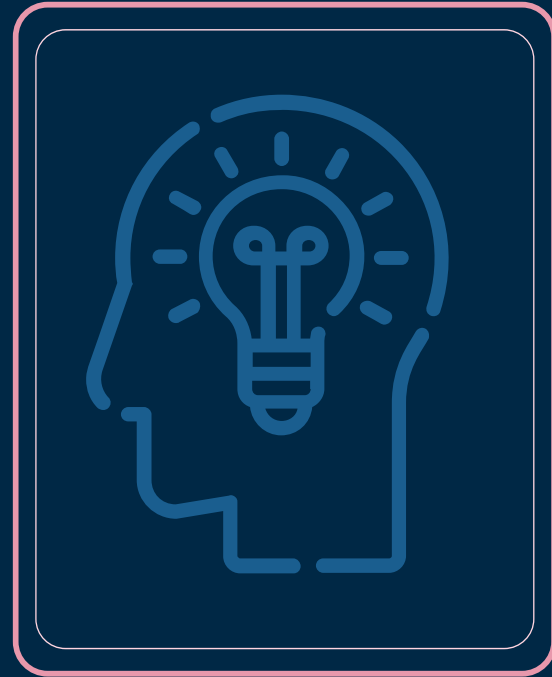# CHATGPTS IMPACT ON ACADEMIA

By: Jeel Vekaria, Munta Islam, Vincent Huynh, Manav Parmar

1

WHAT IS CHATGPT?

❖ ChatGPT is an advanced language model developed by **OpenAI**

❖ Its purpose is to push the limits of what a **powerful AI system** can achieve

❖ It can provide answers to any questions the users may have with a high accuracy

❖ ChatGPT uses language patterns to analyze the context of a prompt and generate a fitting response

The Main Issue

- ❖ Some students use ChatGPT for **getting help** with homework
- ❖ While some students **use it to cheat** on assignments
- ❖ While ChatGPT can be a helpful tool, its use in cheating raises ethical concerns on whether ChatGPT is fair use when it comes to school work
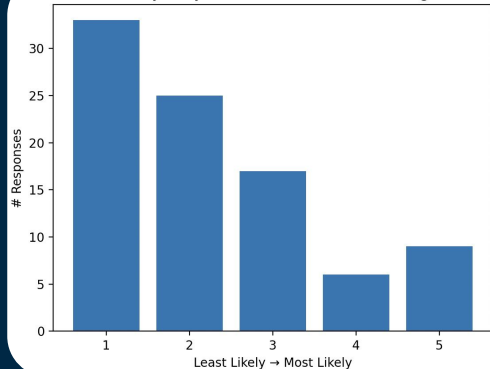
Methodology

❖ To collect data from students to gain their insights on whether ChatGPT is fair use in academia or not was conducted through surveys:

➢ **Survey method**: This study used a survey, an efficient method for gathering large amounts of data quickly

➢ **Scope of questions:** The survey focused on ChatGPT's academic use and students' opinions, providing insight into usage and perception

➢ **Effectiveness**: A survey was an effective method for gathering information on ChatGPT in academia, allowing for efficient data collection and standardized comparisons
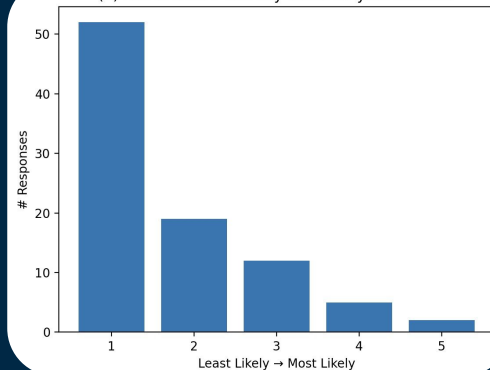
General Findings

❖ Approximately **36%** of participants are **willing to use ChatGPT** for academic purposes (Figure 5 in slide 8)

❖ About **35%** of respondents **lack interest in using ChatGPT** in their academic work (Figure 1)

❖ Around **52%** claimed that ChatGPT **had not impacted their studies** in any noticeable way (Figure 2).

❖ ChatGPT has the potential to influence a student's academic work, considering the level of interest and popularity it has collected so far
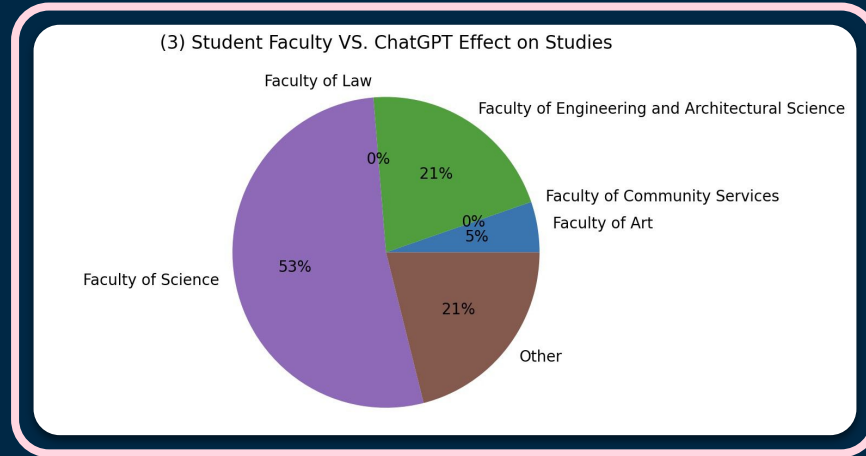

(1) How likely are you to use ChatGPT on an assignment?

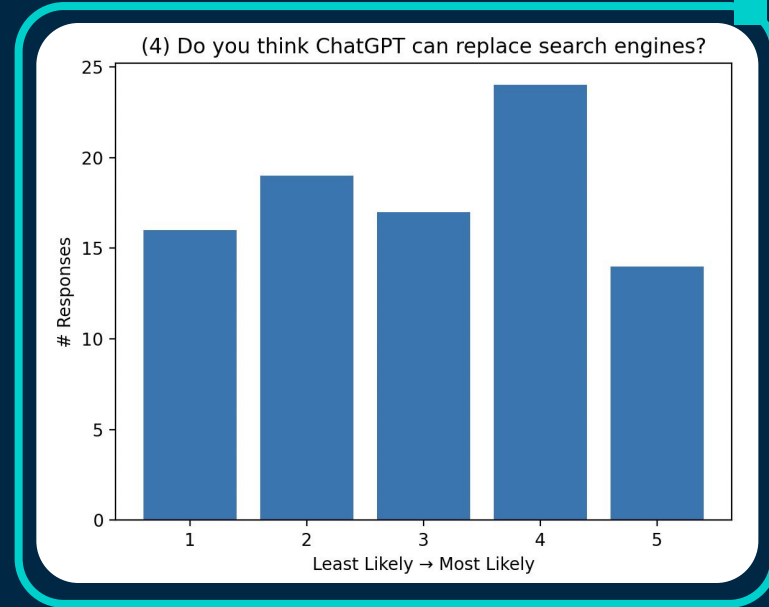(2) Has ChatGPT had any affect on your studies?

5

ChatGPT's Effect on Students

(3) Student Faculty VS. ChatGPT Effect on Studies

- Faculty of Law — 0%
- Faculty of Engineering and Architectural Science — 21%
- Faculty of Community Services — 0%
- Faculty of Art — 5%
- Other — 21%
- Faculty of Science — 53%

❖ The impact of ChatGPT seems to be associated with its effect on students and their faculties

❖ Students enrolled in technology-related programs have experienced **improvements in their academic performance** with the assistance of ChatGPT (Figure 3)

❖ Conversely, students in non-technical disciplines reported **minimal to no effects** on their academic outcomes attributed to ChatGPT
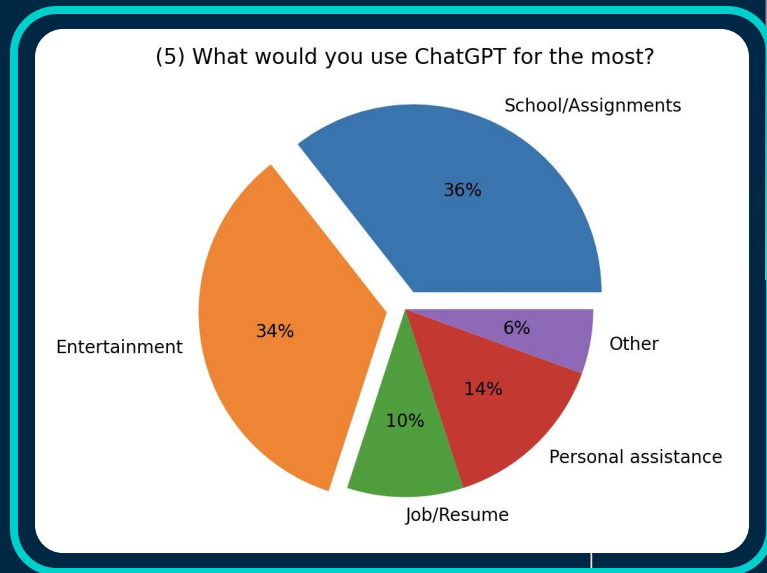
6

ChatGPT VS. Search Engines

- ❖ Figure 4 shows that students are somewhat doubtful of ChatGPT compared to Google or Bing

- ❖ Despite this doubtfulness, the **majority of students still view ChatGPT as a viable alternative**

- ❖ ChatGPT may require time to gain wider acceptance as people become more familiar with its features and functions

- ❖ Overall, ChatGPT holds potential as an alternative to traditional search engines in academic settings

(4) Do you think ChatGPT can replace search engines?

ChatGPT's Public Adoption

- ❖ ChatGPT's current usage is primarily limited to **academic work and leisure activities** (Figure 5)

- ❖ Its mainstream popularity is still limited, and its adoption by the general population is ongoing

- ❖ Despite this, there is potential for ChatGPT to experience a surge in popularity and become a prominent search engine for the general public in the future

- ❖ It remains to be seen how ChatGPT's development will progress and whether it will become widely accepted as a search engine for general use

(5) What would you use ChatGPT for the most?

School/Assignments 36%
Other 6%
Personal assistance 14%
Job/Resume 10%
Entertainment 34%

Improving The Survey

❖ Surveys are subject to potential sources of bias, such as respondent errors and sampling errors

❖ These factors may impact the accuracy and reliability of the data collected

❖ To gain a more comprehensive understanding of ChatGPT's impact on academia, it is recommended to **survey a broader demographic**

❖ A diverse cohort of students across various programs and schools would provide more precise and reliable results

Benefits

❖ **Quick access to information**: ChatGPT provides fast and easy answers to students' questions, saving them time and effort in obtaining information on a wide range of topics

❖ **Customized responses**: ChatGPT can learn from prior conversations and tailor its responses to individual needs, providing more personalized and accurate answers.

❖ **Enhanced efficiency**: ChatGPT can automate routine tasks like grading, providing feedback, and answering common student questions, freeing up time for teachers and students to focus on other tasks

❖ **Improved learning outcomes**: ChatGPT's personalized and efficient responses can lead to better understanding of course materials, resulting in improved academic performance and learning outcomes
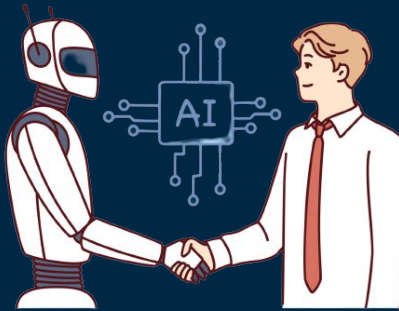
Limitations

- **Limited accuracy**: ChatGPT's responses may be inaccurate or incomplete at times, especially for information that has changed since its knowledge cutoff date (2021)
- **Risk of unreliable information**: ChatGPT's limitations may pose a risk of unreliable information, which could be problematic in certain contexts where accuracy is critical
- **Technical limitations**: ChatGPT may have technical limitations, such as its inability to process multimedia content like images and videos, which may limit its usefulness in certain contexts
- **Lack of human interaction**: ChatGPT's lack of human interaction may limit its ability to understand context and provide reliable responses to complex questions

Future Potential

❖ ChatGPT has great potential for individualized learning, offering detailed explanations, comments, and resources to support each student's unique requirements

❖ ChatGPT could function as a virtual tutor, providing in-depth assistance to students outside of the classroom

❖ The cost-effective nature of ChatGPT makes it an attractive option for students who may not be able to afford traditional tutoring

❖ ChatGPT can also be utilized as a language learning tool, allowing students to practice their language skills through interactive exercises and chats in multiple languages

Conclusion

❖ ChatGPT is a valuable educational resource with quick responses and the ability to recall previous conversations

❖ Based on the data that was collected, ChatGPT has a positive impact on academic performance, especially for those in technology-related fields, according to survey results

❖ ChatGPT may evolve into a virtual tutor with more detailed responses and be utilized as a language learning tool for international students as technology advances

❖ It's important to recognize that ChatGPT is a supplement to traditional classroom settings and does not replace the role of teachers or the social and emotional learning opportunities they provide

End of Presentation