The good, the bad, the sensational of ChatGPT

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Introduction

The arrival of ChatGPT has created changing times and a radical rethinking of what it means to learn. This is literally a time that is going to go down in history of changing what we do going forward. Technology is available to provide us with personalised learning. This is really a once in a lifetime opportunity that we just can't mess up.

Much of the running of this new world of online education is being done by people who stand to make a great deal of money. Is this the future of education - the answer to the present funding crisis? Have traditional teaching methods outlived their usefulness? And how do students learn best? There are many sceptics.

What is Chat GPT?

OpenAI, is an organization that worked with **Microsoft** to develop ChatGPT. They receive $1 billion from Microsoft to develop this and it was so good that they've received another £10 billion to continue its development. In very basic terms, chat GPT is a chat bot. Many of you will be familiar with chatbots of all kinds, from when you are shopping online and receive support via a chat box or checking into a hotel with a virtual assistant who issues your room card. Although there's no physical form, it is like you are talking to someone that knows everything, in many ways. We can use ChatGPT to search for answers to our questions. Whereas **Google** searches provide a list of websites you visit to find out what it is

you're looking for; Chat GPT answers prompts and questions. This is similar to Google, but ChatGPT answers in a conversational nature in that it remembers your conversation and finds this information for us; gathering information from all the websites and brings it together to answer the question directly. You can then ask follow-on questions.

GPT stands for Generative Pre-Trained Transformer. The "G" - Generative means it generates something, it produces and creates something. There are many generative AI programs, including ones used in healthcare; also ones that create images like [DALLE.E](#) and [Deep Dream](#).

Pre-trained means it's been pre-trained by being provided with a large amount of information beforehand to be able to do what it does. It's trained on something and then is a transformer. Due to the connection with Microsoft, ChatGPT was trained on Bing with information up to 2021. They are working to extend this, but anything else that happened further on after 2021 might not yet be visible. It also used Wikipedia and other sources and also people were hired to look at what the output was and advise on any tweaks. By the time you read this article, ChatGPT would have evolved. It is changing fast every day.

Problems

Like any powerful technology, it can be used for very positive things and it can be used for harmful things. There are many problems associated with ChatGPT.

- **Cheating**

Students can ask Chat GPT to write papers making traditional methods of assessment ineffective.

- **Plagiarism**

While ChatGPT draws information from different websites, what it provides isn't actually found through plagiarism checkers. It learns from the information it retrieves and never writes the same response twice. There are some things that are coming along like classifiers, which will determine whether an AI has written the paper or if it was written by a human. Another way for us to check, is if the student hands in a paper that is covering things that has not been covered in the course or writes in a different way than they typically write. Although ChatGPT is improving all the time, it still is not good at referencing. You can ask it to cite and state the referencing style, but when you look at those citations, they are not correct. It cites people who are doing work in the area and makes up a citation. It can sound very plausible if you don't know about the subject.

- **Bias**

There are a lot of issues with bias in ChatGPT. It is not the technology that has the bias, it is the information that is put into the technology. ChatGPT is running on data from 2021 and all that human bias seen on Bing and in Wikipedia is going into ChatGPT. However, what the

algorithm for ChatGPT is trained to do is to look for certain key words and phrases to try and stop bias from happening. Bias is being addressed, but I doubt it will ever go away completely. There is also a major political bias from the values of those people that have developed ChatGPT that is appearing in the responses. Just like with any source, bias has to be considered. The algorithms are being tweaked all the time.

There are pitfalls that we need to watch for with any new technology. Socrates was greatly upset when the pencil was invented because people were not going to memorise things and use their brains in the way that he was familiar with. People said that the introduction of newspapers would be the end of conversation.

Positives

Let's take a look at some of the positives and how can ChatGPT be used in education.

- **Content creation**

ChatGPT can be used for content creation (ask it to create a lesson plan, a quiz, a game, a glossary).

- **Personalised learning**

Creating personalised and engaging learning can be achieved through ChatGPT (ask ChatGPT to create activities for visual-spatial students, ask ChatGPT to be a debate partner or use for different proficiency levels or interests etc). It can summarise reading into a simpler language and translate.

- **Tutoring and 24/7 support**

Students can access ChatGPT to ask big questions or ask for summaries or ask it for test questions in the form of a game.

- **Assessment**

We can look at ways for assessing through ChatGPT. Students can go back and forth asking ChatGPT what they got right, what they seem to be having problems with and it will literally tell the student where they need extra help. ChatCPT is useful to generate multiple responses which students can synthesise and critique.

- **Task automation**

Consider cutting your admin time by using chat GPT to do things that you don't really need to do. We can use ChatGPT as a Co-Pilot. We can ask it to write emails for us, eg. write an email to decline joining a committee.

- **Scholarly communications**

If you have a big report to read or a journal article, you can paste the whole article into ChatGPT and ask for a summary. If you are writing a journal article and it requests a different referencing style, you can put all your references into ChatGPT and ask it convert into a different style or if you are missing a DOI, ChatGPT will locate the full reference.

For creativity, argumentation and research, ChatGPT can be a useful tool and can help in creating a framework for communication. It is useful as a supplement to critical thinking and research. Chat CPT can be a useful research tool to pull information together and provide summaries and students can then use that as a foundation to write their own report. It can be used for both individual and group work, for example, engaging in dialogue around a topic and then students write an essay from the AI generated information.

Students can be asked to annotate and critique a research article and ask ChatGPT to do the same and then compare and contrast. Students can reflect on the differences.

Personal thoughts

In summary, I have shared here only a small snapshot of what's happening in this space. I would argue is it is transforming education, however, ChatGPT is only going to give us back what we put in. If we ask for those generic exam type questions, pop quiz questions, it will give us that. What is possible with ChatGPT now should make us question how we learn and rethink everything we know about how we teach. Whether ChatGPT is driving an education revolution, and whatever we think of it, one of the greatest educational opportunities ever or the worst nightmare for our students, it seems certain it is here to stay. In education, we promote critical thinking and transformative education, but we have really done little to change the system in Higher Education. Lecture is one of the most common forms of education. We need to prepare students for the world of work and accessing tools like ChatGPT to be efficient, for example, being asked by their manager to write a report that is needed in a short timescale. We need to support students to not skip on information they need, but making sure that they are ready for the workforce in using this kind of technology.

Profile

Dr Katharine Jewitt is an Associate Lecturer at The Open University in four faculties (Business and Law; Science Technology Engineering and Mathematics; Wellbeing, Education and Language Studies and The Centre for Inclusion and Collaborative Partnership) tutoring on access, undergraduate and postgraduate courses. She also works as a Validator with the Digital Schools Company to guide and implement its ongoing strategy to promote digital skills in Nursery / Primary / Special Education / Secondary schools & organisations. She has a Ph.D in Virtual Reality and is a Fellow of Advance HE. Katharine is also the Administrator of the

Association for Learning Development in Higher Education (ALDinHE), Technical Editor for the Journal of Learning Development in Higher Education and Co-Chair of the UNESCO Inclusive Policy Lab for Education and Digital Skills. Dr Jewitt's research interests focus on digital wellbeing and how technology enhanced learning can help people to develop key life skills and realise their full potential. Katharine has won several awards, including Tutor of the Year at The Open University (2021 and 2022). She tweets @katharinejewitt and her profile can be found at: https://www.open.ac.uk/people/kj986.

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