). | Can you require something from your students that is not just text? E.g. audio interview, photographs of process, running an event, |
| Material before 2021 | chatGPT has a dataset that cuts off in 2021. This may change in future. | Can you include something from 2022 onwards? E.g. current news or research |

Rethinking or reintroducing the synchronous moment

Given the power of generative AI, it is worth considering whether you have places in your subjects in which students must stand behind or alongside their learning artefacts (the things they've produced). If everything is entirely asynchronous, then there may be a temptation for students to outsource tasks to AI. But if students have to stand alongside their work, if they need to defend or explain it, then there is a greater motivation to complete the learning themselves. You don't need to make absolutely everything an invigilated closed-book exam. But finding the synchronous moment across your suite of assessment can be helpful. The following options might be suitable for your subject:

- Can students present their work to the class?
- Should we use a viva or interactive oral where students are interviewed about something they've created?
- Can we include a student showcase of assessments or sections of assessments?
- Is this learning artefact something they will take with them into their career/ profession?

3) Taking up AI

If AI has changed the game for assessment, this may mean that we will need to think about how best to incorporate it into our modes of teaching. If students are going to use AI despite our strident admonitions, then perhaps we could think of the types of assessment that might involve AI. Examples could include:

- Asking students to critique an AI-generated response from their particular standpoint/background or according to technical knowledge

- Asking students to reflect on two tasks: one they completed with an AI and one they completed without an AI
- Allowing students to use AI for aspects of a task (e.g. planning, checking, formatting references) and getting them to include an account of that use.
- Seeing what students may produce with AI-assistance when they have to approach some of the largest intractable questions of your discipline or area.

This may help prepare students to critically engage with the tools that might soon be in-use across various parts of society. NB: chatGPT is currently free for research purposes, but it is likely that it will become paid like many other AI services.

4) Talk

Talk Relationally

Our pedagogical relationships can frame assessment in various ways. One risk for our students is that they may feel as though they are being treated as 'input/ output' machines. This can be due to broader frameworks (e.g. credentialism, consumerism), and the kinds of risk-averse administrative processes that are endemic within institutionalised education. If students are treated merely as assessment output machines, then we shouldn't be surprised when they outsource parts of that role to AI. And so it's good to talk to students about formation, about larger goals, about who they are as people and how your subject might fit within their lives.

Talk Practically

You'll need to show students that you are aware of AI generators, and that you have a stance on their use.

- Articulate the reason for each assessment. Why are we insisting on a particular form? How might this be related to professional formation?
- Be clear about whether or not you are allowing/ encouraging AI use in each task (and give a reason, e.g. 'I would like to see your own written expression, because that is a key part of your formation as a professional')
- Present an AI-generated response to your class and talk through it. Probe its strengths and weakness.

Talk Big

We'd encourage you not to miss the moment. AI may be fundamentally reorganising our fields and disciplines. It could be drastically reordering society and professions as we speak. This can lead to fascinating discussions or debates with students. University should be the very place for those discussions. Make space for them.

5) Test

Our Assessments

It should be obvious that we need to test our own assessment tasks using generative AI. What does it look like when I copy and paste my subject outline question into chatGPT? How hard is it to change the prompts and parameters to get something of a high standard? This stress-testing of our own tasks will help us to better design them, and it will also help us to

determine whether students are turning in AI-produced work. You may wish to place the AI responses into Turnitin as a record against which student work can later be checked (AI doesn't generally repeat itself, but it might create similar structures or patterns).

Student Responses

Can we tell whether something has been written by AI? We'd encourage you to consider the following and to contact us if you have concerns. There are general indicators that might be characteristic of AI. And there are programs like GPTzero that claim to have data-based analysis (these are yet to be tested themselves, but are making some progress).

- Does it match the student's 'normal' writing/ expression?
- Does it contain made up facts or references? (being a language model, current AI will often fill things out with artificial information: ask it for our own biography if you want a sense of this)
- Is it a bit studious or over the top in its explanations (e.g. providing rationales for answers to multiple choice questions)?
- Is it a vague pass-level answer that looks okay on the surface but doesn't engage with any depth.
- Are all the sections/paragraphs of equal length and (too) well-proportioned? NB: You can ask AI to include a couple of 'undergraduate' errors, but students may not do this.
- Is it extremely logically organised but not really cognisant of basic facts?
- Does it plough on with confidence even when it's obviously wrong?

If you have further concerns, please feel free to contact the Faculty Academic Integrity Officers:

Dr Lachlan Brown (labrown@csu.edu.au)

Dr Daniel Cohen (dcohen@csu.edu.au)

If you wish to report any potential student academic integrity breach, you can do so by filling out the webform here: <https://www.csu.edu.au/office/student-safety-wellbeing/student-conduct/student-misconduct>