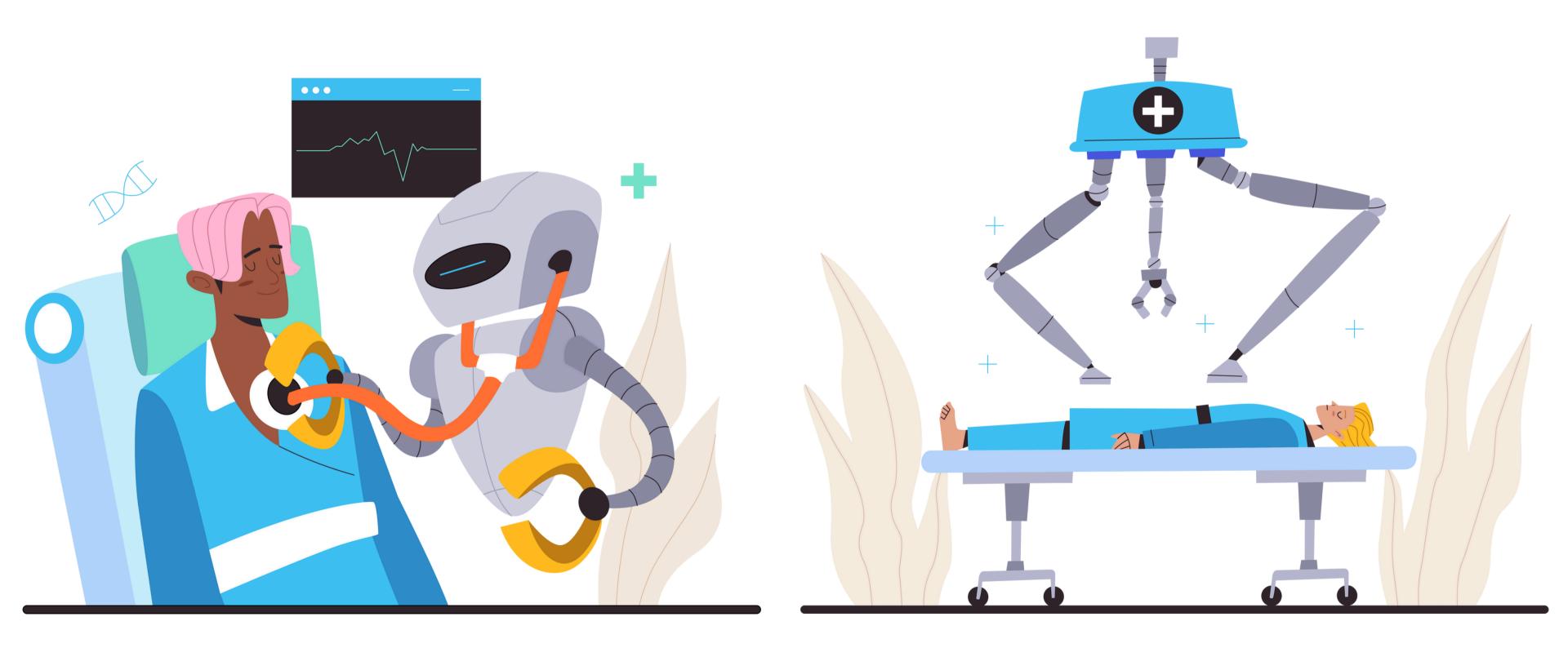
## CHAT GPT

Sakina Sojar, MD | Brad Soboleswski, MD MEd National PEM Conference March, 10th, 2025

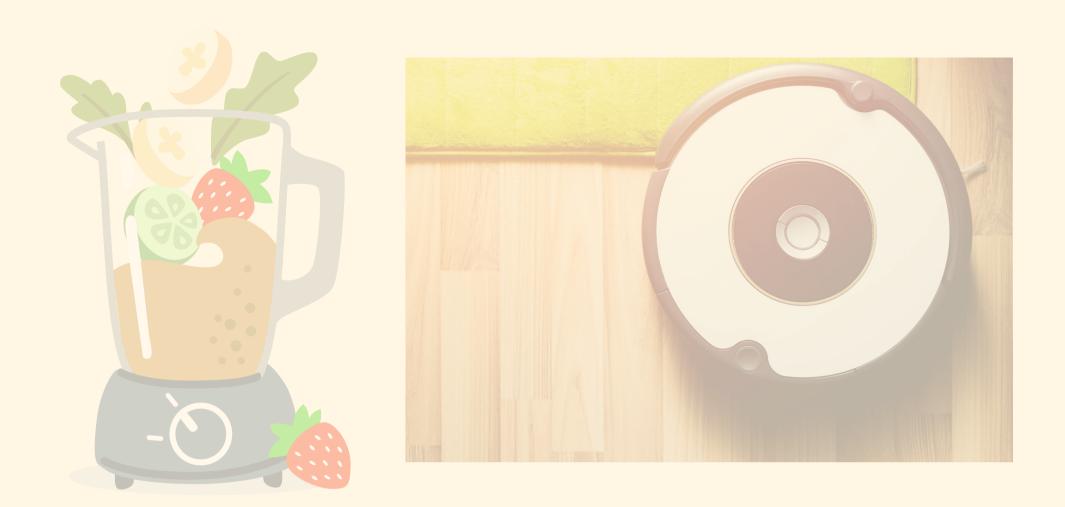
## Artificial Intelligence WHAT COMES TO MIND?













\*adapted from a presentation given by Dr. Karim Hanna, MD







## Machines to simplify human tasks.

\*adapted from a presentation given by Dr. Karim Hanna, MD

## Al technology designed to understand and learn human like text

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Understands the nuances of language, pattern recognition, generate coherent responses

Adapts and learns from your interactions. More you chat, the more relevant the response.

# IS THERE A ROLE IN EMERGENCY MEDICINE?



## ANECDOTAL

#### MONEY

Make the most of value-based care

#### BUSINESS

Can a third-party vendor grow your practice?

#### CAREERS

Dealing with difficult patients



## Medical Economics

SMARTER BUSINESS. BETTER PATIENT CARE.

OL 100 NO 7 JULY 2023

#### SPECIAL REPORT

### DR. AI

How ChatGPT and other AI tools will change health care







## ANECDOTAL

#### HEALTH

## ChatGPT can save lives in the ER, but it needs supervision: 'It is at once both smarter and dumber than any person you've ever met'

Hilary Brueck Apr 7, 2023, 6:43 AM EDT

→ Share

□ Save

#### Health

## ChatGPT: AI language model could be used to diagnose patients and help reduce A&E wait times

The team said that ChatGPT was "able to suggest medical diagnoses much like a human doctor would" but more work is needed

05-15-23

## I'm an ER doctor. Here's how I'm already using ChatGPT to help treat patients

There are many futuristic possibilities for how Al might transform healthcare. But it can help doctors do a better job in small, safe ways right now.

## Assessing the precision of artificial intelligence in emergency department triage decisions: Insights from a study with ChatGPT

Am J Emerg Med. 2024 Jan 24:78:170-175

"Evaluating the primary endpoints of our study - the agreement between the decisions of the triage team, GPT-4 decisions in emergency department triage, and the gold standard - we observed almost perfect agreement both between the triage team and the gold standard and between GPT-4 and the gold standard (Cohen's Kappa 0.893 and 0.899, respectively; p < 0.001 for each)."

### Human intelligence versus Chat-GPT: who performs better in correctly classifying patients in triage?

Am J Emerg Med. 2024 Feb 7:79:44-47.

"The concordance in triage code assignment between triage nurses and Chat-GPT was 0.278 (unweighted Cohen's kappa; 95% confidence intervals: 0.231-0.388). For all outcomes, the ROC values were higher for the triage nurses. The current level of Chat-GPT reliability is insufficient to make it a valid substitute for the expertise of triage nurses in prioritizing ED patients. Further developments are required to enhance the safety and effectiveness of AI for risk stratification of ED patients."

### Will code one day run a code? Performance of language models on ACEM primary examinations and implications.

Emerg Med Australas. 2023 Oct;35(5):876-878.



"We explored the performance of three prevalent LLMs (OpenAI's GPT series, Google's Bard, and Microsoft's Bing Chat) on a practice ACEM primary examination. All LLMs achieved a passing score, with scores with GPT 4.0 outperforming the average candidate."

### Medica EDUCATION

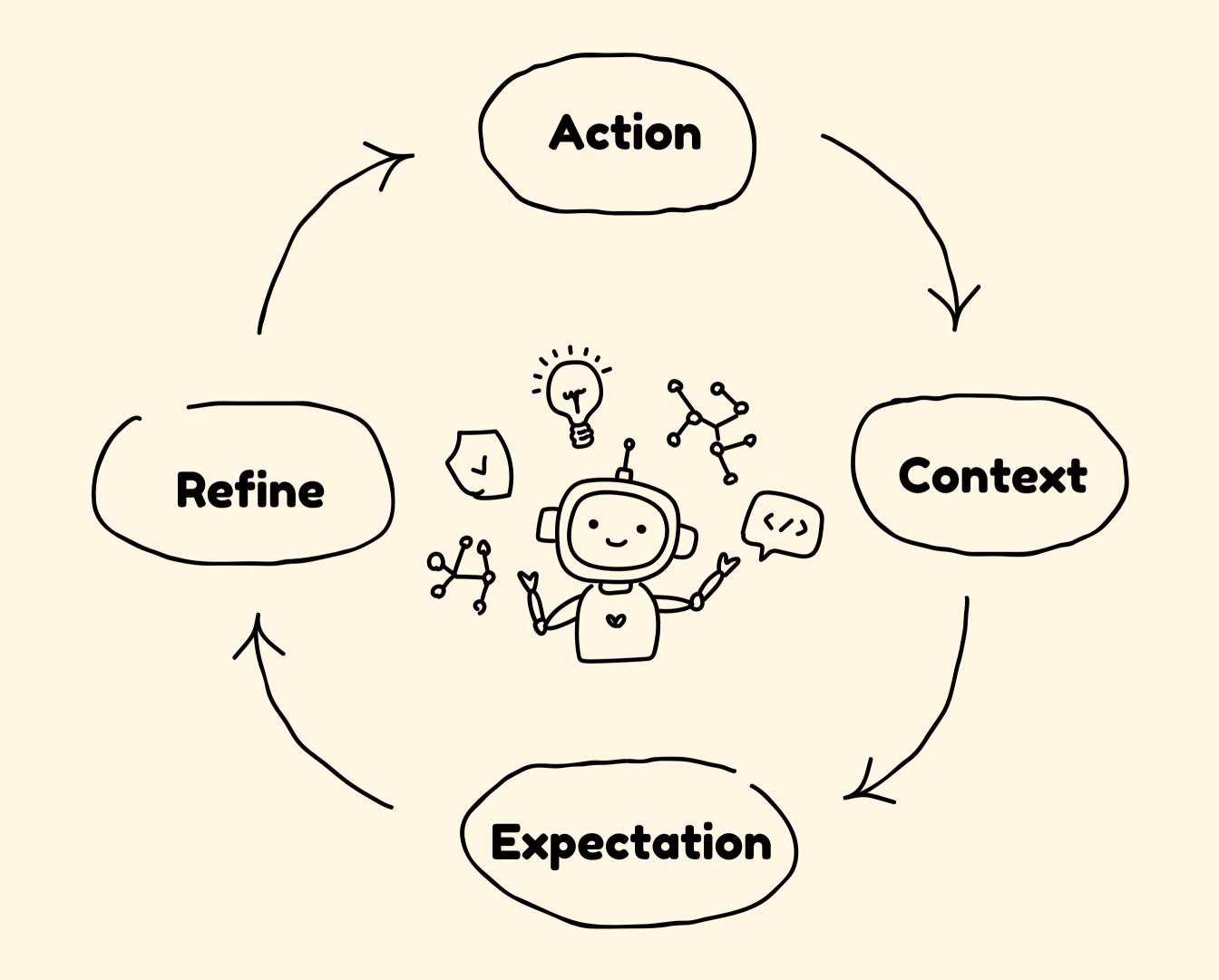
Giving Feedback/Bad News Creating Discharge/Smartphrases **Didactics and Simulation** Professional Development Quality Improvement Research



Chat GPT-pro



Choose your own





### PICK A TASK

## CHOOSE YOUR LANGUAGE MODEL TOOL

15 MINUTES

### Your task could include, but is not limited to:

- 1. Drafting an IRB submission
- 2. Creating discharge smart phrases in EPIC
- 3. Developing a didactic session or presentation for residents or medical students
- 4. Writing a cover letter for a job application
- 5. Preparing for journal club
- 6. Needing to submit a summary to the SOC of your scholarly work

- √ What was your task?
  - √Did you finish?
- √ How did LLM help?
- **√** What were some pitfalls?

Acific LIMITATIONS **Data Source Limitations** 

Lack of Critical Thinking

**Lack of Citations** 

Lack of Access to Restricted

Databases

**Environmental Impacts** 

Work in Progress

## Not meant to replace a human.

# Another tool to help you flourish.

Thank How!

sakina.sojar@brownphysicians.org www.brownpem.org



## Appendix

This workshop is designed to be interactive, allowing you to apply the skills presented in real time to a task that's relevant to you. To make the most of this session, please come prepared with a specific "to-do" item from your workload that you'd like to tackle.

This could include, but is not limited to:

- 1. Drafting an IRB submission
- 2. Creating discharge smart phrases in EPIC
- 3. Developing a didactic session or presentation for residents or medical students
- 4. Writing a cover letter for a job application
- 5. Preparing for journal club
- 6. Needing to submit a summary to the SOC of your scholarly work

By the end of the workshop, my goal is for you to walk away with not only a better understanding of large language models in medical education but also tangible progress on a task that matters to you.

#### **Prompt One:**

#### **Discharge Instructions**

You have tasked to write discharge and follow up instructions for all five common pediatric diagnoses (bronchiolitis, gastroenteritis, laceration repair, croup, cast care) to the following patient families. You may not be able to get through the entire task, but see how much you can accomplish in 15 minutes:

- a. Parent is a JD/MD
- b. Parent has not completed high school
- c. Parent is Spanish speaking, went to college
- d. Parent is Spanish speaking, no literacy
- e. Parent is blind

#### **Prompt Two:**

### QI Project - Improving time to administration of pain medication in patients with sickle cell pain crises

While this is going to be IRB exempt, you still have to submit it for review. Please download the IRB protocol summary document for your institution and complete it. It needs to be submitted tomorrow, as the IRB is meeting this week. Otherwise this project will be delayed for at least two months. You may not be able to get through the entire task, but see how much you can accomplish in 15 minutes:

#### **Prompt Three:**

Research Project- Comparing the efficacy and safety profile of precedex vs. ketamine for sedation during radiologic procedures.

Please download the IRB protocol summary document and complete it. It needs to be submitted tomorrow, as the IRB is meeting this week. Otherwise this project will be delayed for at least two months. You may not be able to get through the entire task, but see how much you can accomplish in 15 minutes:

### **Prompt Four:**

### Creating a simulation on the toxidrome of your choice for EM residents

Consider every detail– What are your learning objectives? what equipment and personnel do you need? Complete the guide that has been attached. You may not be able to get through the entire task, but see how much you can accomplish in 15 minutes:

#### **Prompt Five:**

#### Cover Letter/Cold Call Email

You are moving to Atlanta at graduation because your partner's job. There are two hospital groups that you can potentially look for a job. One of the groups is the Emory PEM Group (Egleston, Hughes) and the other is Scottish Rite (PEMA-private group). You are cold calling them. Write a cover letter and initial email that would guarantee you an interview at both places. You may not be able to get through the entire task, but see how much you can accomplish in 15 minutes:

#### **Prompt Six:**

#### **Statistics Lecture**

You took the step exams and boards, right? So you definitely know everything about statistics. You were voluntold that you have to do a presentation for medical students on the different types of statistical variables and models in about 48 hours for a group of 60 medical students in a lecture hall in preparation for their Step 3 exam. You can assume none of them have taken a formal stats class prior to your lecture.

You are the fellow on in the ED today and tomorrow. Use language modeling to help create a didactic for this group. You may not be able to get through the entire task, but see how much you can accomplish in 15 minutes:

Sensitivity, Specificity, Negative Predictive Value, Positive Predictive Value, ROC, Odds Ratio, Relative Ratio, Categorical, Variables, Continuous Variables, Fisher's Exact Test, Chi Squared Test, T-Test, Mann Whitney-U, Wilcoxin Rank Sum Test, ANOVA

#### **Prompt Seven:**

#### **Preparing for Journal Club**

You have been asked to present "Randomized Trial of Three Anticonvulsant Medications for Status Epilepticus" from the NEJM for journal club for conference this week. The faculty have asked you to present the information in the article in the PICO format. Prepare this presentation. You may not be able to get through the entire task, but see how much you can accomplish in 15 minutes:

Link To Article