


Golisano Children's Hospital/Emergency Preparedness

## Smart Preparedness: The Role of AI in Emergency Management Programs and Healthcare

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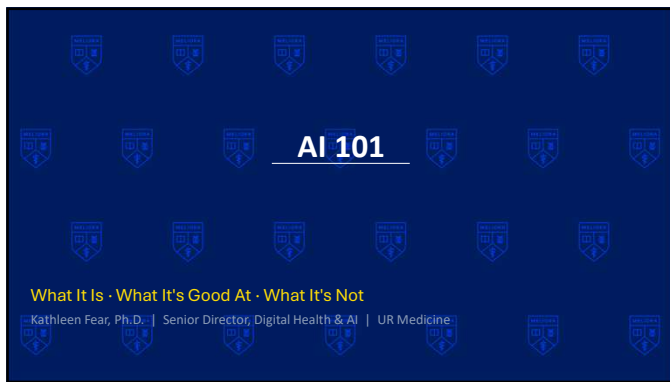
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## AI 101

What It Is · What It's Good At · What It's Not

Kathleen Fear, Ph.D. | Senior Director, Digital Health & AI | UR Medicine

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### What is AI?

A system trained on enormous amounts of human writing and knowledge that generates useful output in response to a prompt. AI can be **surprisingly good at tasks that used to require a specialist.**

-  **Not a robot.** It doesn't move, think, or act in the world on its own.
-  **Not a database.** It generates responses, but it doesn't look things up the way Google does.
-  **Not magic.** It has real limits and understanding them is key to using AI effectively and responsibly.

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## What is AI good at?

- Drafting & Communication**  
First drafts of plans, public announcements, scripts, SOPs. 45 minutes → 2 minutes.
- Synthesis**  
Give it a 40-page document. Ask for the key decision points. It handles volume.
- Translation**  
Technical → plain language. Clinical → public comms. Briefings for leadership.
- Scenario Thinking**  
"What are the failure modes?" "What am I not thinking about?" It generates options.
- Speed Under Pressure**  
When you need something reasonable fast, it delivers. Review still required.

*AI doesn't replace expertise; it accelerates work and can extend expertise.*

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## What is AI bad at?

*AI can sound confident even when it's wrong. Your evaluation and judgment is critical.*

- It can hallucinate.**  
It will generate plausible-sounding information that is simply incorrect, including drug names, dosages, regulatory details, specific protocols. It doesn't flag uncertainty the way a careful person would.
- It has no situational awareness.**  
It doesn't know your incident, your geography, your staffing, your history. You have to give it context explicitly, and it's working only from what you tell it.
- It is not a database.**  
It cannot look up your current protocols, your org chart, or real-time information unless it's been specifically built to do that.
- It reflects its training data.**  
Which means it can reflect biases, gaps, and outdated information — without signaling that it's doing so.
- It's not great with numbers or dates.**  
Math, statistics, specific figures, timelines: It may confidently produce numbers that are wrong. Always verify quantitative claims independently.

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## Using AI responsibly

**Never put real patient information, sensitive operational data, or anything you wouldn't want on a public server into a commercial AI tool.**

<p><b>FOR UNIVERSITY OF ROCHESTER MEDICINE STAFF</b></p> <p><b>Use Qualified Health.</b> It is built with appropriate privacy and security controls for healthcare.</p> <p>Do not enter any business or patient information into general consumer tools (ChatGPT, Claude, Gemini).</p>	<p><b>FOR EVERYONE IN THIS ROOM</b></p> <p>Know your organization's AI policy before you use any tool.</p> <p>If you're unsure whether something is appropriate to put in a prompt, don't put it in. Ask first.</p>
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# AI as a Force Multiplier in Simulation Design

Simulation · Education · Resources

Dana Spirithes, DNP, RN | Nursing Professional Development Practitioner & Nursing Lead, Levine Pediatric Simulation Center | UR Medicine

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## Introduction

- Healthcare Simulation = experiential learning
- Participants can build confidence, skills and competencies in a simulated clinical environment which poses **no risk** to patients



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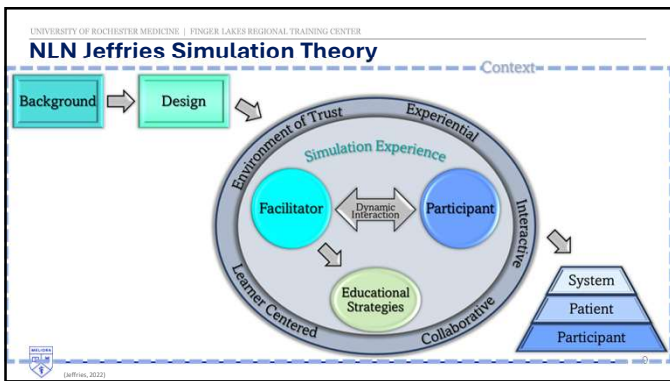
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### The Challenge and Where AI Adds Value

Challenge	Value Add
Time-intensive development	Rapid scenario drafting
Inconsistent quality	Generates objectives & actions
Slow response to safety events	Creates debriefing prompts
Limited resources	Builds scenario variations
	Shift: Draft → Refine

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### From Event → Simulation



- Identify real clinical event
- Generate AI draft
- Refine with expertise
- Deploy quickly
- Faster response to safety threats

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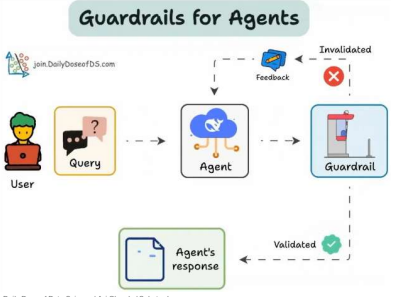
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### The Guardrails

- AI lacks context
- May miss realism
- Does not ensure safety
- Cannot tailor to learners unless explicitly told
- Risk without oversight

#### Guardrails for Agents



Daily Dose of Data Science | Avi Chavla | Substack

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### Simulation Best Practices

- Clear learning objectives
- Realistic workflows
- Psychological safety
- High-quality debriefing
- AI supports—not replaces—experts

Healthcare Simulation Standards of Best Practice™  
With the support and input of the global community

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### What to Watch in the Demo

- Speed of scenario generation
- Where refinement is needed
- How you can apply this
- AI amplifies your capacity

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**Utilizing AI in Preparedness**

Drills · Education · Resources

Kimberly Maguda, MS RN-BC CCRN-K CHEC-II | Emergency Preparedness Coordinator | UR Medicine

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### Exploring AI for Emergency Preparedness

- Scenario Development
- Patient Lists
- Exercises and Drills
- Educational Materials
- ExPlan, SitMan, MSEL, AAR-IP
- Sources and Citations



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### The Human Element

- Hospital Policies, Guidelines and Procedural Checklists
- AI in context of hospital culture and workflows
- Request and check sources for AI responses
- Exercise development and evaluation
- Focus on debrief → continuous improvement

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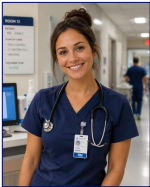



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### Bias in AI: Guess the Prompt

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### Prompt Engineering in 5 Easy Steps

Better prompts = better answers · Control for bias

- 1. WHO**  
*Tell AI Who It Should Be*
  - “As an emergency preparedness coordinator...”
  - “As the County Office of Emergency Management...”
  - “Respond like an infectious disease expert...”
- 2. WHAT**  
*State the Task Clearly*
  - WEAK: “Tell me about communication.”
  - BETTER: “Give me 3 communication strategies for new emergency managers.”
- 3. WHERE, WHEN & WHY**  
*Add context by providing audience, purpose etc.*
  - “This is for clinic RNs receiving MedSled training.”
  - “This is for a presentation for EMTs on SALT triage.”
  - “This is for a FEMA grant application for...”

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### Prompt Engineering in 5 Easy Steps

Better prompts = better answers · Control for bias

- 4. FORMAT**  
*Polish the prompt*
  - Bullet points, presentation, outline, email, etc.
  - “Create an Exercise Plan using HSEEP principles.”
  - “Create a 30-minute PowerPoint presentation.”
- 5. REFINE**  
*Additional prompt polish*
  - “Make this shorter.”
  - “Make this evidence-based with references.”
  - Assign a tone: professional, inviting, convincing.




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**“Act as a hospital emergency manager. Create a 30-minute active shooter drill for new nurses to reinforce concepts of RUN-HIDE-FIGHT. Include scenario, objectives, resources needed, debrief questions in an Exercise Plan format.”**

<p><b>Purpose</b> This exercise is designed to familiarize new nursing staff with hospital active shooter response procedures using the principles of <b>RUN-HIDE-FIGHT</b> while maintaining patient safety considerations in a healthcare environment.</p> <p><b>Exercise Scope</b> Participants will respond to a rapidly evolving active shooter event occurring within the hospital. Drill emphasizes:</p> <ul style="list-style-type: none"> <li>• Personal survival</li> <li>• Rapid decision-making</li> <li>• Communication under stress</li> <li>• Patient protection priorities</li> <li>• Coordination with hospital security and law enforcement</li> </ul>	<p><b>Core Capabilities Evaluated</b></p> <ul style="list-style-type: none"> <li>• Emergency response procedures</li> <li>• Situational awareness</li> <li>• Staff communication</li> <li>• Protective actions</li> <li>• Incident command activation</li> <li>• Personal safety decision-making</li> </ul> <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• Recognize signs of an active shooter event and initiate immediate protective actions.</li> <li>• Demonstrate understanding of RUN-HIDE-FIGHT in the hospital.</li> <li>• Identify safe actions for ambulatory vs non-ambulatory patients.</li> <li>• Use emergency communication systems appropriately during event.</li> <li>• Describe coordination expectations with DPS and law enforcement.</li> </ul>	<p><b>Scenario: Shots Fired on 4 West</b> It is 1430 on Monday. 4 West (med-surg) is busy providing care for patients. Staff RNs hear a disgruntled family member arguing loudly near the elevators. Moments later, loud bangs are heard, and overhead paging announces:</p> <p>“Active threat reported near 4 West elevators. Initiate active shooter procedures immediately.”</p> <p>Participants must rapidly assess whether to:</p> <ul style="list-style-type: none"> <li>• RUN (evacuate)</li> <li>• HIDE (secure in place)</li> <li>• FIGHT (last resort defense)</li> </ul>
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### Putting it All Together

Use ChatGPT's SimBuilder to create an Exercise Plan for a hospital evacuation drill using prompt engineering principles.

<b>Who</b> <small>Tell AI Who It Should Be</small>	As an emergency manager at a large academic medical center
<b>What</b> <small>State the Task Clearly</small>	Create a hospital evacuation tabletop exercise
<b>Where When Why</b> <small>Context, Purpose, Audience</small>	For the hospital's Incident Command Team
<b>Format</b> <small>Format of AI Output</small>	Exercise Plan based on FEMA/HSEEP principles
<b>Refine</b> <small>Polish the Prompt</small>	



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- Qualified Health. (2026). *Qualified Health Assistant (AI Assistant)*. Accessed [May 8, 2026] via Qualified Health Platform.
- Royce, C. & Vincent, R. (2026, Apr 18). *Empowering the Nursing Workforce Through AI Literacy*. University of Rochester Medicine.



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