Decision Making With AI

Gavin Taylor
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The views and opinions presented herein are those of the author and do not necessarily represent the views of the DoD or its Components.

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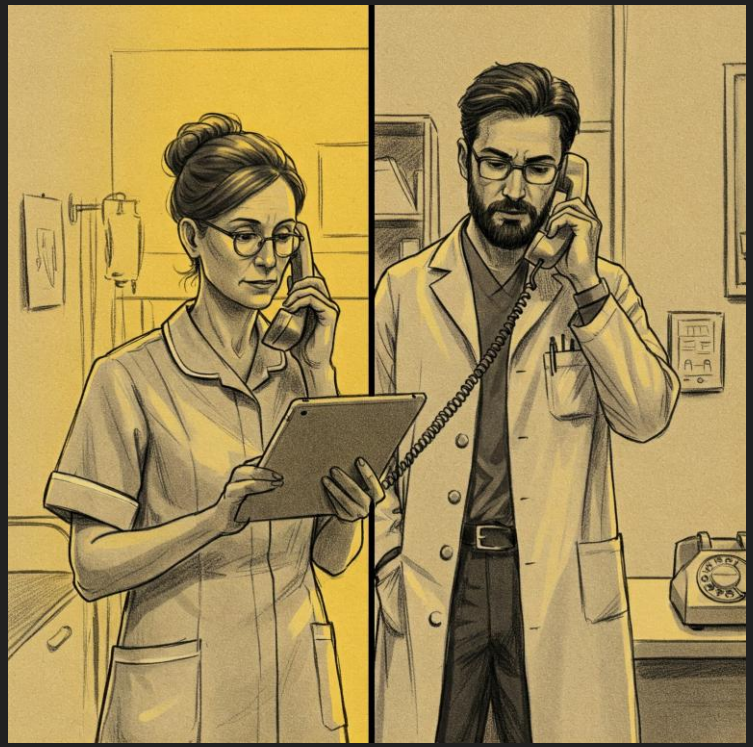
AI

draw a watercolor picture of a savanna, which does NOT have an elephant on the right side of the picture

Sure, here it is!

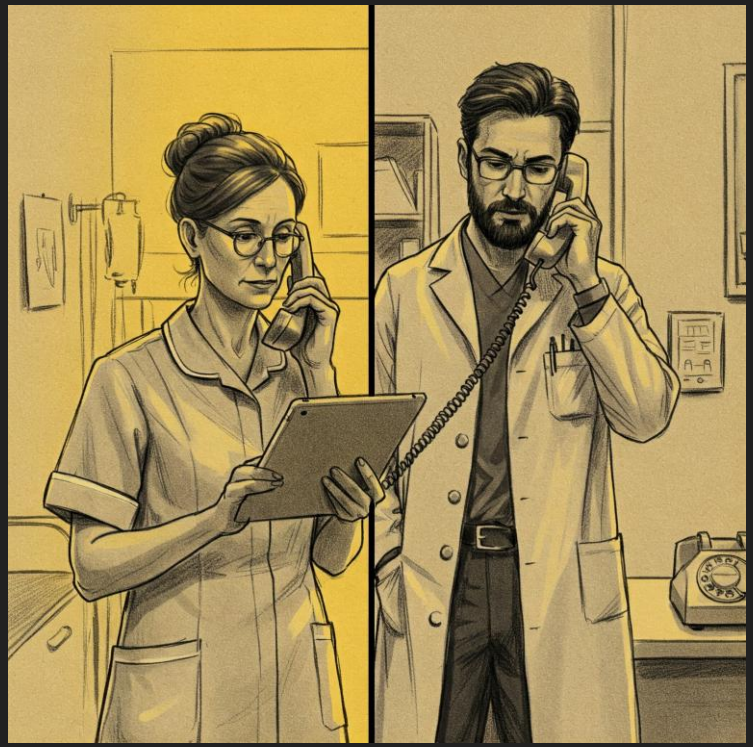
Case Study: Sepsis Watch



Elish and Watkins. Repairing Innovation: A study of integrating AI in clinical care

Sendak et al. Real-World Integration of a Sepsis Deep Learning Technology Into Routine Clinical Care

Case Study: Sepsis Watch



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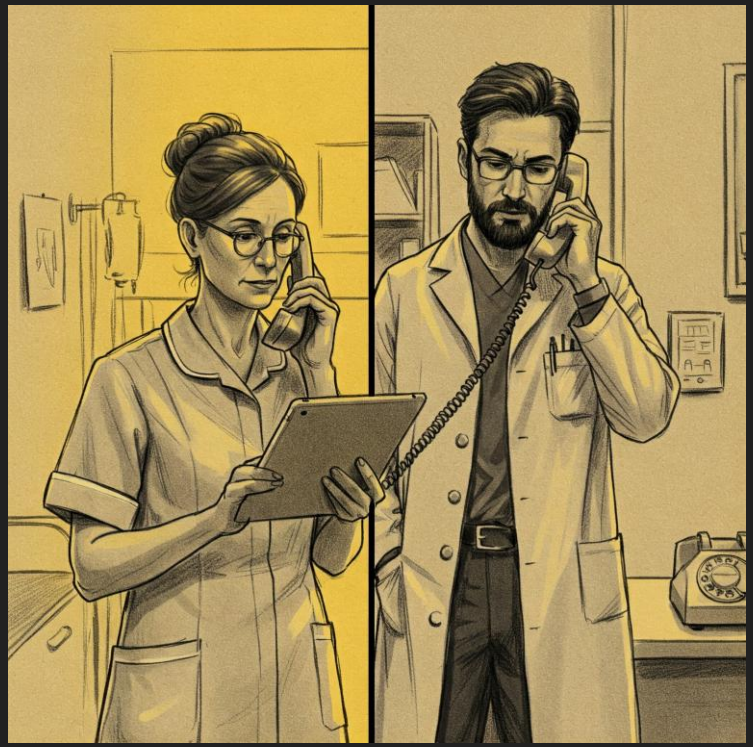

- Frequent friction was observed when a doctor was “accused of missing something” by a nurse they did not know, about a patient the nurse had not seen, by a tool that was not explainable.
- Significant emotional labor and workflow design was necessary to make the tool workable.

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Case Study: Project Maven

- US Military project to use AI to assist with sensor fusion, target identification, target prioritization, and decision support

Building the Tech Coalition: How Project Maven and the U.S. 18th Airborne Corps Operationalized Software and Artificial Intelligence for the Department of Defense
Emilia S. Probasco
August 2024

Case Study: Project Maven

- US Military project to use AI to assist with sensor fusion, target identification, target prioritization, and decision support
- Changing capabilities and partners

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Case Study: Project Maven

- US Military project to use AI to assist with sensor fusion, target identification, target prioritization, and decision support
- Changing capabilities and partners
- AI community and military traditionally did not have a strong relationship

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Case Study: Project Maven

- Flexibility and rapid iteration as capabilities and partners change
- Engineers should embed with users, for the benefit of both
- Contributing processes (access, experimentation) need to be streamlined
- Trilingual leaders (domain, AI, and acquisitions) need to lead “outside the norm, but within the rules”

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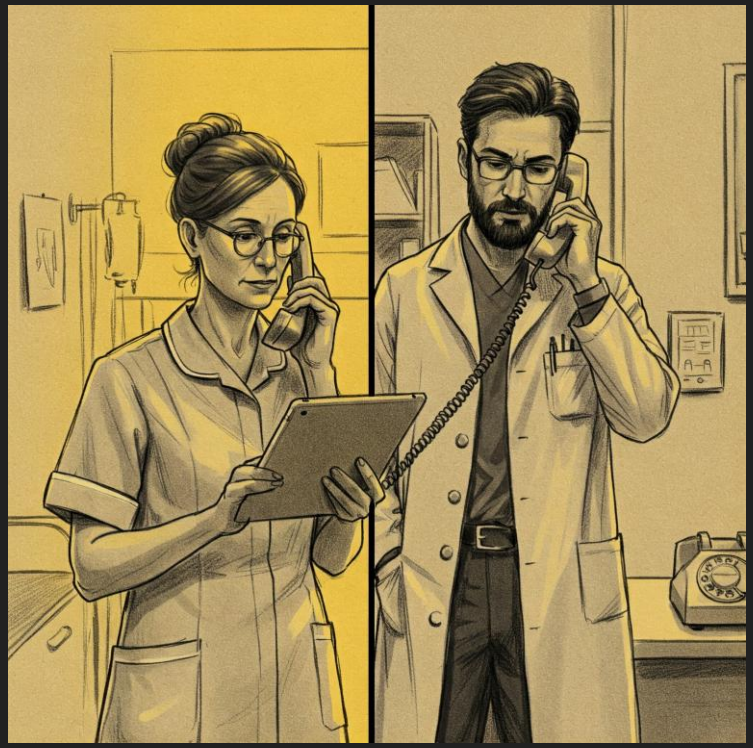

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AI can be wrong in convincing and authoritative ways

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Prompt: Explain why Gavin Taylor was fired from the US Naval Academy

Stable Diffusion (which, to be clear, is wrong):

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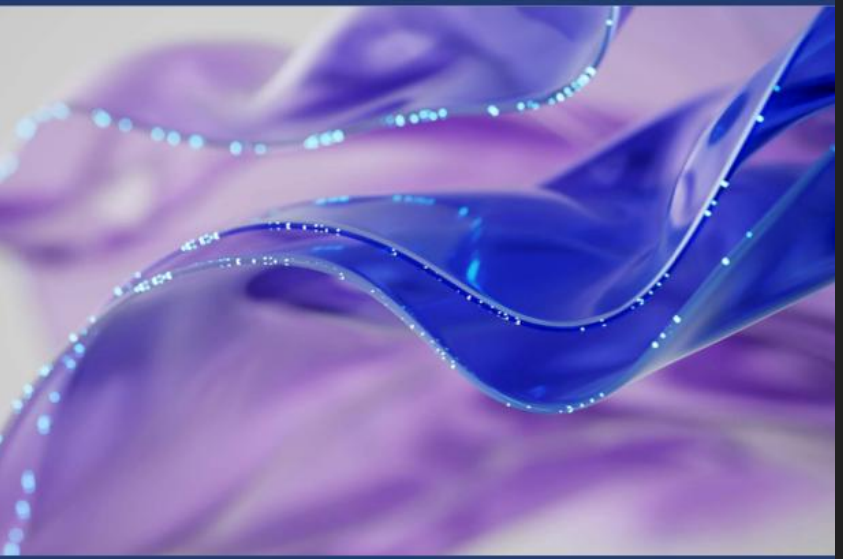
Stable Diffusion (which, to be clear, is wrong): Gavin Taylor, an alumni of the United States Naval Academy (USNA), was dismissed from the academy on March 10, 1996, following allegations of sexual misconduct.

Association for the Advancement of Artificial Intelligence

AAAI 2025 PRESIDENTIAL PANEL ON THE

Future of AI Research



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Factuality & Trustworthiness

Improving factually and trustworthiness of AI systems is the single largest topic of AI research today, and while significant progress has been made, most scientists are pessimistic that the problems will be solved in the near future.

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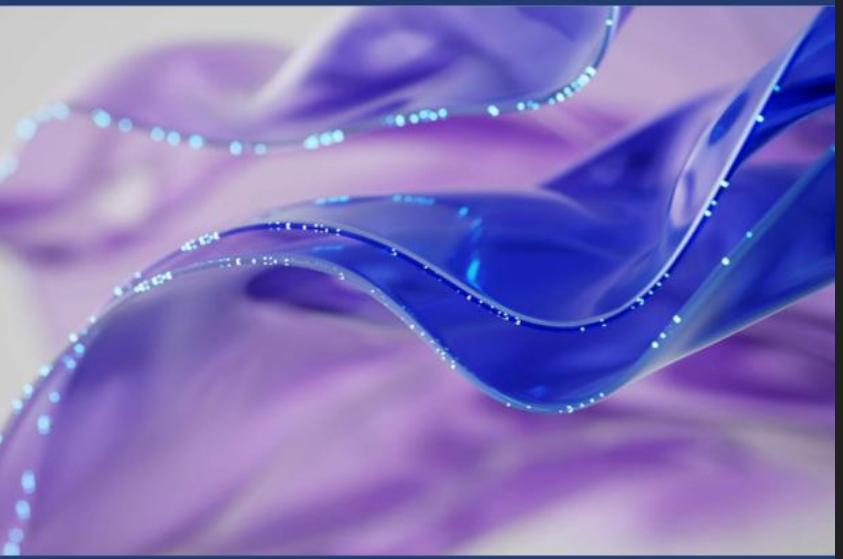

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AI Reasoning

The ability to reason has been a salient characteristic of human intelligence, and there is a critical need for verifiable reasoning in AI systems.

Conclusions

AI is developing quickly, and can work extremely well

AI can help a person consider more data and more information when making difficult decisions

Successfully integrating AI into a decision making process requires human skills and intentionally flexible processes

It is easy to accidentally cause harm with data bias or immature (yet hyped) technologies

Leaders themselves need to be AI and domain experts