Giggles and Groans:
ChatGPT's Dose of Medical Humor

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Background

- Large Language Models (LLMs) can mimic human reasoning and creativity in answering domain specific questions and generating prose.

- Humor requires a more nuanced understanding of conceptual relationships and cultural context.

- Understanding LLMs' grasp of medical humor can provide insight into their comprehension of the medical domain.

Methods

- OpenAI ChatGPT-4o was used to generate jokes about common medical professionals and sensitive medical conditions.

- The generated content was analyzed to identify common patterns in humor production, contextual relevance of the jokes, and effectiveness of wordplay.
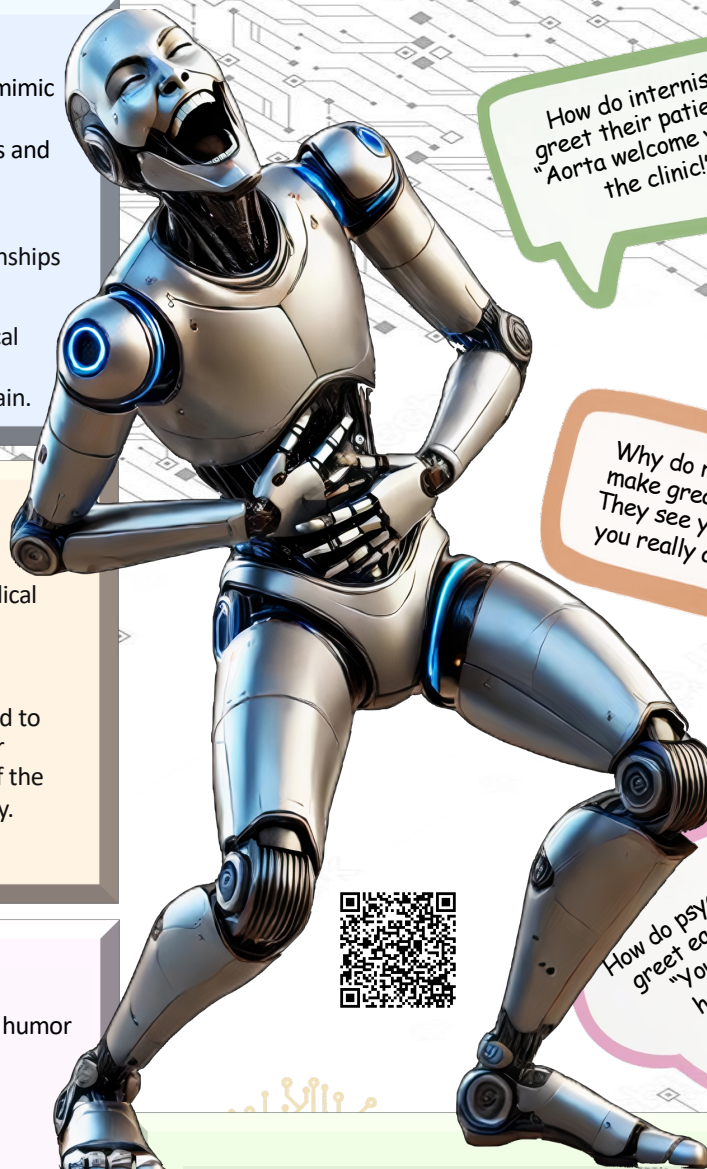
Results

GPT-4o models struggle with medical humor generation:

- **Contextual Misinterpretation**
  Jokes relying on medical jargon or healthcare-related cultural references were often misunderstood or produced nonsensical outputs.

- **Limited wordplay:**
  GPT-4o followed a standard template for jokes with common themes such as music and ladders resulting in repetitive, literal, or unfunny content.

- **Cultural Sensitivity:**
  GPT-4o refused to produce jokes about sensitive subjects in medicine including terminal illness, mental health disorders, trauma and abuse.

Conclusions & Next Steps

- This study demonstrates that while GPT-4o has made significant strides in natural language processing, it remains deficient in humor production, particularly in the context of medical humor.

- Future research should focus on developing models that incorporate cultural context and linguistic creativity.

- Further exploration of AI's delivery of jokes about sensitive medical topics could provide insights into underlying assumptions and biases in the training data around medical conditions.

How do internists greet their patients? "Aorta welcome you to the clinic!"

Why do radiologists make great friends? They see you for who you really are inside!

How do psychiatrists greet each other? "You're fine, how am I?"