Artificial Intelligence Tips for Practice, Today

Ishak Elkhal, MD Assistant Professor Family Medicine, OHSU Who has used an AI tool for clinical practice (like ChatGPT) in the last 6 months?

Current state: Audience - results

Who has used an AI tool for clinical practice (like ChatGPT) in the last 6 months?

[Link to results]

Objectives

After the talk, audience members will be able to..

- Understand the theoretical basis for large language models (LLMs)
- Understand the general capabilities as well as what is within and outside the scope of large language models (and their "AI" applications)
- Determine where AI may play a useful role within your practice











Hans 2017, adapted from Bowens 2010 and Shartzer 2005

HIPAA and AI

Three "settings"

- Free, online submission
 - You are not the consumer
 - You are the product
- Paid application
 - Possibly HIPAA compliant
- Local AI
 - For the most part, HIPAA compliant
 - May be against company policies
 - Possible security risk

Administrative support



Clinical decision tools

Content Creation





Hans 2017, adapted from Bowens 2010 and Shartzer 2005

ACGME

Milestone Milestone The knowledge, skills, and attitudes required to be competent in a required to be competent in a particular specialty

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Entrustable Professional Activities A task that a physician performs daily in the clinical environment

OPA

Observable Professional Activities An action that can be observed in the professional workplace



Figure 1: Feedback System Flowsheet



in the professional workplace

Figure 1: Simplified workflow of the feedback system. After feedback is pooled, it is input into the Large Language Model (LLM) where it will be summarized and the subsequent output will be validated against source material before being sent to the rest of the system. Each agent (custom LLM) will then integrate its own refinements into the document before being re-summarized and validated again against the source material. This repeats for every additional agent until each has contributed except the Consensus agent. At this penultimate step, Consensus agent will take critiques of the working document (v3 in this case) from each of the contributing agents and coordinate finding consensus. The final Processed Feedback report is then subsequently sent out to relevant parties. Technical aspects of this model and a more in-depth explanation of this workflow is reviewed in *Appendix 1*.

Clinical decision tools

Controversial



Where should we go? What is your biggest pain point?



Where should we go? What is your biggest pain point?

