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Authored by | Jolean Sheffield - Thought Leader



ChatGPT: Answers Are "Highly Convincing" Regardless of Accuracy



HIA Technologies, Inc.

Two topics have dominated the news cycle lately: ChatGPT artificial intelligence and the resource crisis building in our nation's health systems. Naturally, healthcare leaders everywhere find themselves asking, "Can ChatGPT help us?" To explain the advantages and risks of this type of "open" AI, we'll go directly to the source and use OpenAI's ChatGPT (v.01.30.23) to contribute to this article. For transparency, we'll indicate AI-written text in bold.

Let's start off with a little self-awareness check. We asked -

"What is ChatGPT?"

Answered: **ChatGPT is an AI language model developed by OpenAI that uses deep learning to generate human-like text responses. It is trained on a large corpus of diverse internet**

text. As a result, it can generate a wide range of responses to a given prompt, making it useful for applications such as chatbots, question-answering systems, and language translation. It is based on the Transformer architecture and has achieved impressive results in various natural language processing benchmarks.

The concerning part is in the line above, "it can generate a wide range of responses to a given prompt," While this sounds exciting, in healthcare, it could prove very dangerous if not applied correctly.

Asked: What guardrails does chatGPT put in place to prevent giving the wrong answer?

Answered: ChatGPT, like other language models, does not have built-in guardrails to prevent giving incorrect answers. It is trained on a massive dataset of diverse internet text, which includes both accurate and inaccurate information. While it can generate highly convincing responses, it is important to note that the model is not capable of verifying the accuracy of its answers and can make mistakes. To prevent giving incorrect answers, it is recommended to use the model in conjunction with other sources of information and to carefully evaluate the results before using them in any critical applications.

What is more frightening than the potential proliferation of misinformation is that ChatGPT recognizes that its answers are "highly convincing" despite their accuracy or inaccuracy. Unfortunately, incorrectly applied to healthcare, such a convincing misinformation engine could have detrimental results.

Asked: How do we leverage the power of a sophisticated AI model without introducing more harm than good?

*Answered: **Leveraging the power of sophisticated AI models such as ChatGPT without introducing harm requires careful consideration and management of several factors:***

***Data Bias:** AI models can perpetuate and amplify existing biases in the training data, so it's important to use a diverse and representative dataset to minimize bias in the model's predictions.*

***Explanations and Transparency:** AI models can be opaque and difficult to understand, making it difficult to determine why they made certain decisions. Techniques such as model interpretability and transparency can help make AI models more understandable and trustworthy.*

***Ethical Considerations:** AI models can be used in ways that violate ethical principles such as privacy, autonomy, and fairness. Careful attention to ethical considerations can help prevent harm in the deployment and use of AI models.*

***Human oversight:** AI models are not perfect, and they can make mistakes that cause harm. It's important to have human oversight and management to identify and address any issues as they arise.*

By being mindful of these factors and taking steps to address them, it's possible to harness

the power of sophisticated AI models while minimizing harm and maximizing their positive impact.

Answers like these are, at the very least - honest. We can appreciate ChatGPT's ability to self-evaluate and warn information seekers when asked directly, but once it is nested in other products and shaped by outside vendors - will it maintain the transparency? Will it support clinical workflows, or will it raise more questions than answers?

One alternative to an open architecture conversational AI is the closed/secure methodology of "Physician-controlled AI" created by [HIA Technologies, Inc.](#)

Asked: What is *physician-controlled AI*?

Answered: *Physician-controlled AI refers to artificial intelligence (AI) systems that are designed to assist healthcare providers in their work, but are only activated and used under the control and supervision of a licensed physician. These AI systems use algorithms and machine learning to analyze medical data and provide insights or recommendations to physicians, who are responsible for making the final decision on treatment plans and patient care. The aim of physician-controlled AI is to improve the accuracy, speed, and efficiency of medical diagnoses and treatments, while maintaining the clinical judgment and expertise of healthcare providers. By having a physician in control, the potential risks and biases of AI systems can be mitigated, and ethical considerations can be taken into account in medical decision-making.*

HIA's Physician-controlled AI uses complex language models to interpret the questions and the asker's intention - to return a medically-validated answer directly from the healthcare team. It's incapable of "going rogue" like other AI platforms because it's a closed system. The answers don't come from the internet; they come from a data set controlled by the health system/client. For example, in HIA's Aivio™ environment (a secure, patient-education platform), patients can view content from their medical provider and engage with questions in real time.

Physician-controlled AI is aware of the topic, possible questions and answers, and where the patient is in the flow of the content. This intelligence allows it to respond to questions with context awareness and pinpoint accuracy. But, as ChatGPT warned us - human oversight is still critical for AI models. Physician-controlled AI provides that balance. Not only do the answers come from the healthcare team, when answer confidence thresholds are not met - the Aivio presents a list of "fallback" questions. These are questions that are likely to match what the asker intended, but have definite answers available.

Most open AI chat systems don't respond to these opportunities for clarification. They provide an answer (wrong or right) and rely on the asker to rephrase if they realize the answer is wrong. This puts all responsibility on the asker to first understand the answer *is* wrong and then think of better ways to ask their question. Then they have to actually ask the question once more, but differently. Physician-controlled AI, however, recognizes the opportunity for clarification and the importance of prompting the asker with a list of questions that can be answered.

| *Asked: Why is clarification important?*

Answered: *Clarification is important in many contexts as it helps to ensure that everyone involved in a conversation or situation has a clear and accurate understanding of what is being discussed or what is expected of them. Some of the key reasons why clarification is important are:*

Improved Communication: Clarification helps to reduce misunderstandings and prevent confusion, leading to more effective and efficient communication.

Increased accuracy: By seeking clarification, you can ensure that you have a complete and accurate understanding of the information being provided to you, reducing the risk of errors.

Better decision-making: When all parties involved in a situation have a clear understanding of what is being discussed, better and more informed decisions can be made.

Avoiding misunderstandings: Clarification can help to avoid misunderstandings and resolve conflicts, leading to a more harmonious relationship between people.

Building trust: By actively seeking clarification and ensuring that everyone is on the same page, you can build trust and improve relationships.

If clarification is so powerful, why would we rely on systems that don't even recognize when it's needed? Unfortunately, these shortcomings are just one of the many risks of open AI algorithms. But this doesn't mean that ChatGPT doesn't have a role to play in healthcare. Use cases for AI systems

lacking clinical oversight should focus on tasks that are supportive or complementary to the work of healthcare providers, rather than tasks that require clinical judgment or medical expertise. *Two examples of safe applications for ChatGPT in healthcare include:*

Appointment scheduling: ChatGPT can be used to assist patients in scheduling appointments or requesting prescription refills, reducing the workload of healthcare staff and improving patient access to care.

Medical record keeping: ChatGPT can be used to assist with the efficient and accurate management of medical records, reducing the risk of errors and improving patient care.

When it comes to direct patient interaction and answering clinical questions - healthcare systems are turning to more secure, controllable, "closed" AI systems. Physician-controlled AI is incapable of dispensing "unapproved" or "unvalidated" content - so it's more appropriately positioned to interact with patients directly.

For example, when a patient recovering from Carpal Tunnel surgery asks ChatGPT for specific information related to their surgeon the results of "open" AI compared to Physician-controlled AI are obvious:

Asked: How many times has Dr. Ghiassi performed this procedure?

ChatGPT: I'm sorry, but I don't have access to information about the specific number of carpal tunnel release surgeries performed by a particular doctor. This information is typically

not publicly available and is protected by patient confidentiality. If you have concerns about your care or treatment, it's best to discuss them directly with your doctor. They will have the most up-to-date information about your specific situation and can address any questions or concerns you may have.

Physician-controlled AI in Dr. Ghiassi's Aivio: Your doctor is an expert and has performed this procedure countless times over the years. CTS Surgery is , actually, the most common procedure he does! With his expertise, you're in good hands - no pun intended.

As healthcare organizations look for better, faster ways to scale their communication and engagement with patients - many are turning to AI. Some have begun testing it in automated symptom checkers and program enrollment workflows, while others seek ways to offset call center volumes or reduce the risk of readmission. Choosing the right AI system to support the goals and mitigate risks - is critical.

Fortunately for patients, open/non-secure AI models are under scrutiny by healthcare leaders. Secure, physician-controlled AI, on the other hand - is poised to make great strides in patient health literacy in 2023.

To learn more about the safer alternative to ChatGPT visit [Hia.AI](#)

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● ChatGPT tells us why [#physiciancontrolledAI](#) is better for healthcare in an article that practically wrote itself. [#trendinghealthcare](#) [#healthcarenews](#) [#chatgpt](#)

