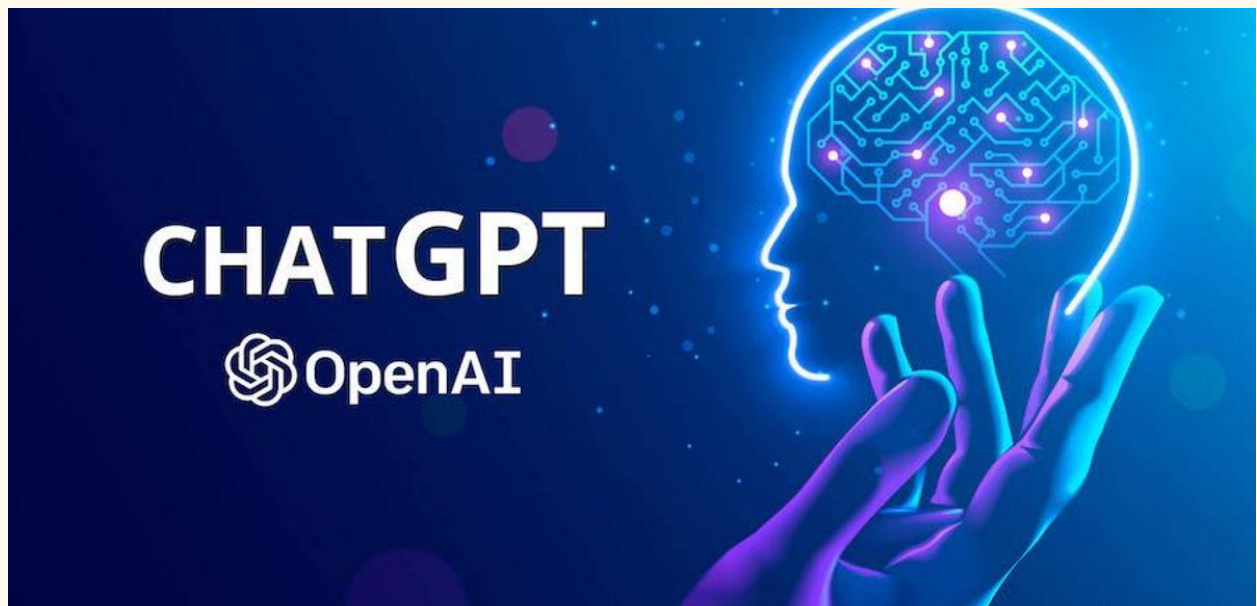


# Assessment in the age of AI/ChatGPT

## Third-Level, Computer Science

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By Dennis, Jai & Rohan



## INTRODUCTION

“ChatGPT is scary good. We are not far from dangerously strong AI”, a quote from Musk him stating that AI is both our “biggest existential threat” and that we are “summoning the demon”.(Hook) Is he right, or just overly reactionary? In the context of educational assessment comparing AI to the devil might be excessive, but it doesn’t mean we should be careless. (Main Thesis) Our aim with this paper is to research the negative impacts of using AI like ChatGPT in academic circles. (Dennis)

## Structure & Scope

In our paper, we will discuss what ChatGPT excels at. We will look at the questions posed by Brady D. Lund and Ting Wang regarding AI, and compare the answers the AI provides us with to the ethical concerns and what it means for academia found in other papers. The literature explains the negative impacts of chatGPT, but there are mentions of the positive impacts. (Dennis)

## Background Information

We all know what ChatGPT is so I won’t waste time going over that. However, what I will do is briefly go over what ChatGPT excels at. When it comes to language generation ChatGPT is excellent at mechanics. It writes in nearly perfect English, with good grammar, syntax, punctuation, vocabulary, and spelling. It is proficient at explaining well-known concepts such as ones in academia. Which is why it is so useful for students. Students can use it for looking up definitions and explanations. I have asked ChatGPT to explain certain concepts to me and I may not understand, I would then ask it to explain it again but simpler, and ChatGPT would compile a new output that is easier to understand. The trade-off for academia is that AI can just as easily be used to cheat for certain criteria. For example, it can be used to generate essays and solve math equations. In both cases, the user is not learning for themselves, but rather allowing the machine to think for them. (Dennis)

## Questions and Answers

(Brady D. Lund and Ting Wang, 2023) asked the AI several questions regarding the scholarly implications of such a powerful AI. We will label these questions with a “Q:” and answers with a “A:”.

(Bishop 2023)Q: How can ChatGPT be used to improve research and scholarship in academia?  
A:The AI gave a long list of reasons but a few stood out with their ethical connotations. Firstly, “Data analysis: ChatGPT can assist researchers in analyzing large amounts of text data, such as social media posts or news articles, by providing insights and identifying patterns in the data.” This raises the ethical concern of privacy, if ChatGPT can analyze texts that are given to it. According to the article “ChatGPT User Experience: Implications for Education” by (Xiaoming Zhai, 2023), Chat GPT's ability to generate highly realistic synthetic text or speech could be used to impersonate or deceive others, which would be a violation of the user's privacy. Additionally, Chat GPT could answer assessment questions for universities or schools using the information of other people with similar questions. Chat GPT does not tell these people that it is using their information to answer other questions asked of it. (Dennis & Jai)

Q: What ethical issues should be considered when using ChatGPT within academic libraries?  
A:Once again the AI gave a long and extensive list of concerns but the ones that interested us were bias, intellectual property, and transparency. The AI may have a training bias in which the data it was fed by its creators may be skewed to one side. A: The article “ChatGPT User Experience: Implications for Education” by (Xiaoming Zhai, 2023) talks about the lack of transparency in Artificial Intelligence tools. Chat GPT responses can sometimes be difficult to understand and interpret, making it difficult for educators and students to understand how decisions are being made. (Jai)

Q: What are the ethical and privacy implications of using ChatGPT in academic settings?

A: The question of privacy has been raised before the rise of ChatGPT, such as with the use of cameras being on during online exams, where students could feel uneasy and stressed by the constant surveillance during this exam. (Teo Susnjak, 2022). Nowadays with the introduction of chatGPT, there are other ethical concerns regarding privacy and security. Such as the transparency towards students and their families regarding data collection. This data could be used to carry out regular audits to improve the product or seek out vulnerabilities. Or the education and awareness of the staff, i.e., educators and students about the data privacy and security policies, regulations, ethical concerns, and best practices to handle and report related

risks. (Enkelejda Kasneci, 2023). These are just some of the concerns brought up by their team. One of the more important and common ethical concerns with regards to the use of ChatGPT in assessment is the use of the ai to what is cheating, or plagiarizing an ai. (Shreya Bhandari, 2023) refers to the process as “Hint Generation”. Since the purpose of the assessment is to test what we have learned, they conducted an experiment in which they compared the learning outcome with the aid of both human tutors and ChatGPT. They concluded that the subjects learned from both, though much more from the human tutor, which proves that AI has not yet surpassed us in teaching. This raises another ethical concern when AI reaches the level of sophistication where their outputs are virtually unrecognizable from that of real tutors, what need will there be for said tutors and teachers to hold their jobs anymore when they can easily be replaced?(Dennis)

Q: How might the use of AI language models such as ChatGPT impact the role and function of libraries and academia, and what are some of the potential advantages of these technologies in these settings?

A: Although some key factors can be found ethically questionable in the usage of ChatGPT for Academic purposes, certain advantages may give us a reason compelling enough not to omit its use entirely. (Brady D. Lund and Ting Wang, 2023)There are newer ways that Chat GPT can provide, to improve the quality of research and scholarship in academia, like literature review assistance, text generation, data analysis, language translation, and automated summarization. It is found incredibly useful in identifying the relevant literature as it generates summaries of articles while also providing various papers based on the relevant topics. GPT can generate text in a specific style or tone, which enables researchers to easily generate draft versions of research papers, grant proposals, and other written materials. Along with that, it gives researchers the added advantage of analyzing large amounts of data and providing concise summaries and research statements to better understand the data, which can also be translated from other languages as well.(Rohan)

(Enkelejda Kasneci, 2023)With time comes newer technology, and with that come newer learning methods. ChatGPT is also found to be a key utilitarian in the education industry due to the diverse range of applications they offer. Schools and universities can still find many ways to integrate AI-inspired and generated learning modules for students. “Through the utilization of these models, opportunities for enhancement of learning and teaching experiences may be possible for individuals at all levels of education, including primary, secondary, tertiary and professional development.” An interesting feature that ChatGPT offers is that it can generate exam-like tests, and practice quizzes that students can use for revision and exam preparation, which helps to better understand, contextualize and retain the learning material. The ability to

instantly generate questions and tests encourages students to think critically about what they are reading and writing. Many times students are not able to develop a good grasp on certain concepts and solutions to specific problems which is why ChatGPT can be a quintessential tool as it can provide step-by-step solutions with explanations and concepts which also encourages students to develop an in-depth understanding of the material and nurtures their analytical and out-of-the-box thinking.(Rohan and Jai)

It has also been reported that with the help of ChatGPT, students and other users with disabilities can also use it for studying and learning purposes through speech-to-text or text-to-speech solutions, which thus empowers equal learning opportunities for the disabled as well. With these many advantages and benefits that one can gain access to by simply doing an internet search, it makes it difficult to be entirely ignorant and even against the use of ChatGPT for academic purposes. One has to acknowledge the fact that if an online service can help students all across the world, coming from different backgrounds, education levels, and knowledge, in comprehending, learning, researching, and studying, there is nothing wrong with considering it as a learning tool in the modern education system. The only way to aim for a new and improved tomorrow is by utilizing what we have today to the best of its abilities.(Rohan and Jai)

## Conclusion

But yes, with new learning opportunities and methodologies also come loopholes and cheating methods that can lead to its abuse in the form of plagiarism, online cheating, and unethical coding and problem-solving practices. Students and researchers might find themselves in a position that allows them to skip the process of gruntwork and practice, which is a key factor in learning and improving your knowledge and critical thinking skills. Where initially, a student was just using ChatGPT to study the step-by-step solutions and explanations to a problem, they could now also use it to cheat their way in online tests and exams and have the AI write them research papers and essays which would omit the entire learning experience. This is why it is important to ensure that the AI as well as the academic work product is heavily regulated and monitored closely while also ensuring that the use of the program is only being done for integrating newer and advanced learning modules that only guarantee a positive impact in the field of academia.(Rohan)

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