National Centre for Artificial Intelligence in tertiary education: supporting human-led education

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About National Centre for AI in Tertiary Education

**Aim:** To accelerate the adoption of artificial intelligence across the tertiary education sector in a responsible way.
Our maturity model

Adapting existing models for AI maturity to the education sector

**Approaching and understanding**
- Interested in AI
- Understanding how it has impacted or is transforming other sectors

**Experimenting and exploring**
- Experimentation and pilots within existing processes
- Data culture to support AI emerging
- AI ethics processes established

**Operational**
- AI used for one or more processes across an organisation eg chatbots for a specific purpose or adaptive learning systems

**Embedded**
- AI embedded in strategy
- Data maturity allows AI to be considered for all new systems and processes
- AI models and systems' effectiveness monitored as part of business as usual

**Transformational**
- AI has transformed the learning and teaching experience
- The tutor is free from all routine admin tasks to focus on supporting students
- The student has a fully personalised learning experience
Pilot example: Graide

Accelerating marking of STEM

Initially created by University of Birmingham students
Information example:

A generative AI primer

https://nationalcentreforai.jiscinvolve.org/wp/2023/05/11/generative-ai-primer/
Events/Insights:

- Student discussion forums:
- Critical thinking
- Information literacy
- Employment
### Community:

#### Sector level advice for senior leaders
- How to manage an external unexpected change into a controlled response

#### Assessment
- Short term and long term
- Assessment types

#### Advice for students
- Briefing notes for institutions
- Nuancing policy
Assessment & detection
London school likely to scrap essay homework due to fears of ChatGPT manipulation

Artificial intelligence software risks making traditional essays redundant

AI chatbot’s MBA exam pass poses test for business schools

AI is killing off homework with one school ditching essays due to ChatGPT

Lecturers urged to review assessments in UK amid concerns over new AI tool

ChatGPT is capable of producing high-quality essays with minimal human input

Sally Weale, Education correspondent

ChatGPT: what can the extraordinary artificial intelligence chatbot do?

Write me a list of 100 ways to be more motivated

1. Set specific, achievable goals.
2. Make a plan and stick to it.
3. Break big tasks into smaller ones.
4. Break your procrastination.
5. Track your progress.
7. Find a supporter or accountability partner.
8. Reflect on your progress.

ChatGPT has already triggered concerns about the potential for hard-to-detect plagiarism and questions about the validity of the essay as a future form of assessment. Photograph: Arcanitas/Akemy.

Lecturers at UK universities have been urged to review the way in which
But this problem isn’t new…

The future of assessment: five principles, five targets for 2025 (Jisc, 2020)

However, there is also a growing need to monitor how new technology is being used to break assessment rules. Cheating has never been easier or more prevalent. A recent study by Swansea University (swansea.ac.uk/press-office/latest-research/) analysed surveys dating back to 1978 in which students were asked if they had ever paid for someone else to complete their work. The findings – covering 54,514 participants – showed a 15.7% rise between 2014 and 2018 in the number of students who admitted cheating. Essay mills – online companies that offer essay writing services – are seen to be at the heart of the problem. Illegal in some countries, a ban on their operation in the UK has been called for (https://ji.sc/the-guardian-ban-essay-mills) by more than 40 vice-chancellors.

Academic integrity is at the heart of this issue. Better assessment design, resulting in fresh, situated, personalised assessment tasks which effectively design out reasons and opportunities to buy in essays, has a role to play in reducing the likelihood of cheating. Technology can play a part.
Where do we draw the line?

Acceptable

Use of Spell and Grammar Checker in a word processor

1

2

3

4

Not Acceptable

Submission of prose entirely generated by a large language model (generative AI) claiming it is your work
A short experiment in defeating a ChatGP detector

In our webinar before Christmas, we suggested that "A war between AI plagiarism detection software and generative AI won't help anyone"

We want to share a quick example that shows why this might be the case.

For this experiment, we are using QPTZeroX, which has recently been updated. Our aim isn't to call out a particular product but instead to give a flavour of the battle that's to come if we rely on AI writing detectors.

AI writing detectors – concepts and considerations

There has been much discussion of the role of AI writing detectors.

The issue has become more urgent for us with Turnitin announcing the imminent release of an AI detector. At the moment we've very little information about the Turnitin offering, other than the detail in the press release, where it claims 97% accuracy (recall) and 1% false positive, so in this post we'll explore the issue more generally.
What’s coming next
ChatGPT and Generative AI

What we see across the sector

- Early discussion all around assessment and policy (avoid, outrun, embrace)
- Initial assessment guidance
- Some early (speculative) ideas about how to use it in learning and teaching
- Broad acknowledgement that work will change too, but limited action at the moment
Everyday GPT:

**Copilot in Word** writes, edits, summarises and creates right alongside people as they work.
Education tools

- lessonplans.ai
- TEACHERMATIC
- CogBooks
- ANYWYSE
- Quizlet
- Noodle Factory
- grammarly
- turnitin
- bodyswaps
- gradescope
- SentiraXR
- SimConverse
The issues we are exploring…

• There are a growing field of tools that have the potential to disrupt education—both in positive and negative ways.

• What does it mean if AI tools can write essays, solve maths problems or automatically code programming tasks?

• Do we see these as tools enabling students to ‘cheat’, or can we harness them?
ChatGPT and Generative AI

Our take: short term

- Embrace/adapt.
- AI is rapidly getting built in to all the tools we use.
- Spend time understanding it, thinking about impact on assessment etc
- Relying on AI detection is going to be problematic.
- Don’t feel the need to rush into using it in teaching – things are changing rapidly.
- Discuss, collaborate, sector view
Contact details

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