# ChatGPT: Understanding and Utilizing the Power of Generative Language Models

An Overview of the capabilities and limitations of GPT, with a focus on its use in education and personalized learning.

#### **Questions for chatGPT**

On a Pink Post-It please write a general question aimed at a student (could be subject specific, pastoral etc.) Be as detailed as you like.

On an Orange Post-It please write a question or concern as a professional about AI in any context you like.

#### What is ChatGPT and how does it work?

GPT stands for "Generative Pre-trained Transformer."

Transformer is a type of neural network architecture that uses attention mechanisms to weigh the importance of different parts of the input text when making predictions about the next word.

write with transformer



Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.

-- Bill Gates

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# Optimizing ChatGPT: The Importance of Domain-Specific Knowledge and Prompts

Helps the model understand the context of the task at hand and generate more accurate and relevant responses.

ChatGPT can be fine-tuned to specific domains and tasks.

#### How to address bias in GPT?

Be aware of bias in the model as it can perpetuate societal biases present in the training data.

Use diverse and unbiased training data and fine-tune the model on specific tasks.

Interpreting the results with caution.

# ChatGPT: a useful tool with potential limitations

Can generate text that is coherent, fluent and human-like.

Can make mistakes or generate text that is not accurate or relevant.

Can be biased, reflecting the biases present in the training data.

# Using ChatGPT in education: best practices

Use ChatGPT responsibly and educate students on its limitations and potential biases.

Encourage students to critically evaluate the information provided by the model and use it as a learning aid rather than a substitute for human teaching.



Technology is nothing. What's important is that you have a faith in people, that they're basically good and smart, and if you give them tools, they'll do wonderful things with them.

-- Steve Jobs

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## **ChatGPT vs Google search results**

ChatGPT can generate more human-like responses than google search results.

ChatGPT can be fine-tuned to specific domains and tasks.

ChatGPT is not a replacement for human experts and information provided should be verified.

#### What will the future look like?

Before ChatGPT there was GPT-1 (117M), GPT-2 (1.2B) and GPT-3 (175B)

ChatGPT is a step inbetween GPT-3 and GPT-4

GPT-4 will be trained on something greater than 100 Trillion Parameters

#### Will ChatGPT and similar tools be free forever?

Most likely not.

OpenAl and others do not stand to gain much by offering this for free for the long run.

OpenAl are running the 'Silicon Valley business model' right now. Recently they have introduced a freemium model \$20US for premium access.

### How to get started in ChatGPT

- 1. Delete any cookies from your browser for openai
- 2. Connect to a VPN (not via school network)
- 3. Create an account (may be best not to use google single sign on through a VPN)
- 4. Use a number from another country for SMS confirmation
- 5. log in and get started

#### Other tools

- <u>write with Transformer</u> a fun experiment
- <u>lex</u> potentially a more useful writing tool
- <u>yippity</u> create topic quizzes from notes
- YouChat similar to ChatGPT and cites sources
- Writesonic aware of current events, has 'personalities'
- Socratic an app to help students with problems
- OpenAl text-classifier is this text likely to have been written by ChatGPT?

# Yes, this looks useful for me... but what about Students using it?

We can't avoid the use of AI tools, it's almost inevitable.

Some students will inevitably use this tool to cheat. But there is not much point in having an arms race.

We are in the business of education, we will need to educate students on the reasons for and against using these tools ethically and responsibly.

#### Over to you...

- 1. What will you use this for?
- 2. How will you address this with your students?
- 3. How can you use this for postive impact?
- 4. How can negative impacts be minimised?