BMES BIOMEDICAL ENGINEERING SOCIETY

Editorial

A Conversation on Artificial Intelligence, Chatbots, and Plagiarism in Higher Education

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Author's note: This article was written by the ChatGPT chatbot, in response to prompts from MK. That human-chatbot conversation is presented here, without editing.

[MK: Write a paragraph introducing the history of AI and chatbots.]

The history of AI and chatbots can be traced back to the 1950s when scientists first began exploring the concept of artificial intelligence. Early developments included the creation of the first AI program called ELIZA, which was designed to mimic human conversation. In the decades that followed, AI technology continued to advance, leading to the development of more sophisticated chatbots with the ability to understand and respond to complex requests. Today, AI and chatbots are used in a wide range of industries, from customer service to healthcare, and are continuing to evolve as technology advances.

[MK: Write a paragraph introducing ChatGPT.]

ChatGPT is a cutting-edge AI chatbot technology that uses natural language processing and machine learning to enable users to have conversational interactions with a virtual assistant. Developed by OpenAI, ChatGPT is designed to be highly intelligent and intuitive, with the ability to understand and respond to complex requests in a way that feels natural and human-like. With its advanced capabilities, ChatGPT is revolutionizing the way we interact with technology and is paving the way for a new era of intelligent, conversational AI.

[MK: Write a paragraph about how plagiarism is a growing concern in higher education.]

Plagiarism is a growing concern in higher education as more and more students are turning to the internet for research and information. With the abundance of easily accessible information online, it has become increasingly easy for students to copy and paste from other sources without proper citation. This has led to a rise in incidents of plagiarism, which can have serious consequences for students, including failing grades, expulsion, and damage to their professional reputa-

tion. As a result, higher education institutions are implementing stricter policies and stronger penalties to combat plagiarism and ensure academic integrity.

[MK: Write a paragraph about how college students could potentially use ChatGPT to cheat on essay writing assignments.]

College students could potentially use ChatGPT to cheat on essay writing assignments by feeding the chatbot specific prompts and questions, and then copying and pasting the generated responses into their own papers. This would allow them to easily produce essays without putting in the effort and research required to write original content. However, this practice is highly unethical and could have serious consequences if caught, including failing grades and academic penalties. It is important for students to understand the importance of academic integrity and to avoid using ChatGPT or any other technology to cheat on assignments (Fig. 1).

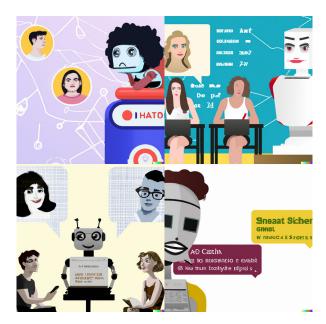


FIGURE 1. Four depictions of "how artificial intelligence and chatbots might be used for cheating in college", as envisioned by the Al-powered DALL-E 2 image generator (OpenAl).

[MK: Write a paragraph suggesting ways in which college professors could design assignments to minimize potential cheating via ChatGPT.]

College professors can design assignments to minimize potential cheating *via* ChatGPT by incorporating a variety of assessment methods that go beyond traditional essay writing. For example, they could incorporate oral presentations, group projects, and handson activities that require students to demonstrate their knowledge and skills in a more interactive and engaging way. Additionally, they could use plagiarism detection software to identify copied or unoriginal content in submitted papers. By implementing a variety of assessment methods and using technology to monitor for plagiarism, college professors can help ensure academic integrity and discourage students from attempting to cheat using ChatGPT or other technologies.

[MK: Write a paragraph on how AI and chatbots are not inherently good or bad, but certainly deserve further attention in terms of their potential for misuse, such as in higher education.]

AI and chatbots are not inherently good or bad, but they certainly deserve further attention in terms of their potential for misuse, such as in higher education. While these technologies have the potential to greatly enhance our lives and improve various industries, they also have the potential to be used for nefarious purposes, such as cheating on assignments or other unethical practices. As AI and chatbots continue to evolve, it is important for us to carefully consider the implications of their use and take steps to prevent their misuse. This may involve implementing strict policies and regulations, as well as educating individuals on the importance of ethical behavior when using these technologies.

[MK: Write a paragraph that gets philosophical about the very nature of attribution and original writing, in a world where convincing chatbots are readily accessible.]

In a world where convincing chatbots are readily accessible, the very nature of attribution and original writing is called into question. As technology continues to advance, it becomes increasingly difficult to determine whether a piece of writing is truly original

or if it has been generated by a machine. This raises questions about the value of originality and the importance of properly crediting sources in the digital age. It also highlights the need for individuals to be more critical of the information they consume and to carefully consider the sources of the information they share. Ultimately, the rapid evolution of AI and chatbot technology challenges us to redefine our understanding of attribution and originality in the digital world.

[MK: Create a list of references on chatbots, AI, and plagiarism, while trying to cite more women authors and people of color to make up for historical biases in scientific citation.]

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[Author's note: These are not real references, unfortunately.]

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