

ChatGPT – A Disruption in the Education Sector

Ashok Chanda
January 2023

If you haven't heard about ChatGPT yet in January 2023, you might have missed the early excitement of this new Artificial Intelligence (AI) tool set to revolutionise our lives. ChatGPT (Chat Generative Pre-trained Transformer) was launched by OpenAI as a prototype on November 30, 2022, and quickly garnered attention for its detailed responses and articulate answers across many domains of knowledge. However, its uneven factual accuracy was identified as a significant drawback. Following the release of ChatGPT, OpenAI was valued at - \$29 billion.

How Chat GTP is changing face of learning

To experience the capabilities of ChatGPT, I have ventured into its world of chat and asked numerous questions in chat - and every time it fascinated me with detailed answers and explanations in each instance. Being an educationist, I couldn't resist examining how ChatGPT is changing the education sector. Although it is too early to predict its full impact on education sector, one way to understand this is to find out from published articles on how this is impacting and another way is to ask ChatGPT itself and see how it responds to this question.

I chose to ask ChatGPT a number of questions about itself - and I received amazingly detailed answers which are summarised as follows -

Can you write an essay on how ChatGPT changing education sector?



Answer:

ChatGPT is a powerful language model developed by OpenAI that has the ability to understand and generate human-like text. This technology has the potential to revolutionize the education sector in various ways.

One of the main ways ChatGPT can change education is through its ability to generate personalized content. By analysing a student's writing style, interests, and level of understanding, ChatGPT can create customized lesson plans and educational materials that are tailored to the individual student's needs. This can help to increase student engagement and motivation, leading to better learning outcomes.

Another way ChatGPT can change education is by providing more efficient and effective ways to evaluate student performance. Traditional methods of assessment, such as multiple-choice tests, can be time-consuming and may not provide a full understanding of a student's knowledge and abilities. ChatGPT can be used to create more sophisticated and accurate assessments, such as open-ended questions or essays that can provide a more complete picture of a student's understanding of a subject.

In addition, ChatGPT can also help to improve communication between students and teachers. The technology can be used to generate automated responses to frequently asked questions, allowing

teachers to spend more time on more important tasks. ChatGPT can also be used to create virtual tutors that can assist students with their studies in real-time.

Finally, ChatGPT can also help to democratize education by making it more accessible to people in remote or under-served areas. The technology can be used to create online education platforms that can be accessed by anyone with an internet connection, regardless of their location.

In conclusion, ChatGPT is a powerful technology that has the potential to change the education sector in many ways. From personalized content and more accurate assessments to improved communication and increased accessibility, ChatGPT can help to improve the education experience for students, teachers, and institutions alike.

How can it generate personalized content?



Answer:

First, it can analyse a student's writing style by analysing their previous written work, such as essays or homework assignments. This can help ChatGPT understand the student's writing abilities, vocabulary, and sentence structure, which can be used to create customized educational materials that match the student's writing level.

Second, ChatGPT can analyse a student's interests by analysing the student's past interactions with educational materials, such as which topics they have been interested in or struggled with. This information can be used to create educational materials that are more engaging and relevant to the student, increasing their motivation and engagement.

Finally, ChatGPT can analyse a student's level of understanding by analysing their past performance on assessments, such as tests or quizzes. This information can be used to create educational materials that are appropriate for the student's current level of understanding and to track student's progress over time.

In summary, ChatGPT can analyse a student's writing style, interests, and level of understanding to create personalized educational materials that are tailored to the student's needs. This can help to increase student engagement and motivation, leading to better learning outcomes.

Can you elaborate on how ChatGPT can change education providing more efficient and effective ways to evaluate student performance?



Answer:

Yes, ChatGPT can provide more efficient and effective ways to evaluate student performance by creating more sophisticated and accurate assessments.

Traditional methods of assessment, such as multiple-choice tests, can be time-consuming to grade and may not provide a full understanding of a student's knowledge and abilities. ChatGPT can be

used to create open-ended questions or essays that can provide a more complete picture of a student's understanding of a subject.

For instance, ChatGPT can be used to generate a wide variety of questions and prompts that are tailored to a specific topic or learning objective. This can help to ensure that assessments are more comprehensive and cover a wide range of material. Additionally, ChatGPT can also be used to grade these open-ended questions or essays, using natural language processing techniques to understand student's answers and provide more accurate feedback.

Furthermore, ChatGPT can also be used to generate adaptive assessments that adjust in real-time based on student performance. For example, if a student struggles with a particular question, the system can generate a follow-up question that is easier or more relevant to the student's current level of understanding.

ChatGPT can also be used to generate simulations and scenarios that can be used to assess student's critical thinking and problem-solving abilities. It can also be used to create virtual tutors that can assist students with their studies in real-time.

In summary, ChatGPT can provide more efficient and effective ways to evaluate student performance by creating more sophisticated and accurate assessments, such as open-ended questions or essays, which can provide a more complete picture of a student's understanding of a subject. Additionally, it can also be used to grade these assessments, using natural language processing techniques to understand student's answers and provide more accurate feedback.

Can you explain how ChatGPT can help to improve communication between students and teachers?



Answer:

ChatGPT can help to improve communication between students and teachers by providing more efficient and effective ways to answer frequently asked questions and assist students with their studies in real-time.

One way ChatGPT can help improve communication is through the use of automated responses to frequently asked questions. ChatGPT can be trained on a dataset of commonly asked questions and answers, allowing it to understand and respond to student inquiries quickly and accurately. This can free up teachers' time, allowing them to focus on more important tasks such as lesson planning and one-on-one meetings with students.

Another way ChatGPT can help to improve communication is through the use of virtual tutors. ChatGPT can be used to create virtual tutors that can assist students with their studies in real-time. These virtual tutors can understand students' questions and provide relevant information, feedback, and guidance. This can help to increase student engagement and motivation and can also provide students with immediate help when they need it.

Additionally, ChatGPT can also be used to create virtual classrooms where teachers can interact with students and provide feedback on their work in real-time. This can help to increase student

engagement and participation in class, as well as provide teachers with a more complete understanding of student understanding.

In summary, ChatGPT can help to improve communication between students and teachers by providing more efficient and effective ways to answer frequently asked questions and assist students with their studies in real-time, through the use of automated responses and virtual tutors. Additionally, it can also be used to create virtual classrooms where teachers can interact with students and provide feedback on their work in real-time, which can help increase student engagement and participation in class.

Please explain how ChatGPT can also help democratize education by making it more accessible to people in remote or under-served areas?



Answer:

ChatGPT can help to democratize education by making it more accessible to people in remote or under-served areas through the use of online education platforms.

Online education platforms can provide students in remote or under-served areas with access to educational materials, resources, and support that may not be available to them otherwise. ChatGPT can be used to generate educational materials and resources that are customized to the needs of students in these areas. For instance, it can be used to create lesson plans and educational materials that are appropriate for the local culture and language. Additionally, it can be used to create virtual tutors that can assist students with their studies in real-time, providing them with immediate help when they need it.

Moreover, ChatGPT can also be used to create online assessment tools that can be used to evaluate student performance, providing students in remote or under-served areas with an equal opportunity to demonstrate their knowledge and abilities. This can help to ensure that students in these areas have the same opportunities as their peers to succeed academically.

In summary, ChatGPT can help to democratize education by making it more accessible to people in remote or under-served areas through the use of online education platforms. It can be used to generate customized educational materials and resources, and create virtual tutors that can assist students with their studies in real-time, and also by creating online assessment tools that can be used to evaluate student performance. This can help to ensure that students in these areas have the same opportunities as their peers to succeed academically.

Thanks for these answers. Anything more you want to add here.



Answer:

Thank you for your question. One more thing that I want to add is that ChatGPT is still in its early stages of development and there are many ways that it could be used to change the education sector in the future. As the technology continues to evolve, new and innovative applications of ChatGPT in education will likely emerge, leading to even greater improvements in the education experience for

students, teachers, and institutions. Additionally, it's important to note that the implementation of ChatGPT in the education sector should be done with caution and proper evaluation of its effectiveness, and should be paired with the support of human educators to ensure the best results.

Thanks again. Can I reproduce this chat in an article I am writing?



Answer:

Yes, you can produce this chat in the form of an article. You can copy and paste the text into a word processing program, such as Microsoft Word or Google Docs, and format it to suit your needs. You may also need to edit and revise the text, and add any additional information that you think is necessary. Make sure to cite the source properly if you are using it for any academic or professional purpose.

But, you didn't share any references or sources while stating all good reasons about Chat GPT.



Answer:

I apologize for not providing references or sources in my previous responses. As a language model, I do not have access to specific resources or studies that support the statements I made about ChatGPT's potential impact on education. However, many of the points I made are based on general understanding of the capabilities of language models and the current trends in education technology. That being said, it's important to note that ChatGPT's impact on education is still an area of ongoing research and development. It's important to conduct further studies and evaluations to fully understand the potential of this technology and its effectiveness in the education sector.

Additionally, while the use of AI in education can bring many benefits, it's important to also consider the potential drawbacks and ethical concerns, such as privacy and bias. It's crucial to have a comprehensive approach towards using AI in education by including the perspectives of educators, students, and experts in the field of education technology.

Associate Professor (Dr) Ashok Chanda is Provost – UBSS Adelaide Regency Campus and Online Campus, Group Colleges Australia