



# Assessing ChatGPT's Impact on Learning

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## Abstract

ChatGPT, a conversational AI software developed by OpenAI, has recently taken the academic world by storm with its ability to generate sophisticated responses with input given by the user. OpenAI's GPT3.5 and GPT4 models heavily call into question current teaching methods and are forcing schools to rethink how curriculums are structured. This research aims to assess how the accessibility of software like ChatGPT affects learning, for both students and educators going forward in the Marist Community and additionally assess the sentiment across campus regarding large language models such as ChatGPT being available for public use.

## Root Issues

Before engaging in polling the Marist campus for analysis, Faculty Interviews and Literature Review were conducted in order to gain a better understanding of how exactly learning may be affected and why:

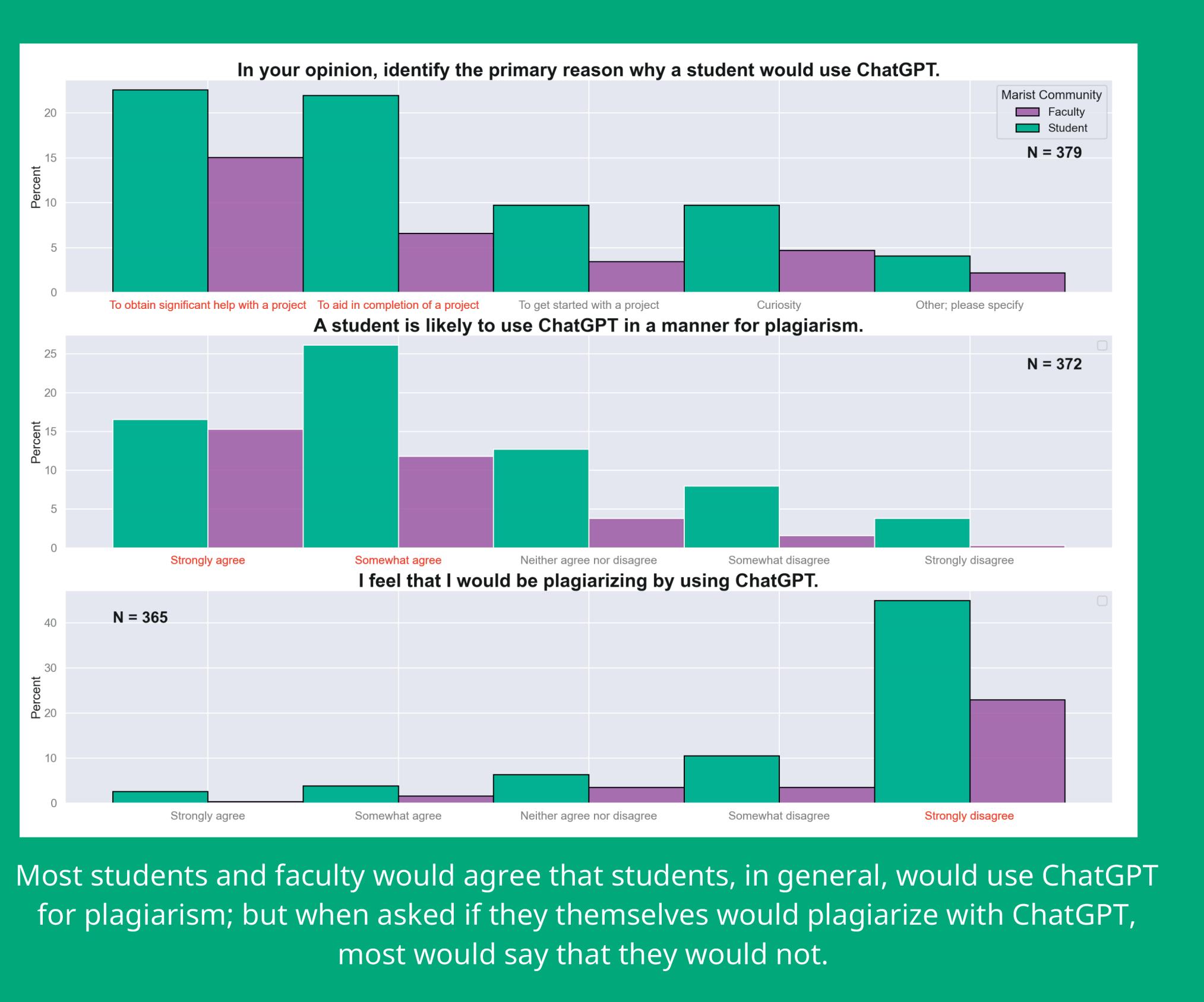
- Professor Eitel Lauria from the School of Computer Science & Math says that these problems that we are seeing now are rooted in AI Alignment. In a paper written by the National Bureau of Economic Research, economists go deeper into the topic of AI Alignment and define two types of alignment: direct and social alignment. Direct alignment has to do with a system being aligned with the user, while social alignment deals with the broader goals of society.
- Dr. Karen Schrier, an Emerging Media professor in the School of Communications & Arts, believes that we have to emphasize data literacy and be "arbiters of the information shown to us" so that we may use these technologies as a tool, ethically and effectively.

## Polling

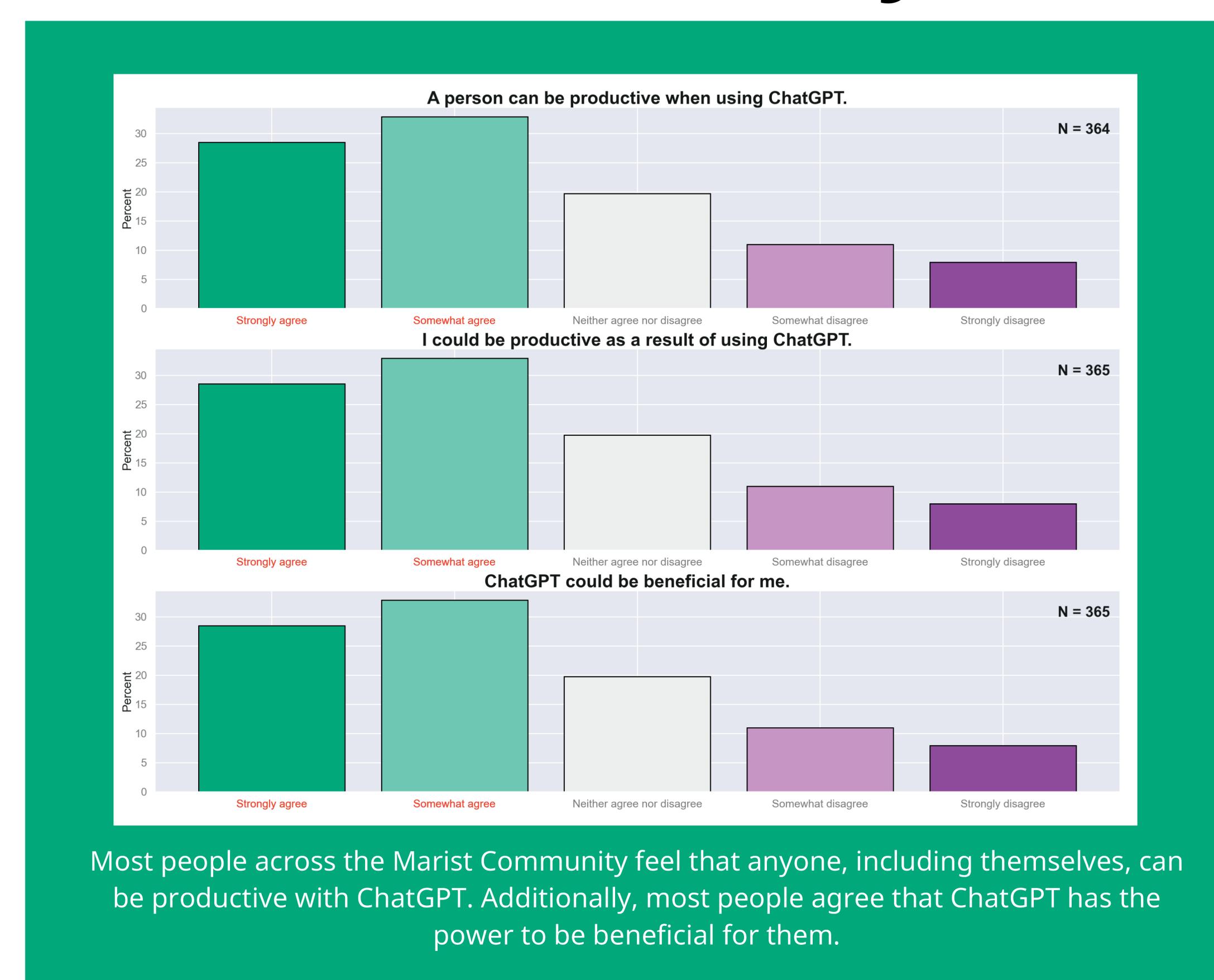
- We first composed a rough draft of our poll in which we aimed to mainly develop questions that were aimed to answer our research questions. This includes main sentiment questions, questions regarding ChatGPT use, and demographic information.
- We then sat with Marist Poll in order to refine our survey and make sure we concisely hit everything. This included making sure questions tackled the positives and negatives of the software and making sure that the poll flowed in such a way that information wasn't revealed to the person taking the poll early on in order to avoid bias in the data. In this stage, we also made the decision to include examples of output to further our understanding of data literacy across campus.
- Professor Eitel Lauria contributed to the sentiment analysis portion in which he gave us the idea of providing a write-in section for the poll and then conducting sentiment analysis using Vader Sentiment, a sentiment analysis Python package for social media data.

## ANALYSIS

### Plagiarism



### Productivity



### Emphasizing Data Literacy



### Sentiment Analysis



## Closing Thoughts

In order for a system to be properly aligned, the system needs to have a goal. In this instance, it is important to define which type of alignment we are dealing with when it comes to speaking about the world of academia (social or direct). In order for our school to be efficient in creating distinguished scholars, we need to properly assess how we want to use this software to maximize learning and more importantly, how to succeed without it. In becoming data literate, we use all of our knowledge to our advantage, not just the knowledge of a large language model. As shown through the analysis, this software is not going anywhere and has the power to either be very beneficial or very harmful. It is up to us as a community to decide what exactly our goals are to ethically and effectively use this type of software. These are questions that must be carefully considered and answered going forward.

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