

Group 1 Dialogues Phase B

Jerry Xu, Seth Close, Fuad Chowdhury, Shreya Sethi, Taehun Lee

CMPUT 200: Ethics of Data Science and Artificial Intelligence

Dr. Nidhi Hegde

March 21, 2025

Argument 1. Privacy and Data Security Concerns:

The first argument displayed by the LLM focuses on issues that may arise regarding privacy and data security concerns, mainly unauthorized access and misuse of healthcare information. While the argument given by ChatGPT is well-founded and aligns with the core issues as stated in the prompt, it lacks depth and real-world sources that would support the argument. For instance, specific examples such as the Google-Ascension Health partnership illustrate the real-life consequences of data breaches. The human-written argument is more comprehensive and refined, using both theoretical concerns along with concrete examples, providing a stronger justification for the negative side of using AI in healthcare. Additionally, ChatGPT does not fully expand on minor issues like ethical implications of data breaches beyond general privacy concerns. The erosion of patient trust and the potential for financial fraud or reputational damage is a major consequence that AI response overlooks. However, the LLM does offer several positives as well, such as greater efficiency. While the response may be brief, it provides a good foundation for expansion. Furthermore, it maintains a neutral tone to prevent bias, which supports the credibility of the discussion, especially when addressing sensitive topics such as healthcare.

Argument 2. Bias and Inequality in Decision Making:

The second argument presented by the LLM is founded on the idea that biases and inequalities in the data available to a model will result in the model having similar biases and inequalities. The argument is almost exactly the same as the first argument we provided previously; however, ChatGPT's version is significantly simpler. The LLM does not provide any resources or

sources for why the argument may be true, it also does not provide any resources for the argument to be fact-checked against. The simplicity of the arguments is likely a result of the simplicity of the prompt but it does highlight a possible pitfall of using ChatGPT blindly, the LLM will return accurate and inaccurate content with the same amount of confidence. The confidence of the model makes it difficult to differentiate when it can be trusted. Although the arguments are essentially the same between the human and the AI, the human-written one makes use of previous papers as sources to solidify and justify their response. The advantage that the AI holds is the ease with which this argument was put into written language, its response is grammatically correct and written fairly well while the human-written one took significantly longer to write and is more likely to have grammatical errors.

Argument 3. Potential for critical errors:

The third argument presented by the LLM addresses the concern of potential for critical errors.. Specifically, it shines light on the fact that an error in the algorithm can possibly lead to incorrect medical decisions and harm the patients. This argument made by LLM is related to the third argument in part A. Although the third argument in part A addresses the impact of critical errors in medical decision making scenarios, it is more specific and informative. The human written argument provides information on how specific factors, such as overfitting and black box models, may cause critical errors whereas ChatGPT's argument just briefly mentions that faulty algorithms and data causes errors and is vague about how it may affect the model. In addition, the human written argument draws information from credible sources such as medical journals, scholarly articles and case studies. In contrast, ChatGPT does not address any credible source for the argument it formulated, raising concerns of the credibility and correctness of the arguments made by the LLM. However, ChatGPT does have strengths. Although it is not effective in generating specific arguments, it is effective in providing general themes and topics that can be explored to compose an argument. In addition, arguments formulated by LLM are often well-structured with no grammatical errors.

Prompt and response:

Provide three different arguments for this: "Argue for the negative side: Consider a hospital that uses AI to process patient medical data to make decisions for the doctor. This AI system uses complex algorithms and data from various sources - including your medical history, lab results, and other relevant data from the hospital and healthcare system, but also any data available for purchase on the data market - to assist doctors in making critical decisions. This raises concerns of privacy, security, bias, potential for error and other issues. Is the hospital's argument that such an AI system has benefits that outweigh risks correct?"

Here are three arguments against the hospital's use of an AI system that processes patient medical data to make decisions for doctors:

1. **Privacy and Data Security Concerns:** The use of AI that pulls data from various sources, including purchased data from the market, raises significant privacy concerns. Patients have a right to control their personal medical information, and the use of data from external sources could violate that right. The more data the system uses, the greater the risk of breaches or unauthorized access to sensitive health information. Even if the system is well-secured, no system is immune to hacking or data leaks, leading to potential exploitation or misuse of private information.
2. **Bias and Inequity in Decision-Making:** AI systems rely heavily on the data fed into them, and if this data is biased or incomplete, the AI will replicate these biases in decision-making. For example, if the system uses historical medical data that reflects societal or institutional biases—such as overrepresenting certain demographics while underrepresenting others—it could lead to suboptimal or even harmful medical decisions for marginalized groups. This would exacerbate existing health disparities, rather than improve the quality of care.
3. **Potential for Critical Errors:** Despite AI's advanced capabilities, errors are still possible. AI systems are only as accurate as the data they process and the algorithms they use. If there is an error in data collection or a flaw in the algorithm, it could lead to incorrect medical decisions, potentially harming patients. While human doctors are also prone to error, AI could make decisions faster and with more confidence, making the impact of any mistakes more severe. In critical health situations, relying too heavily on AI could cause irreversible damage if the system fails to catch or misinterprets critical information.



By messaging ChatGPT, you agree to our [Terms](#) and have read our [Privacy Policy](#).
Don't share sensitive info. Chats may be reviewed and used to train our models. [Learn more](#)

Ask anything

+ Attach

Search

Reason



ChatGPT can make mistakes. Check important info.