

AI and Psychiatry: The ChatGPT Perspective

Recently, ChatGPT quickly gained popularity and entered our lives by reaching a large number of users in a short period of time. The state-of-the-art language model, ChatGPT developed by OpenAI, utilizes advanced deep learning techniques to emulate human speech and answer text inputs. With a comprehensive database of text data, ChatGPT is capable of delivering accurate information and responses on a wide range of topics. Its versatility makes it a valuable asset for various applications, including conversational AI and chatbots, improving the user experience through human-like interaction and automated text generation, and natural language processing tasks such as question answering and language translation. This language model has the potential to revolutionize both the field of artificial intelligence and the way people interact with technology.

Due to ChatGPT's overwhelming success, millions of people have begun utilizing it regularly and delving into its capabilities. Aside from serving as a recreational tool, ChatGPT has potential applications in multiple industries, including healthcare¹. ChatGPT can be used in various ways in the medical field, including as a Clinical Decision Support tool to analyze patient data, a Medical Content Generator to save time and increase accuracy, a Drug Information Retriever to provide relevant details, a Medical Translator for international projects, and as a Patient Educator to improve understanding and engagement. Its powerful language capabilities and continuous development make it a promising tool to transform healthcare and improve patient outcomes.

The field of medicine continues to advance day by day, utilizing technology to its fullest with the development of increasingly sophisticated medical devices. However, despite this progress, there still remains a lack of reliable tools to aid in the diagnosis and monitoring of psychiatric conditions, relying mainly on the traditional methods of taking a patient's history, conducting a mental state examination, and observing their behavior. ChatGPT and similar applications have the potential to become a significant tool in psychiatry.

ChatGPT responds that it can identify the content of speech that includes hallucinations and delusions when asked. ChatGPT has the ability to determine the presence of pre-defined sets of symptoms in speech content. Although it may not provide accurate diagnoses on its own, it has the potential to be a valuable tool for clinicians by aiding in the diagnostic process, speeding it up and evaluating a large amount of data beyond what can be gathered just in the examination room. ChatGPT can be used in the education of psychiatric residents and medical students, both by providing information through question and answer, and by creating simulated patient examples. ChatGPT is seen to have a role in data collection and analysis by researchers, in treatment selection, and in the long-term automatic monitoring of patients in psychiatry. It can be expected that this will be done in a more human-like way, surpassing the mechanical and robotic chatbot examples we have seen so far.

In the fields of AI and Natural Language Processing, we now have applications that have exceeded our expectations, despite the fact that we might have expected them to reach such levels 10 years from now². It is now possible to write a computer software from scratch or have artificial intelligence write a scientific paper^{3,4}. It is evident that even though not entirely handed over to artificial intelligence, it will provide significant support under human control. In the field of psychiatry, the integration of artificial intelligence, natural language processing and GPT technologies holds immense promise. These technologies have the potential to revolutionize the way psychiatric disorders are diagnosed, treated and monitored. By leveraging advanced computational power and advanced data analysis capabilities, these tools can help psychiatrists to make more accurate and informed diagnoses, design more



effective treatments and personalize care for each individual patient. Additionally, the use of AI in psychiatry can also improve the accuracy and speed of clinical trials, thus advancing the development of new treatments. Furthermore, through the use of chatbots and virtual assistants, AI can also make it easier for patients to access mental health care, without having to go through the time and cost associated with traditional visits to a clinic. As these technologies continue to evolve and improve, the future of psychiatry and mental health care looks increasingly bright.

References

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