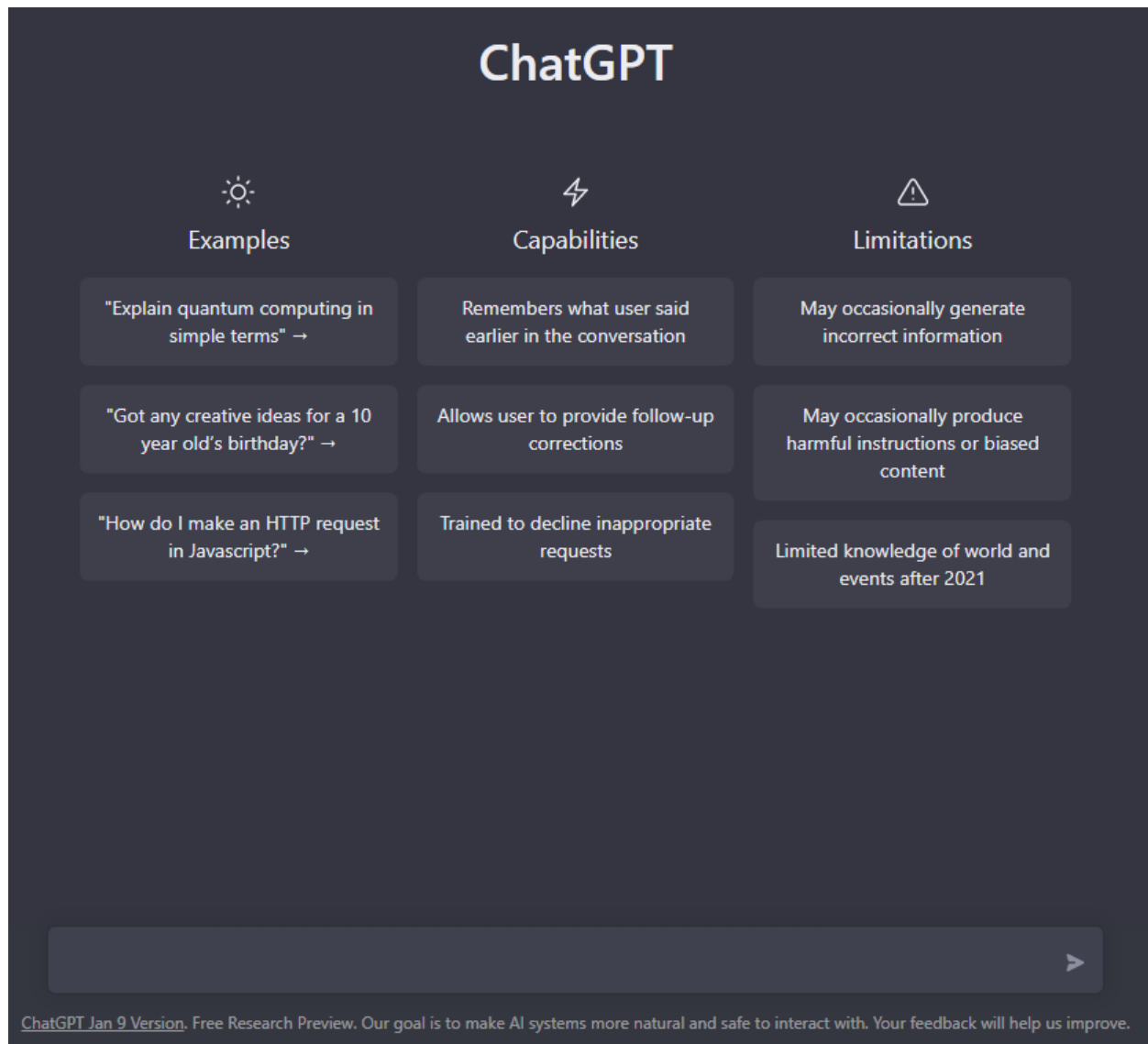




The new artificial intelligence program ChatGPT has taken the Internet by storm, amassing over 1 million uses in just 5 days. To put that in comparison it took Facebook 10 months and Instagram 2.5 months to reach 1 million users. ChatGPT as the name implies, is a chatbot that allows you to have human like conversations. It will answer your questions, compose email messages, write essays, and even write software programs. But does ChatGPT have a place in academia? Here is an overview of ChatGPT and its capabilities.

ChatGPT is a large language model developed by OpenAI, a research company founded in 2015 by Elon Musk, Sam Altman, Greg Brockman, Ilya Sutskever, and Wojciech Zaremba. The company's mission is to develop artificial intelligence in a way that is safe and beneficial for humanity.

ChatGPT was first introduced in 2018 as an extension of the GPT (Generative Pre-trained Transformer) model, which was first introduced in 2017. GPT was trained on a massive amount of text data and was able to generate human-like text responses to a wide range of prompts. However, ChatGPT was trained

on an even larger amount of text data and was able to generate even more human-like responses. This makes ChatGPT one of the most powerful language models to date (Brown, 2020).

In 2019, OpenAI released ChatGPT-2, an improved version of the model. It was trained on a dataset of over 570GB of text, which is more than 10 times the size of the dataset used to train GPT-1. As a result, ChatGPT-2 has been able to generate even more human-like responses, making it even more powerful than its predecessor (Brown, et al., 2020).

In 2020, OpenAI released a more powerful version of the model called GPT-3. This model was trained on a dataset of over 570GB of text, which is more than 10 times the size of the dataset used to train GPT-2. GPT-3 has been trained on a diverse set of text data which allows it to generate human-like responses on a wide range of topics. This makes GPT-3 one of the most powerful language models to date (Brown, et al., 2020).

Since its introduction, ChatGPT has been used in a wide range of applications, including natural language processing (NLP) tasks such as language translation, text summarization, and question answering. It has also been used in chatbots, automated writing, and text completion. ChatGPT has been widely adopted by researchers, developers, and businesses, thanks to its ability to understand natural language and generate human-like text (Chung, et al., 2019).

One of the ways that ChatGPT can be used by college professors is as a tool for teaching and learning. For example, ChatGPT can be used to generate practice questions and answers for students to study, or to generate summaries of key concepts for students who are struggling to understand a topic. Additionally, ChatGPT can be used to generate automated feedback for students, which can help educators to provide more personalized and timely feedback to students.

Another way that ChatGPT can be used by college professors is as a tool for research. For example, ChatGPT can be used to analyze large amounts of text data, such as social media posts, news articles, and research papers. This can help researchers to identify patterns, trends, and insights that would be difficult to detect manually. Additionally, ChatGPT can be used to generate hypotheses, which can save time and effort for researchers.

However, it's important to note that while ChatGPT and other large language models have many potential benefits for education, they also raise significant ethical concerns. For example, the use of ChatGPT and other large language models in education could perpetuate existing biases and reinforce stereotypes. Additionally, the use of ChatGPT and other large language models in education could lead to a loss of critical thinking skills and creativity among students. Therefore, it's important for educators to use ChatGPT and other large language models responsibly and with caution, and to consider the ethical implications of their use.

One of the concerns with ChatGPT and other large language models like it, is its potential use for cheating by students. One of the main capabilities of ChatGPT is its ability to generate responses to a wide range of prompts. This can be beneficial for students who are struggling to understand a concept or write an essay, but it can also be used for malicious intent. For example, students could use ChatGPT to generate responses to test questions or essays, which would allow them to cheat on exams and assignments. Additionally, ChatGPT's ability to generate text that is similar to human-written text can make it difficult to detect when a student is using the model to cheat. The generated text may not be

identical to the text produced by a human, but it may be similar enough to be difficult to distinguish. This can make it challenging for educators to detect and prevent cheating. Furthermore, ChatGPT's ability to understand natural language can also be used for cheating in language-based exams, such as foreign language exams. Students could use the model to translate exam questions and answers, which would allow them to cheat on the exam (Amershi, 2020).

There are several ways that educators can address the potential use of ChatGPT for cheating. One approach is to use plagiarism detection software to identify text that has been generated by a language model. This can be done by comparing the text in question to a database of known language model-generated text. Another approach is to use proctoring software to monitor students during exams and assignments, which can detect any suspicious behavior. Additionally, educators can educate students about the potential consequences of using ChatGPT or other language models for cheating. This can include the possibility of failing the exam or assignment, as well as the potential for disciplinary action. It is important to raise awareness among students about the potential misuse of technology and the consequences of cheating.

Another approach is to incorporate anti-plagiarism techniques such as Turnitin, Grammarly, and plagiarism checker software in the assessment process. These tools are designed to identify plagiarism and can help educators to detect if a student has used ChatGPT or any other language model to cheat.

Educators can also consider using more open-ended questions in exams and assignments. This can make it more difficult for students to use ChatGPT or other language models to cheat as the model will have a hard time to generate a unique and authentic answer.

If you are wondering about the writing ability of ChatGPT, this article up until now was written by ChatGPT (except for the first paragraph). ChatGPT also added the citations and created the reference list at the end of this article.

In addition to the methods suggested by ChatGPT to prevent and detect cheating by students, there is a new AI system to help you determine if something was written by ChatGPT. [GPTZero.me](https://gptzero.me) was recently introduced to help educators detect material that was written with ChatGPT and other AIs. I tested GPTZero by uploading a short speech I asked ChatGPT to write. As you can see from the result below, GPTZero identified the speech as likely to have been written by AI.

Your text is likely to be written entirely by AI

The nature of AI-generated content is changing constantly. While we build more robust models for GPTZero, we recommend that educators take these results as one of many pieces in a holistic assessment of student work.

Ladies and Gentlemen,

I stand before you today, humbled and grateful for the opportunity to seek your continued support as your Prime Minister.

In these past years, we have faced immense challenges and together we have emerged stronger.

Our country has been tested, but our spirit remains unbroken.

I have dedicated my life to serving our nation, and I promise to continue to do so with the same unwavering commitment.

I have always believed in putting the country first, and I will always do so, no matter the cost.

Together, we have defeated the Nazi regime and secured our place as a leader among nations.

We have built a stronger economy and invested in the future of our people.

We have stood up for what is right, both at home and abroad.

I ask for your support, not just for me, but for the future of our great nation.

Let us continue to build a brighter future for all of our citizens.

Let us continue to stand together, strong and united, as we face whatever challenges may come our way.

Thank you, and God bless the United Kingdom

So how can ChatGPT help you? Recently a co-worker discovered that ChatGPT can write a very good course description that may provide inspiration for your own course descriptions. ChatGPT was asked “write a course description for Policing and the Constitution.” The response was:

Policing and the Constitution is a course that examines the role of law enforcement in a democratic society. It covers the constitutional and legal foundations of policing, including the Fourth, Fifth, and Fourteenth Amendments. The course also explores the relationship between policing and civil rights, including issues such as racial profiling, use of force, and police accountability. The course will use case studies and current events to help students understand the complex legal and policy issues surrounding policing in the United States. The course will be taught in a seminar format, with active participation and discussion encouraged.

ChatGPT can also assist with literature reviews and annotated bibliographies. I asked ChatGPT to summarize an article I co-authored, titled “Examining the correlates of failed DRDOS attacks” by submitting the written article with the command, summarize this research article. The response was:

This study aims to understand stresser service operations by identifying a sample of stresser clients through a unique sampling methodology. The researchers used a cracked database of stresser customers that was posted online, containing 51,909 unique email addresses, to invite them to participate in an anonymous online survey between November 27 and 29, 2016. The survey consisted of 22 multiple-choice questions and one comment box for follow-up requests. The questions related to the use of stressers and booters, including the respondent's skill level, type of payment used, attack protocols used, targets of attacks, motivation for usage, and demographics. The survey closed on December 30, 2016. 5,226 emails were verified as received and opened, and 821 individuals completed the survey, which is a substantial drop-off in respondents. The study found that majority of respondents (75%) claimed the attack they used was functional, and the researchers examined the factors associated with failed attacks.

While I do not recommend you use ChatGPT to grade your students’ paper, ChatGPT will evaluate and grade a paper. I asked ChatGPT to evaluate a 2000-word paper on the Financial Services Critical Infrastructure Sector. The response was:

This research paper receives a grade of 80 out of 100 points. The paper presents a clear and well-organized overview of the importance of the financial services sector as a part of America's Critical Infrastructure and the potential consequences of a disruption in its services. The writer also provides specific examples of the types of organizations that comprise the sector and the shared vision statement for improving resilience. The author also provides well-supported argument about the current risk of cyber-attacks in the sector and the measures that have been taken to address them.

However, the paper could be stronger if the author provided more analysis of the specific challenges and risks faced by the financial services sector and how they differ from other critical infrastructure sectors. Additionally, the paper could benefit from more detail about the "Cybersecurity and Infrastructure Security Agency Act of 2018" and the role of CSIA in protecting the financial services sector. The paper also could benefit from a more formal introduction and

conclusion. Overall, the paper is informative and well-written, but could benefit from additional analysis and structure.

In addition to writing and evaluating papers there are many other tasks ChatGPT can do, and developers are quickly writing plugins for browsers and applications to use ChatGPT. A few examples are ChatGPT can provide text summaries of YouTube video transcripts, respond to email messages and tweets and solve written math questions such as:

There are 240 dogs signed up for a dog show. There are 130 more small dogs than large dogs. 14 small dogs failed to show up. 9 large dogs also failed to show up. 20 large dogs came unannounced. What is the ratio of small dogs to large dogs that made it to the show?



We can start solving the problem by using algebra. Let x be the number of large dogs signed up for the dog show. Then, according to the information given, the number of small dogs is $x + 130$.

We also know that 14 small dogs failed to show up and 9 large dogs failed to show up. So, the number of small dogs that made it to the show is $x + 130 - 14 = x + 116$. And the number of large dogs that made it to the show is $x - 9$.

Additionally, we know that 20 large dogs came unannounced, so the number of large dogs that made it to the show is $x - 9 + 20 = x + 11$.

So, the total number of dogs that made it to the show is $(x + 116) + (x + 11) = 2x + 127$

And we know that there are 240 dogs signed up for the show, so we can set up an equation:
 $240 = 2x + 127$

Solving for x , we get $x = 56$

So, there were 56 large dogs signed up for the show. And since there were 130 more small dogs than large dogs, there were $56 + 130 = 186$ small dogs signed up for the show.

To find the ratio of small dogs to large dogs that made it to the show, we divide the number of small dogs that made it to the show by the number of large dogs that made it to the show:

$$186/(56+11) = 186/67 = 2.8:1$$

So, the ratio of small dogs to large dogs that made it to the show is 2.8:1. which means there were 2.8 small dogs for every 1 large dog.

While there is an obvious concern that students can use ChatGPT to do their homework or cheat on exams, you can see by this answer ChatGPT can also be used by students and teachers to help explain math problems to students. ChatGPT can also help students by explaining complex topics, reviewing their math work, and providing a “peer” review of written works with suggestions for improvement.

ChatGPT has many more uses, such as writing computer programs, reviewing computer programs for errors, reviewing resumes and cover letters, translating written works, or simply telling you a joke.

To try ChatGPT for yourself, sign up for an account at <https://chat.openai.com/> and have fun. But you may have to wait a few days to receive an account because the response to ChatGPT has been overwhelming and they are still catching up with account creations.

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