GUIDELINES FOR EXAMINERS ON THE IMPACT OF AI TOOLS[1]

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1. Introduction

In late 2022 OpenAI launched its newest generation chatbot – called ChatGPT. It's launch has generated a lot of attention in all levels of education since it can potentially have a large impact on the way education and assessment of that education is conducted. Therefore, it was deemed advisable to inform examiners on ChatGPT and to offer guidelines regarding assessment. Please note that ChatGPT is merely an example of AI-tools that may affect education and assessment. Where this document refers to ChatGPT it also means similar AI innovations. These tools develop rapidly and what may be presented in this document may be outdated tomorrow. Please also be aware that both the Board of Examiners and Education Management start from the premise that most students want to show in honest that they master learning outcomes and have no interest in cheating. In this document we want to give you some guidelines on how to deal with ChatGPT.

2. What is ChatGPT?

ChatGPT (Generative Pre-trained Transformer) is software that generates answers to questions based on a vast knowledge database with relatively high accuracy and readability, hardly distinguishable from human texts. It can produce summaries, answers to essay questions, papers, programming code etc.
ChatGPT cannot reason or produce original knowledge. However, it can combine information from different sources in such a confident and convincing way that it gives the semblance of understanding and reasoning.
ChatGPT is based on the Transformer architecture, which is a type of deep neural network designed to process sequential data (such as text). It uses mechanisms to calculate relationships between words in a sentence and generate a context- aware representation for each word, which is then used to generate the final text output. ChatGPT is trained on a big corpus of text data, allowing it to learn general knowledge and patterns in language. During the feeding process, the model is trained to predict the next word in a given sequence of text. ChatGPT – at this point in time – does not search the internet in forming an answer to a prompt given to it. Other AI tools that do search the internet while formulating an answer exist.

3. Impact on Education and Assessment.

The potential problem with ChatGPT lies in the fact that students can use texts, ideas and angles of approach generated by ChatGPT and pass them off as their own. This becomes problematic if students do this in assessment that is meant to assess whether they have reached the intended learning outcomes meant to be measured by that assessment. In a worst-case scenario that would mean that a student passes the assessment and is awarded the corresponding EC without having mastered the learning outcomes. Such behaviour would

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[1] This document was compiled on the basis of similar documents introduced in FSE, SBE and FASoS. Credits go to Dave Vliegenthart and Lonneke Bevers from FSE, who compiled the original document.

be deemed fraud in light of the Rules and Regulations and the Education and Exam Regulations. The student Code of Conduct has also been adapted in such a way that it prohibits the use of AI unless explicitly allowed in education.

4. Short term guidelines regarding Assessment.

The potential impact of ChatGPT on assessment may lead to rethinking or adapting assessment in your particular course:

- Critically reflect on the mode of assessment in your course in light of the assessment plan of the programme in which your course is situated. – You may want to check out for yourself how ChatGPT deals with your assessment method.
- Reconsider take-home exams, alternatively use exams in a controlled environment.
- When using assignments – use a declaration of integrity.
- Have students integrate content from the course into their written assignments (with concrete references)/use case positions.
- Contemplate using non-written elements in your assessment.

When you want to change the assessment method in your course – **notify the relevant Director of Studies.** They decide on whether and in what form assessment takes place within the programme.

Should you want to use ChatGPT in your course/assessment – please contact the relevant Director of Studies and the Board of Examiners. Using 3d party software in education/assessment also has security/GDPR implications that need to be addressed.

5. Assessing written work.

When you are questioning whether students have (illegitimately) used ChatGPT in written work:
- Look for unusual language or formatting: text (partly) produced by ChatGPT may be atypical of student work, with unusual or repeated phrases or differences in style, syntax, spelling and punctuation of different sections of the same text; pay extra attention to the content and reasoning of such sections/texts. Be aware that ChatGPT may be prompted to write in a certain style.
- Always use a plagiarism check: texts produced by chatGPT may contain excerpts from other sources without proper attribution, which plagiarism detection software such as Ouriginal can detect. A very low Ouriginal matching percentage may also be suspicious.
- The sources referenced by ChatGPT could be made up. The AI can create fake DOIs. Check the sources provided in the work.
- So far, at least five AI text detection tools were circulated on the internet:
- https://gptzero.me/
- https://openai-openai-detector.hf.space/
- http://gltr.io/dist/index.html
- https://writer.com/ai-content-detector/
- https://platform.openai.com/ai-text-classifier

NB: For GPTzero, the text should be at least 10 sentences long with a maximum of 5000 characters. You also have the option of uploading a paper via the upload button.

For Open AI, you can enter max. 510 tokens (characters, spaces); we recommend around 200 tokens (characters, spaces) per sample. The result is considered reliable after around 50 tokens but the more text is included, the more reliable the outcome is. The AI Text Classifier (platform.openai) requires a minimum of 1,000 characters (approx. 150-250 words).

All available software tools are still beta versions, which provide probabilistic results. It is not yet known how reliable their checks are. Therefore, we advise you to use them cautiously and only as a means to confirm several other findings (e.g. writing style as mentioned above, lacking claims, no real argumentation, meagre referencing, fake sources).

If you suspect fraud contact the Board of Examiners: examslaw@maastrichtuniversity.nl. Only the BoE may establish and sanction cases of fraud!

6. Long term developments.

AI tools are here to stay. In relatively short term they will need to be integrated in our education and assessment. Directors of Studies and the Board of Examiners will continue working on adapting curricula and programme assessment plans to deal with this new reality. Fundamentally, a discussion on the deeper meaning of education and assessment of that education will have to take place. We explicitly invite everybody to partake in this discussion.

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