

# ChatGPT in Academia

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## — INTRODUCTION

- What is ChatGPT:
  - Created by OpenAI on November 30, 2022 (OpenAI, n.d.; Ash, 2023)
  - Self learning AI
  - Utilizes a method called, "Reinforcement Learning from Human Feedback" (OpenAI, n.d.)
    - Learns from corrections provided to responses generated by ChatGPT (OpenAI, n.d.)



## — INTRODUCTION

- Those in academia now have access to a powerful AI tool to complete:
  - Labs, assignments, problem sets and many other types of academic work.
- Raises questions of academic integrity among educators and educational institutions



# WE CONDUCTED A SURVEY



## WHAT WE DID FOR OUR SURVEY

- Asked individuals in academia questions about themselves and questions about their view of ChatGPT
- Survey accumulated over 100 responses
- Method used to spread the survey around was in person and online networking



# OUR DATA AND OUTCOMES



## RESULTS

- Faculties that require more writing and opinion based analysis haven't used ChatGPT
  - Faculty of Arts, Health Sciences, Law, and Business
- Faculties that require calculations and fact based analysis have used ChatGPT
  - Faculty of Science and Engineering

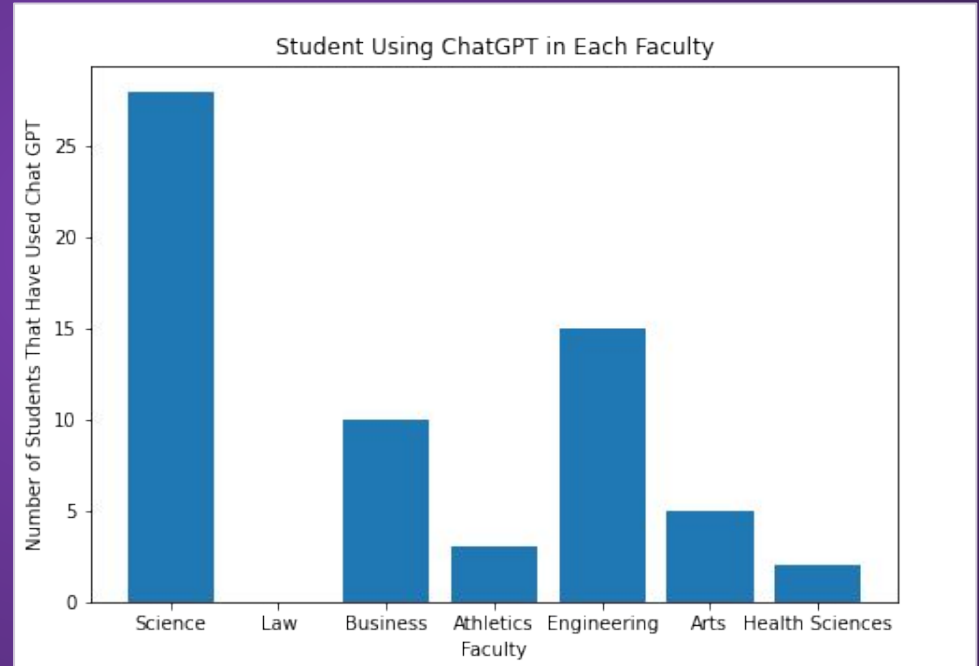


Figure 1: Graph of academia individuals who have used ChatGPT in their Faculty.

## RESULTS

- The higher the GPA of the individual, the more likely they are to think that the use of ChatGPT will increase their current GPA
- Indicator of higher GPA using ChatGPT to their benefit

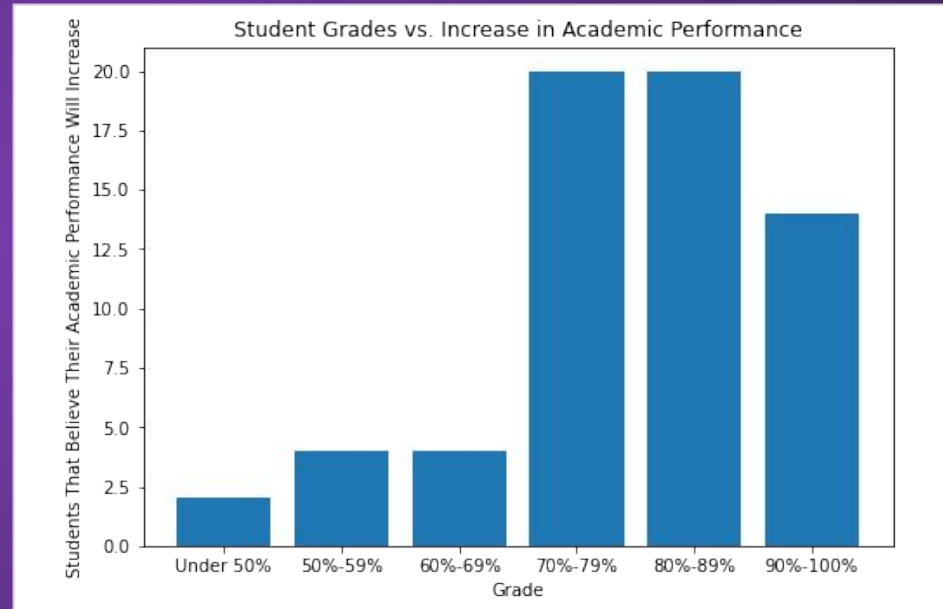


Figure 2: Graph of academia individuals' GPA compared to their opinions on ChatGPT increasing their overall academic performance.



## RESULTS

- Figure 3 shows most individuals agree ChatGPT is plagiarism based on context
- Figure 4 shows which situations it's acceptable to use ChatGPT
  - Majority of people agree to use ChatGPT for learning and generating ideas
- Figure 5 shows the majority of the votes believe ChatGPT will negatively impact future generations

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

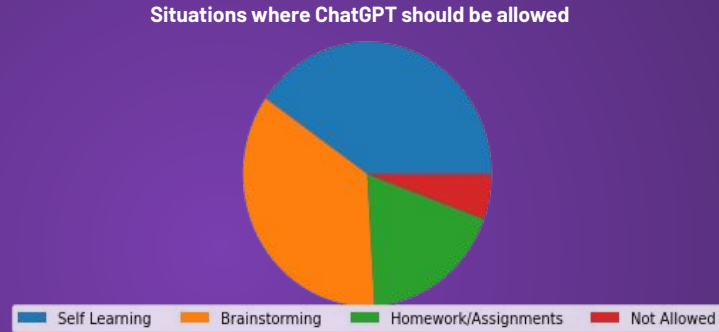
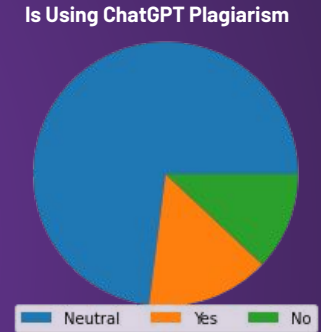


Figure 3: Individuals in academia's opinions on whether ChatGPT is considered plagiarism.



**Does ChatGPT Negatively impact newer generations**

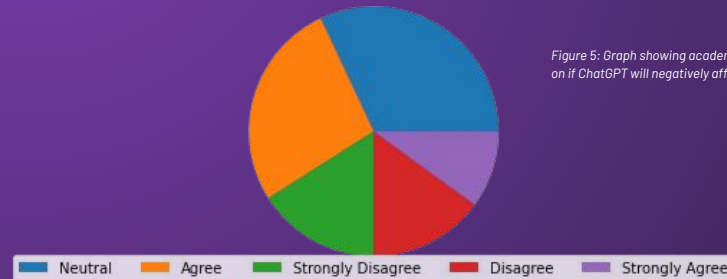


Figure 5: Graph showing academia individuals' opinion on if ChatGPT will negatively affect future generations.

## — RESULTS

- Figure 6 shows those involved in academia strongly believe ChatGPT provides accurate information
- Despite OpenAI claiming ChatGPT occasionally provides inaccurate information

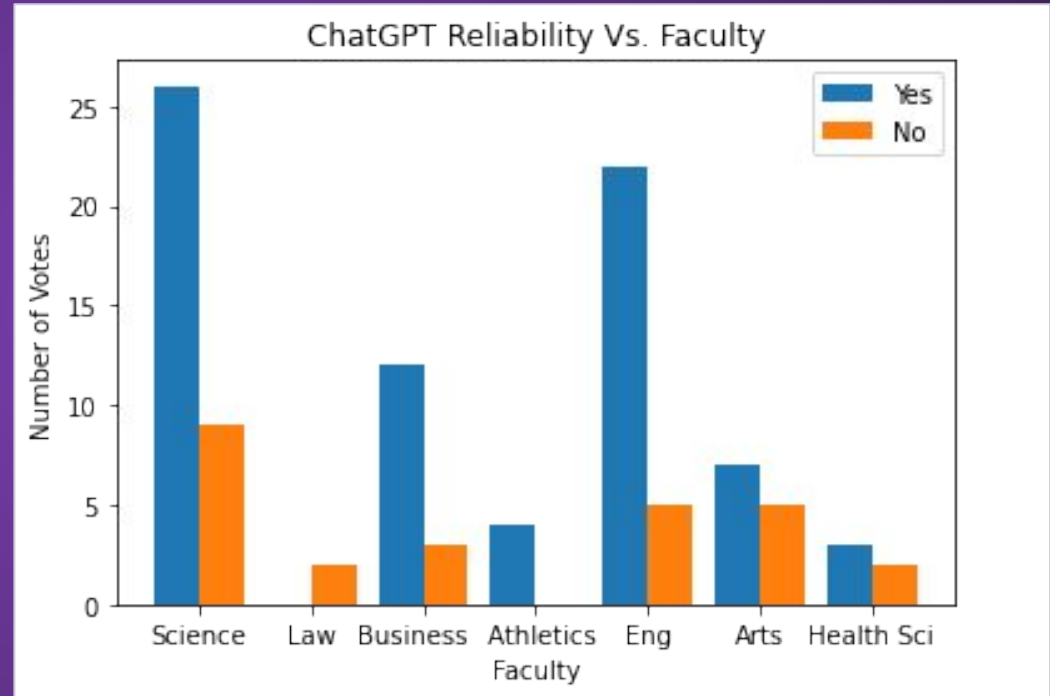


Figure 6: Graph showing individuals in academia in various faculties about ChatGPT's reliability.

# — IMPROVEMENTS TO THE CENSUS PROCESS

## Challenges & Setbacks

- Demographic was primarily made up of individuals in engineering and science
- Data was skewed in support of ChatGPT due to demographic bias
- Generalization of questions on the census resulted in clusters of data that were too similar

## Improvements

- Reach wider & more diverse demographic
  - Posting survey information on posters across campus bulletin boards
- Create questions that are more comprehensive
  - Would allow for less clustered data and more outcomes to be drawn from the data

## Conclusion

- Data collection and census procedure for this project ran smoothly
- Improvements will generate more diverse & informative data and draw better conclusions

## — DISCUSSING THE FUTURE IMPACT

- Development of ChatGPT resulted in greater learning assistance
- Availability and ease of use of the chatbot has educators and institutions questioning its future in education
- Many believe that ChatGPT will change and impact the future of education in a positive way

Sure, here's an example of a simple database schema that you can use to store and retrieve data:

```
sql Copy code

CREATE TABLE users (
  id SERIAL PRIMARY KEY,
  name VARCHAR(50) NOT NULL,
  email VARCHAR(100) UNIQUE NOT NULL,
  password VARCHAR(100) NOT NULL,
  created_at TIMESTAMP DEFAULT NOW()
);
```

This schema defines a table called `users` that has columns for `id`, `name`, `email`, `password`, and `created\_at`.

You can use this schema to create a database and then start adding and retrieving data using SQL queries. Here are some examples of how you might interact with this database:

To add a new user to the database:

```
sql Copy code

INSERT INTO users (name, email, password) VALUES ('John Smith', 'john@example.com', 'password');
```

To retrieve a list of all users:

```
sql Copy code

SELECT * FROM users;
```

To retrieve a specific user by their email address:

```
sql Copy code

SELECT * FROM users WHERE email = 'john@example.com';
```

# WHAT THE FACULTY AT UNIVERSITY OF ROCHESTER HAD TO SAY



**Deborah Rossen-Knill**

Director of Rochester's Writing, Speaking, and Argument Program

"ChatGPT and other generative AI can help students learn things that aren't always easy to teach."

She also contends that "It's amazing to have this technology do in seconds what it takes many of us hours to do," (Mandelaro, 2023).



**Jonathan Herington**

Assistant professor in the Department of Philosophy

Jonathan Herington utilized ChatGPT as a part of his assignment where he asked students to co write an essay with the chatbot, (Mandelaro, 2023).



**Adam Purtee**

Assistant professor of computer science

After returning to in-class quizzes he says "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." Incorporating the weaknesses of ChatGPT, (Mandelaro, 2023).





## — THE VERDICT

- Institutions like Rochester are beginning to open up and incorporate ChatGPT as the professors believe it is beneficial for the future of education
- Survey results shows a positive outlook on ChatGPT in academia
- ChatGPT should be allowed for universities to use