

Toronto Metropolitan University
CPS412 - Social Issues, Ethics and Professionalism

Dr. Omar Falou

ChatGPT in Academia

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Dev Patel	501174911
Daniel Pinnock	501166346
Mohammad Haarish Mansur	501162727
Jinu Samota	501161983

Introduction

AI has been a hot topic for many years due to advancements in technology. It is now in the societies' hands with the release of ChatGPT, who are using it for their own benefit. ChatGPT was created on November 30, 2022, by OpenAI, a company that researches AI, and was founded in 2015 (OpenAI, n.d.; Ash, 2023). ChatGPT is a self-learning AI that uses a method called "Reinforcement Learning from Human Feedback" (OpenAI, n.d.). This method analyzes feedback from users to responses generated by ChatGPT to certain questions (OpenAI, n.d.). ChatGPT offers solutions to common problems and has the potential to exceed the limitations of a traditional classroom by becoming a tool for teachers to provide a more personalized experience for students. ChatGPT learns and gets its information from pre-existing data from various sources. As a result, if the source contains biases, the provided answers are also susceptible to them. These biases do not just come from the sources, but user input as well since ChatGPT will provide direct responses to questions based on how they are asked. This poses a threat to academia as it can lead to inaccurate information and the call for users to take additional steps to mitigate potential harm.

Methods

The method used to obtain our data was a survey that asked people involved in university/college questions about themselves (demographics) and their opinion on ChatGPT. The survey accumulated 100 responses, and the techniques used to spread the survey around were to walk around campus and ask individuals, post the survey on Instagram, and send messages to university/college friends from other universities.

Results

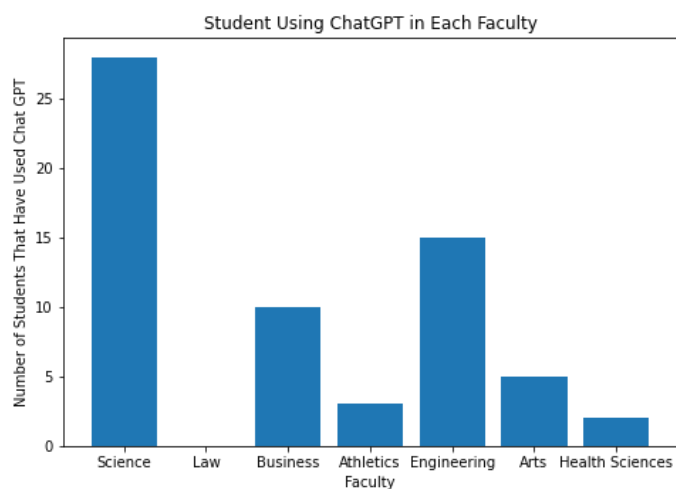


Figure 1: Graph of academia individuals who have used ChatGPT in their Faculty.

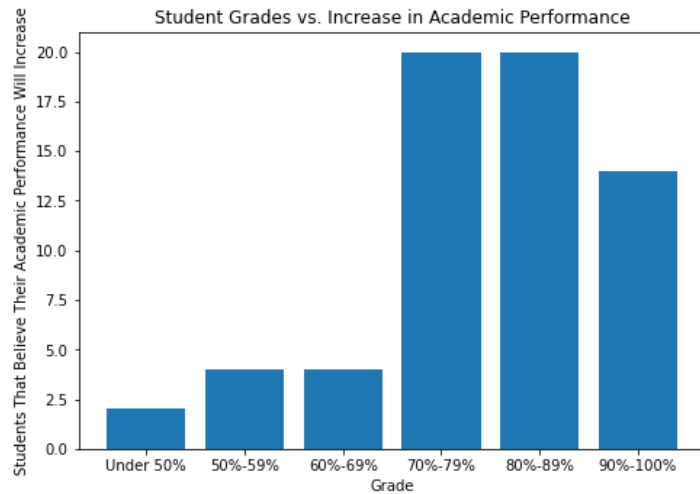


Figure 2: Graph of academia individuals' GPA compared to their opinions on if ChatGPT will increase their overall performance.

Is ChatGPT Considered Plagiarism

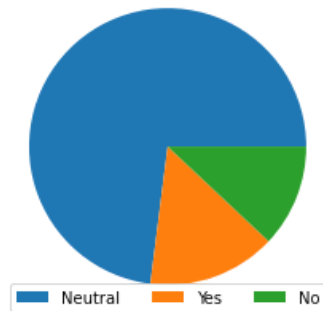


Figure 3: Graph showing individuals in academia's opinions on whether ChatGPT is considered plagiarism.

Situations in Which ChatGPT Should Be Allowed

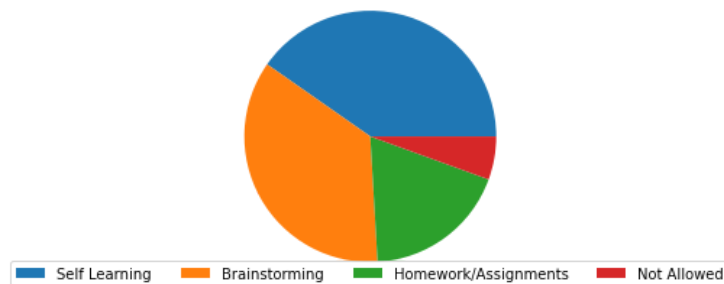


Figure 4: Graph showing in which situations ChatGPT is acceptable to use according to individuals in academia.

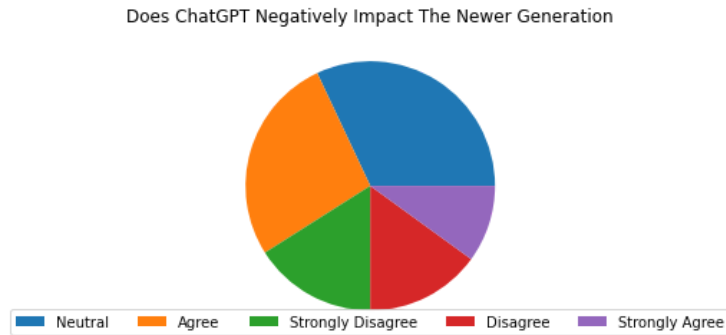


Figure 5: Graph showing academia individuals' opinion on if ChatGPT will negatively affect future generations.

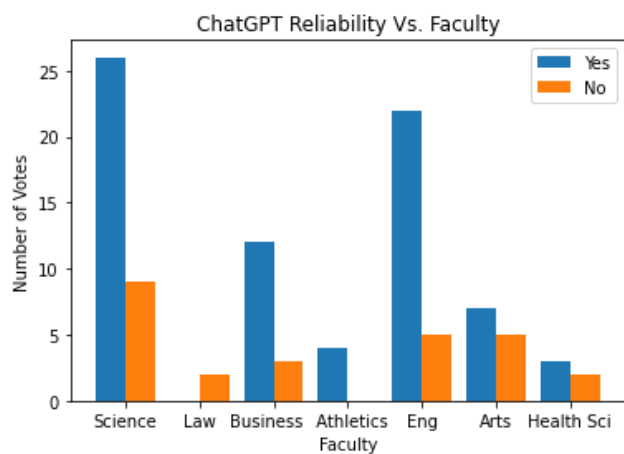


Figure 6: Graph showing individuals in academia in various faculties compared to if ChatGPT is reliable.

Discussion

The graphs created from the data in the survey provide interesting information about people's perceptions on ChatGPT. Figure 1 demonstrates that faculties which require more writing and opinion based analysis (Faculties of Arts, Health Sciences, Law, and Business) haven't used ChatGPT while faculties that require calculations and fact based analysis (Faculties of Science and Engineering) have used ChatGPT. Furthermore, figure 2 shows that the higher the GPA of the person, the likelier they are to believe that the use of ChatGPT will increase their GPA, which indicates that individuals with higher GPAs use ChatGPT to benefit themselves. Moreover, analyzing figure 3 shows that most individuals believe ChatGPT to be considered plagiarism depending on the situation it's used for. However, figure 4 dives deeper showing in which situations it's acceptable to use ChatGPT according to individuals in academia. With the majority agreeing that ChatGPT should be allowed for learning purposes and generating ideas for tasks. However, figure 5 contradicts this data as the majority of the votes suggest that ChatGPT will negatively impact future generations. Moreover, figure 6 shows that those involved in academia strongly believe that ChatGPT provides accurate information despite OpenAI acknowledging that ChatGPT occasionally provides incorrect information. Thus,

the general consensus about ChatGPT according to those involved in academia is that ChatGPT affects each faculty to a different degree, however, it benefits everyone to a certain extent.

Conclusion

ChatGPT has taken the contemporary education scene by storm. Its revolutionary development has resulted in greater learning assistance for students. However, the availability and convenience of the chatbot has educators and educational institutions questioning its future potential and role in shaping the future of education. Rest assured, there are many who believe that ChatGPT will change and impact the future of education positively. The director of Rochester's Writing, Speaking, and Argument Program, Deborah Rossen-Knill, believes that "ChatGPT and other generative AI can help students learn things that aren't always easy to teach." She contends that "It's amazing to have this technology do in seconds what it takes many of us hours to do," regarding chatbots being helpful to an audience which consists of both professors and students (Mandelaro, 2023). In response to the academic honesty concerns, many professors in Rochester have decided to either integrate the technology into their assignments or incorporate its weaknesses. Jonathan Herington, an assistant professor in the Department of Philosophy in Rochester, decided to use ChatGPT as a part of his assignment when he asked students to cowrite an essay with the chatbot, whereas Adam Purtee, an assistant professor of computer science, has returned to in-class quizzes as he states that "I want the student to know this information. The best way to do that is to get them alone in a room with a pencil and see what happens," (Mandelaro, 2023). Institutions like Rochester are beginning to open up and incorporate ChatGPT as the professors believe that it is beneficial for the future of education for their students. Thus, ChatGPT is something that should be incorporated in education, however, it should be used wisely.

Future Work

The data collection and census procedure for this project ran smoothly, but there are numerous ways to improve the process in the future. To begin with, the demographic was primarily made up of individuals in engineering and science. As a result, the data was skewed in support of ChatGPT because engineering and science faculty individuals use it more frequently than other majors. Other ways of reaching the demographic can be used in the future to improve on this problem. For example, posting survey information on posters and having them posted across campus bulletin boards could be an effective way to reach more people in various disciplines. In addition, the generalization of the questions on the census resulted in clusters of data that were too similar. To improve on this in the future, the questions could be more comprehensive. This would allow for less clustered data and more outcomes to be drawn from the data. In conclusion, these are the minor improvements that can be made to improve the quality of the project for the future.

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