INNOVATING MED ED WITH AI: INSIGHTS FROM THE MACY REPORT

September 16, 2025

Sponsored By:
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Association of American Medical Colleges

WELCOME POLL QUESTIONS

Welcome to the Innovating Med Ed with AI: Insights from the Macy Report webinar. To gain a better understanding of your relationship with AI. Please answer the poll questions that are about to appear on your screen. Thank you!

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MEET THE PANELISTS

Alison Whelan, MD

Moderator

Chief Academic Officer
Association of American Medical Colleges

Jesse Rafel, MD

Panelist

Assistant Professor, Department of Internal Medicine, and Director of Research, Institute for Innovations in Medical Education
NYU Grossman School of Medicine

Christy Boscardin, PhD

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Professor and Director of Assessment and Artificial Intelligence, Department of Medicine
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Clinical Associate Professor, Department of Medical Education and Pediatrics
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Innovating Med Ed with AI: Insights from the Macy Report

Christy Boscardin, PhD (UCSF)
Brian Gin, MD, PhD, PhD (UIC)

Disclosures

- We wish to thank the Josiah Macy Foundation for supporting our literature review and interview studies. (Special thank you to the late Holly Humphrey)
- Thank you to our co-authors: Raja-Elie Abdulnour, Jesse Rafel, Kate LaForge.
- No conflicts of interest to declare

AGENDA

- Current State of AI
- Opportunities and Considerations
- Plenty of time for Q & A

My mood...

LANDSCAPE ANALYSIS

As part of the planning for the Macy Foundation Retreat on AI, we conducted a landscape analysis reviewing over 455 studies (up to June 2024) to understand the current state of AI integration in medical education. We hope the review will provide helpful examples of AI use cases and ignite a conversation for further exploration and where we might go next.

Organization of the Literature

Five Educational Areas:

- 1) Admissions, 2) Classroom-based learning, 3) Workplace-based learning, 4) Assessment, 5) Program Evaluation

Targeted Problem or Challenges:

- 1) Reducing burden on faculty/system, 2) Efficiency, 3) Improve Quality

AI Tasks:

- 1) Knowledge retrieval, 2) Predictor & Classifier, 3) Summarizer, 4) Virtual agents, 5) Machine vision & spatial reasoning

Admissions

Challenge:

- Increasing applicants
- Enabling holistic review for diversity
- Resource intensive

AI Solution:

- Machine Learning (ML) for screening applicants
- Natural Language Processing (NLP) to analyze & review letters
- Large Language Models (LLM) as communication chatbot for potential applicant queries

Classroom-Based Learning

Challenge:

- Integrating early clinical skills development
- Variability in learner background & knowledge
- Personalization is resource intensive

AI Solution:

- Virtual patients for early clinical skills practice
- Knowledge retrieval to fill knowledge gaps
- Curriculum map for more personalized learning

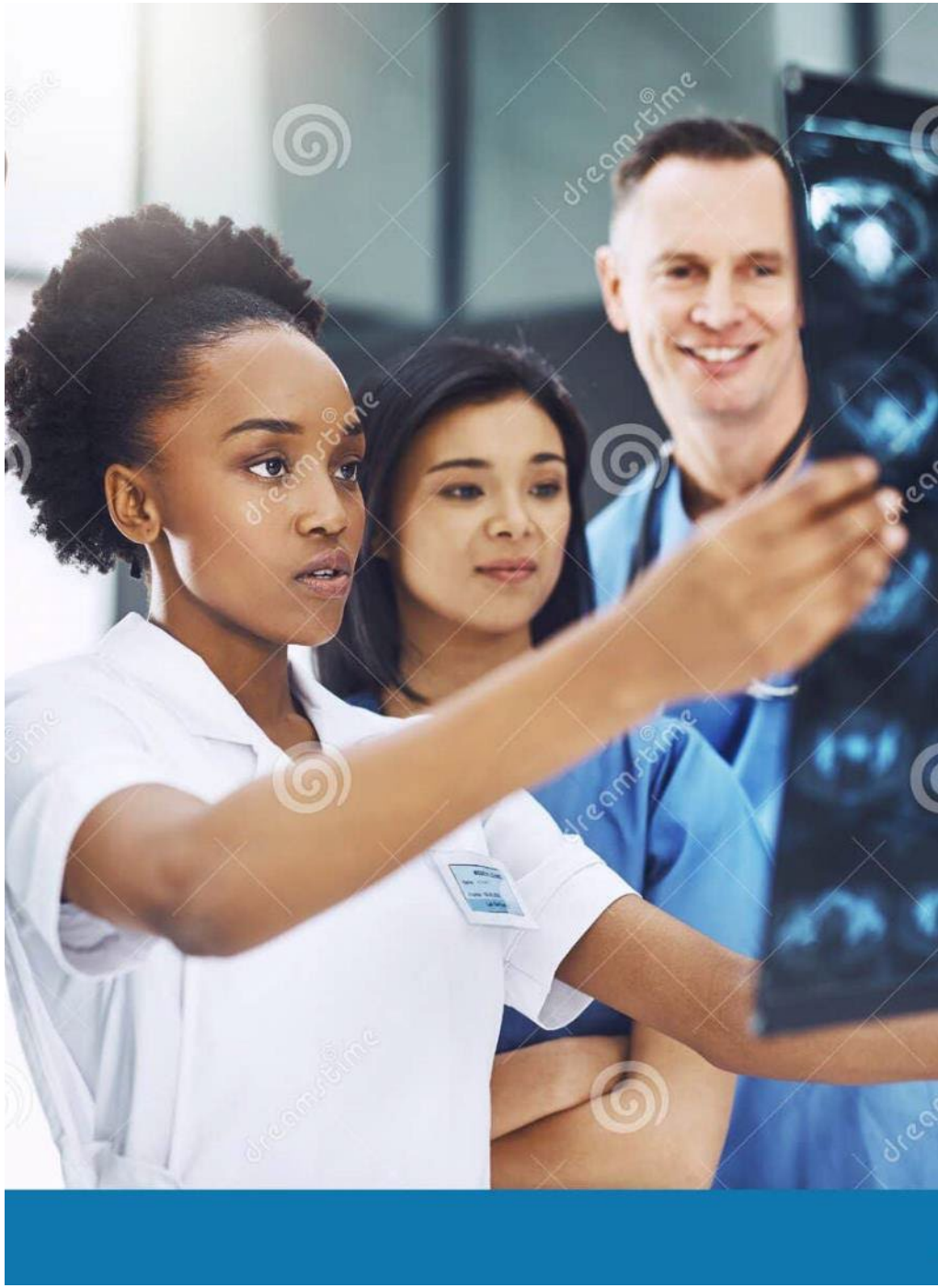
Workplace Learning

Challenge:

- High quality coaching is resource intensive
- Documentation burden on faculty and supervisors is high

AI Solution:

- Clinical Decision Support (CDS) tools
- Data and diagnostic interpretation tools
- LLMs for automating documentation



Assessment & Certification

Challenge:

- Feedback and scoring burden on faculty are high
- Just-in-time feedback & intervention

AI Solution:

- NLP and LLMs for scoring texts
- VR for assessing clinical skills
- ML Predictive analytics

Program Evaluation

Problem:

- A multitude of data (especially text data)
- Need for predictive patterns for early intervention

AI Solution:

- LLM for text analysis
- ML for predictive analytics & insights

Versa Curate

- LLM chatbot with medically trusted content
- Partnerships with McGraw Hill
- Facilitate learning by providing primary sources of information for verification

UCSF Versa

Assistants | Large Language Model | Sample Questions

Versa Curate | GPT-4o | What are possible causes of sudden cardiac arrest in a 12 year-old boy?

New Chat

Greetings, Christy! I'm your Versa Curate assistant. I am a secure and enhanced version of ChatGPT and have been updated with UCSF-approved medical content and references.

Versa is HIPPA-compliant and PHI data from UCSF Health (Parnassus) are permitted per site policy. For other sites such as ZSFG, VA, and Kaiser, please do not enter any site-specific patient identifiable data without permission from your site director.

By proceeding to ask questions, you give the UCSF Versa team permission to save your prompts and answers for review and improvement of the Versa Curate assistant.

You: **Explain the pathophysiological mechanisms behind GERD**

Thinking.....

Enter your question. (Shift + Enter for new line)

Disclaimer: AI responses may contain inaccurate information. Verify answers independently.

Part 2: From Hype to Reality - **Navigating AI Integration Challenges**

Interview study

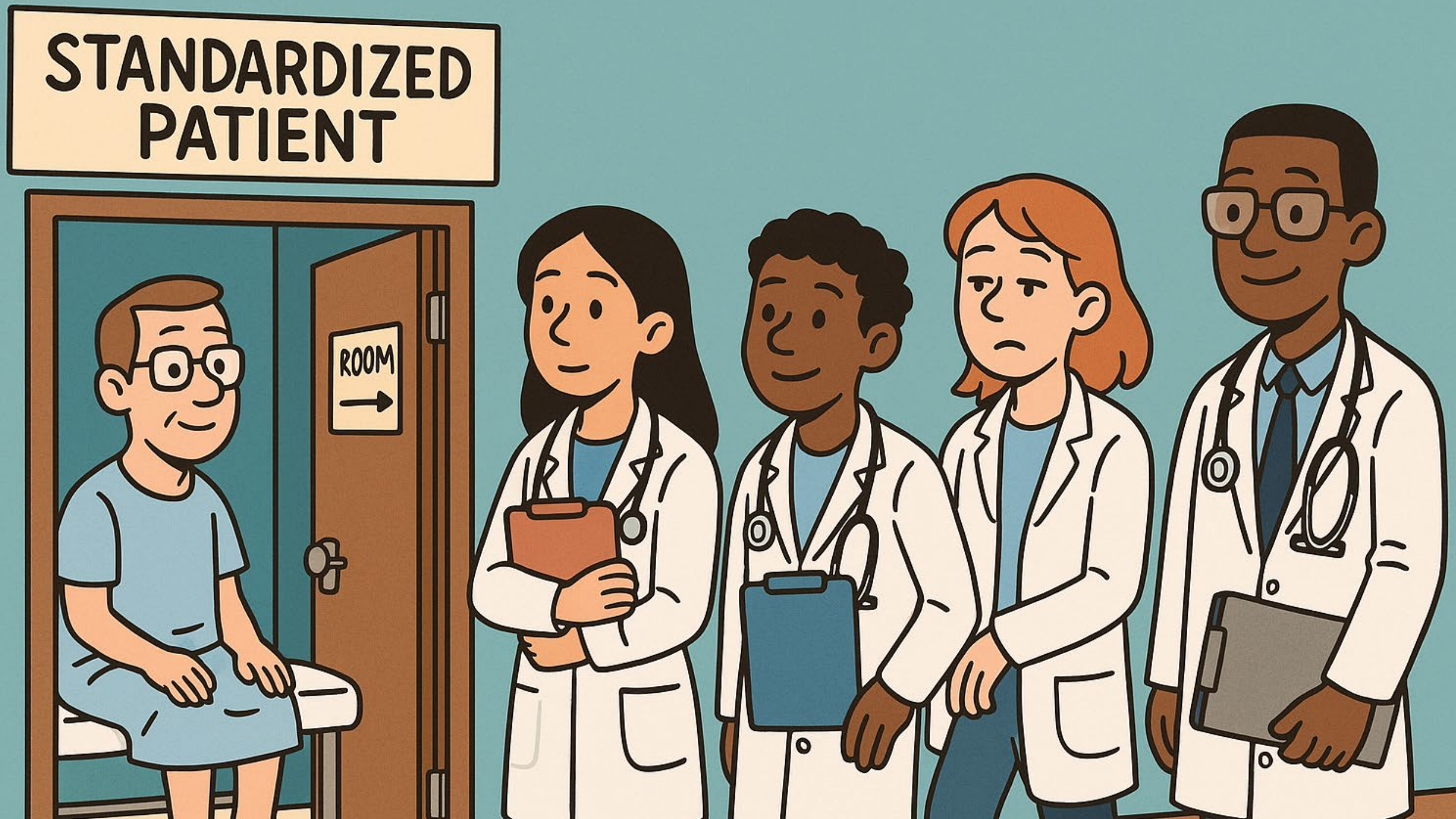
Title	Institution
Chief Operating Officer	Enlighten Strategies
Associate Chair of Education	UCSF
Chief Academic Officer	AAMC
Assistant Director, Institute for Innovations in Medical Education	NYU Grossman School of Medicine
President	Mayo Clinic Platform
Asst Professor Radiology	Emory School of Medicine
Director, Technology Enabled Clinical Improvement Center	Stanford
Vice Chancellor for Medical Education	Washington University School of Medicine
President & CEO	ABIM
Chief Health AI Officer	UCSD
Founder & CEO	Glass Health
MD/MBA student	Washington University School of Medicine
Vice Dean of Education	UCSD
Resident	University of Michigan
MD student	Yale School of Medicine
Executive Director, Healthcare AI Applied Research Team	Stanford
Chief Medical Officer, Chief Digital Officer	UCSD
Manager, Data Science team	NBME
Clinical Innovations Officer	UCSF
Professor	MCW & UWSMPH
Chief Resident of Quality & Safety	UCSF
Senior Vice President	Microsoft Healthcare

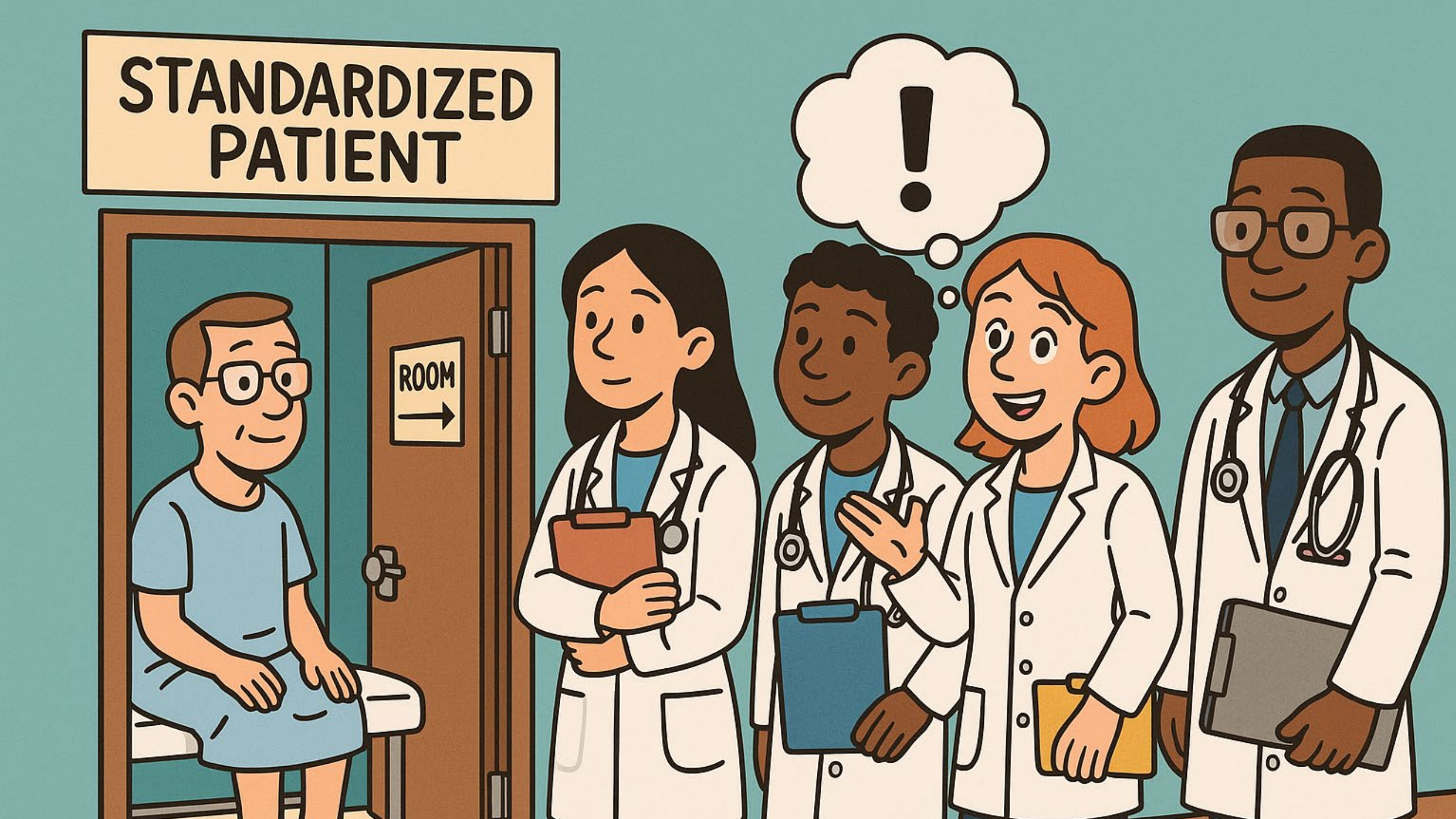
Participants
(*n* = 22)

Impact of AI on MedEd

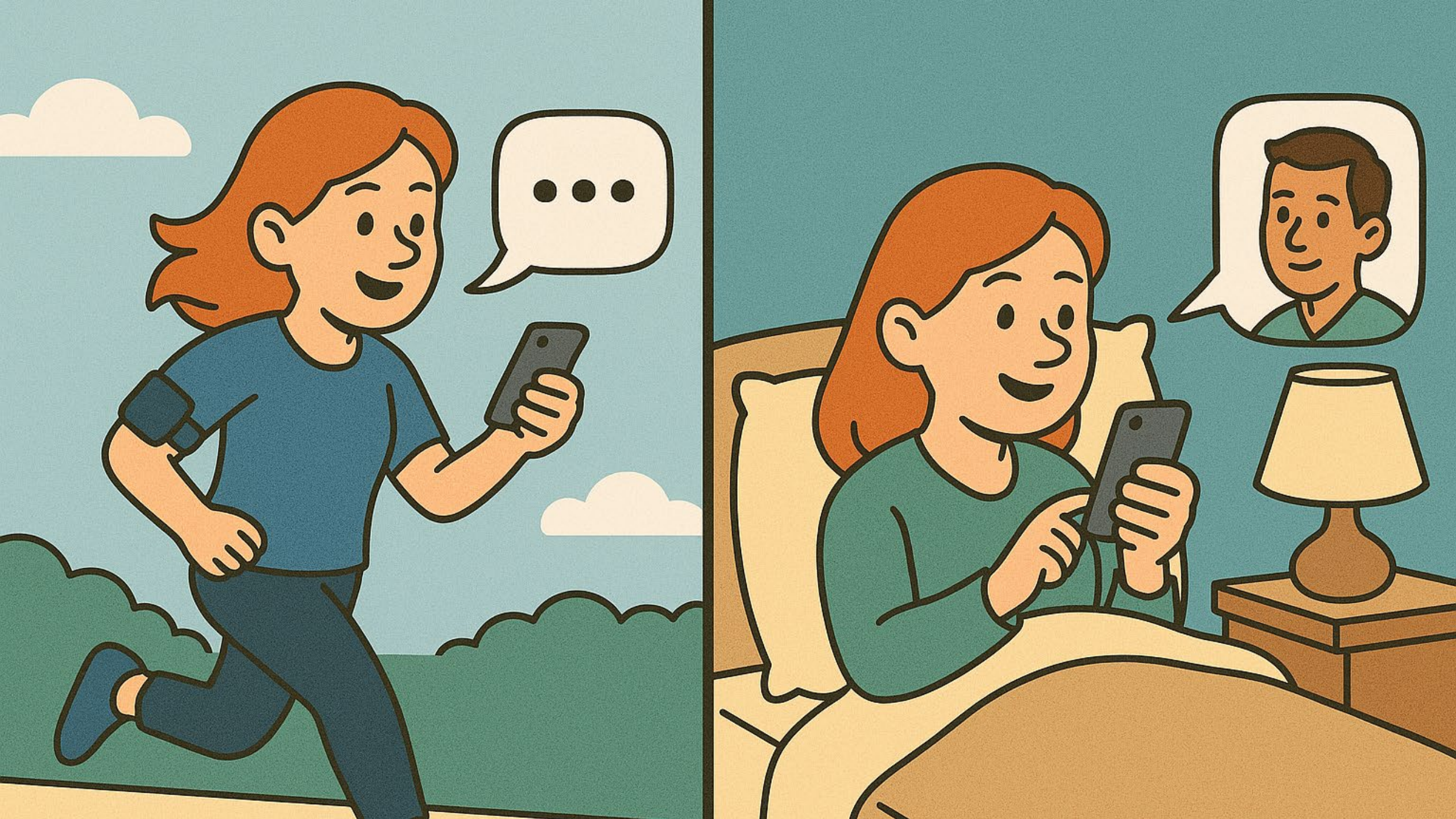
- How we learn:
  - AI-enhanced classroom – the “AI tutor” and “AI Peer”
  - Centralized learning – “hub and spoke” model
  - AI-enhanced simulation – the “virtual patient”


STANDARDIZED PATIENT
ROOM


STANDARDIZED PATIENT
ROOM


STANDARDIZED PATIENT
ROOM
!


VIRTUAL PATIENT
SIMULATOR



Edge File Edit View History Favorites Profiles Tab Window Help Thu Sep 11 7:51 PM

Multi-User Chatbot | Principles for the Responsible

localhost:5500

Deploy

User Menu

Logged in as: Ramona Learner

Menu

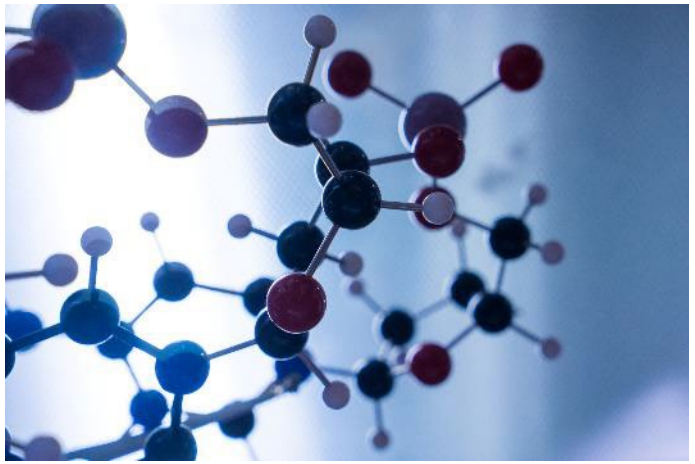
- Home
- Account Details
- Logout

Blanca, an 18-year-old college student, presents with intermittent fevers, fatigue, and joint pain over the past month.

Type your message here...

Impact of AI on MedEd

- What we learn:
  - Cognitive “offloading”
  - Memorizing knowledge → navigating knowledge
  - Routine/mundane skills → integration and critical thinking

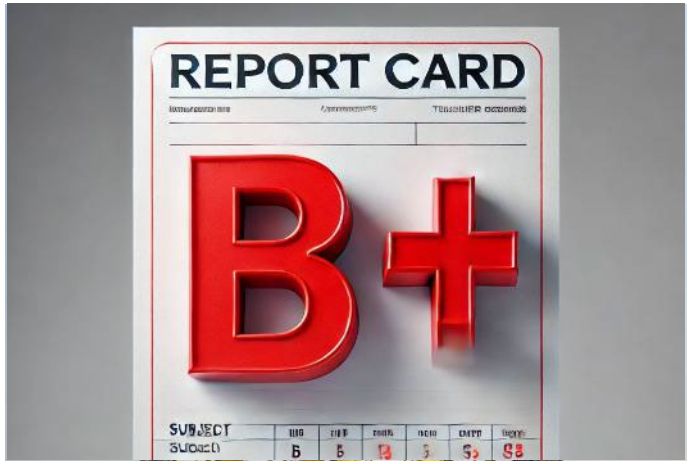


Challenges and mitigation

- Transparency, validity, reliability
  - “Human in the loop fallacy” – AI monitoring fatigue
  - Tensions between transparency and intellectual property

Challenges and mitigation

- Bias
  - Known and unknown biases in training data
  - Does a universally unbiased position exist?



Challenges and mitigation

- Deskilling, mis-skilling, and never-skilling
  - Erosion of foundational skills
  - Overdependence, vulnerability to AI absence

Challenges and mitigation

- Institutional inequity
  - AI “have’s” vs “have-not’s"
  - Funding, infrastructure, expertise

3 Critical Questions for the future of AI+MedEd integration

1. How will we differentiate AI hype from reality?

2. How will AI change foundational knowledge and skills?

3. How will AI change patient-provider interactions?

Thank you &

Acknowledgements

Q&A WITH OUR PANELISTS

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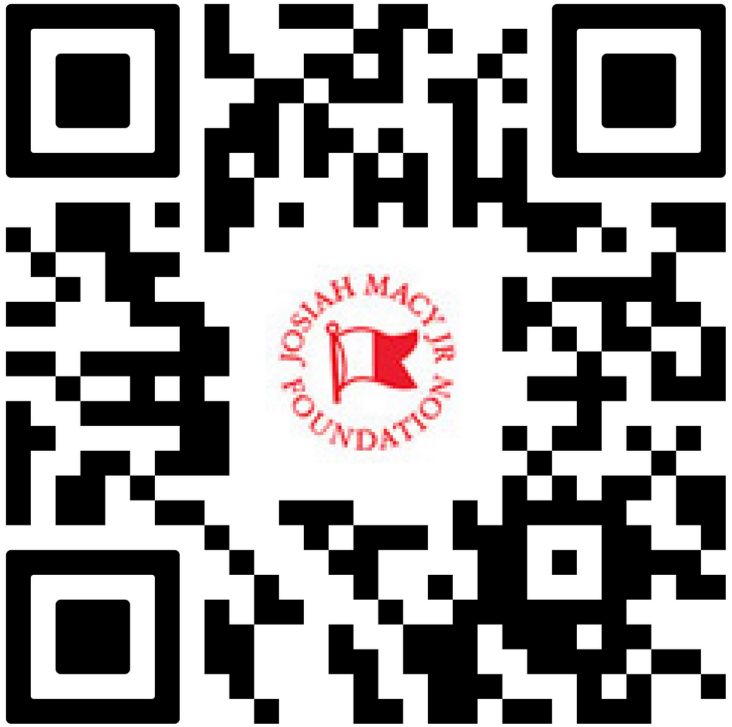
READ THE INNOVATIONS REPORT IN ACADEMIC MEDICINE

Josiah Macy Jr. Foundation Conference on Artificial Intelligence in Medical Education

Please scan the QR code below to access the full publication, which includes the Innovations Report, conference proceedings, recommendations, and more.



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