Ethical Principles for Generative Artificial Intelligence from Military to Healthcare

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Army Lt. Col. Gary Legault is a cornea/refractive surgeon stationed at Joint Base San Antonio (JBSA). He has performed thousands of refractive surgeries and trained residents and cornea fellows in refractive surgery.

He graduated from the Uniformed Services University in 2009 and then completed an Ophthalmology residency at San Antonio Uniformed Services Health Education Consortium (SAUSHEC). After residency, he completed a cornea/refractive surgery fellowship at Duke University. Upon completion of fellowship, Army Lt. Col. Legault became the chief of refractive surgery at William Beaumont Army Medical Center.

In 2017, he became the Ophthalmology Residency Program Director and Army Refractive Surgery Program Manager. In 2020, he established the DHA Refractive Surgery Board and became the first chair. He currently assigned as the Director of the Virtual Medical Center, Deputy Ophthalmology Consultant for the Office of Surgeon General of the United States Army, and an Associate Professor of Surgery at Uniformed Services University.

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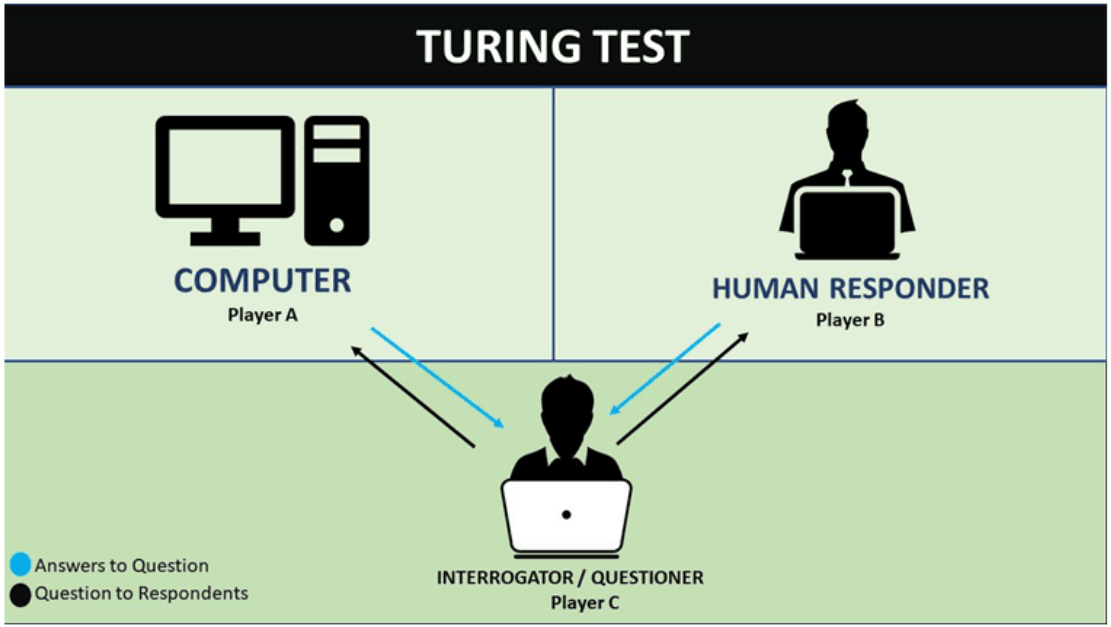
Learning Objectives

At the conclusion of this activity, participants will be able to:

1. Compare and contrast the ethical frameworks governing the development and deployment of generative artificial intelligence (GenAI) in military and healthcare contexts.
2. Evaluate the applicability of ethical principles defined by the GREAT PLEA framework.
3. Demonstrate how ethical principles build trust in AI systems among leaders and providers.

Artificial Intelligence

- Alan Turning coined the term in 1956



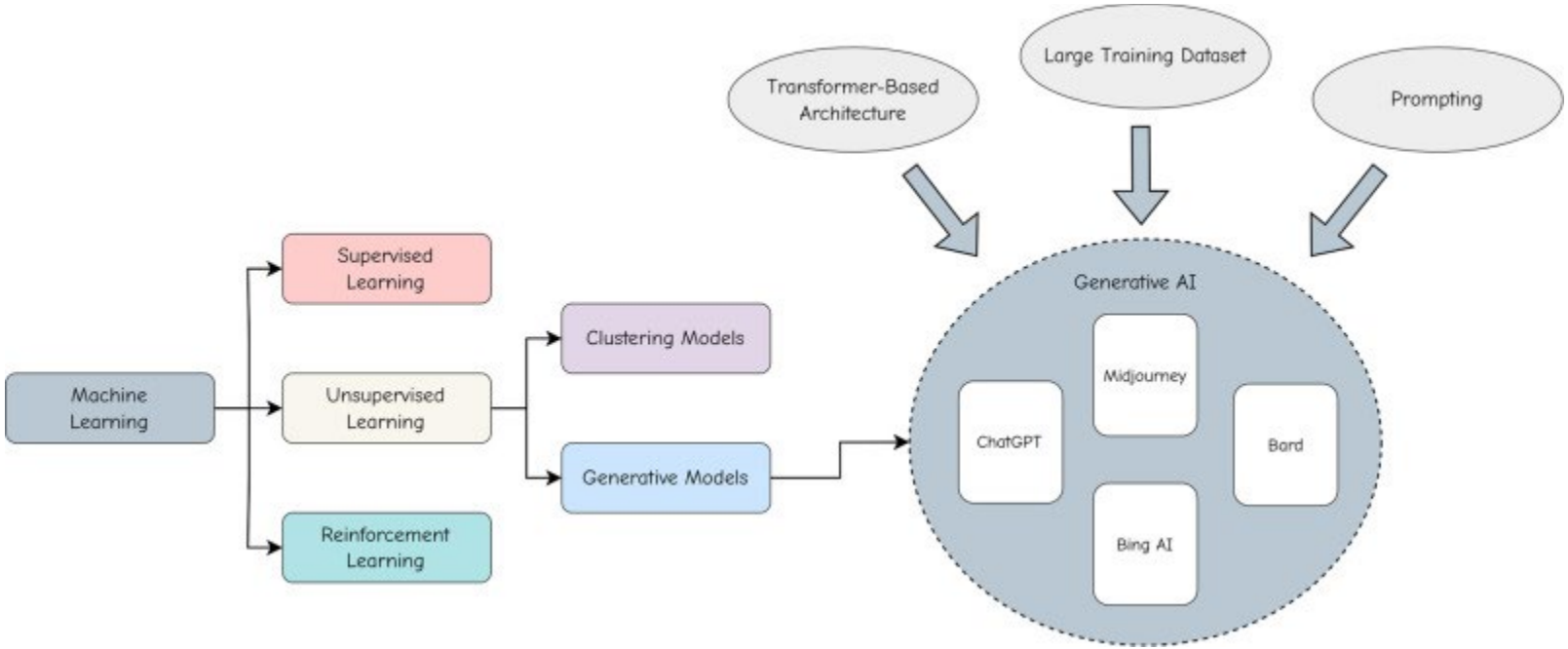
(BotPenguin, 2025)

Polling Question #1

Do you use Artificial Intelligence (AI) daily to assist with tasks?

A. Yes
B. No
C. Unsure if I am using AI

General Machine Learning and Generative AI



(Oniani et al., 2023)

Polling Question #2

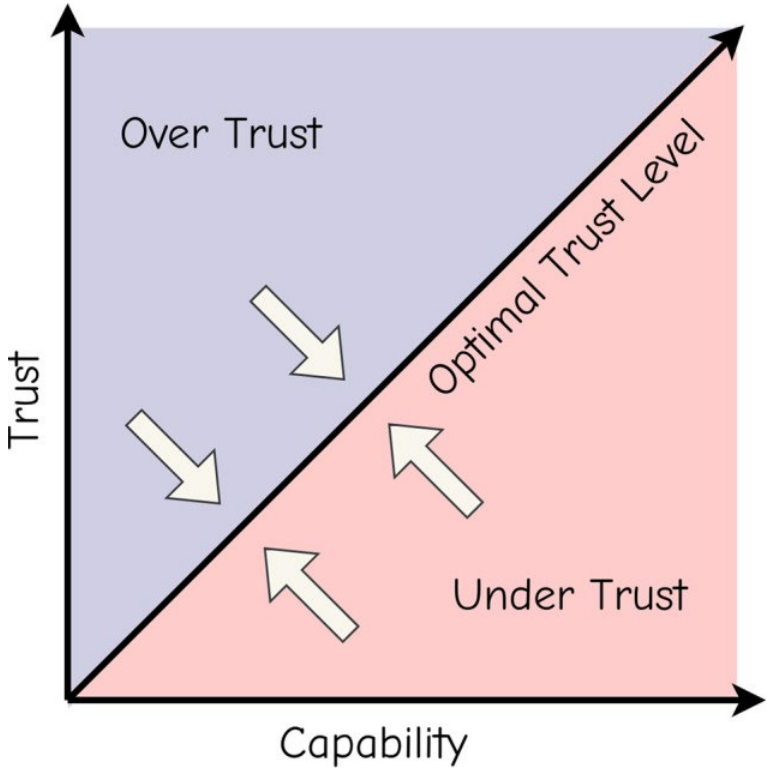
Would you trust AI to diagnose your medical condition based on your symptoms and exam findings?

A. Yes

B. No

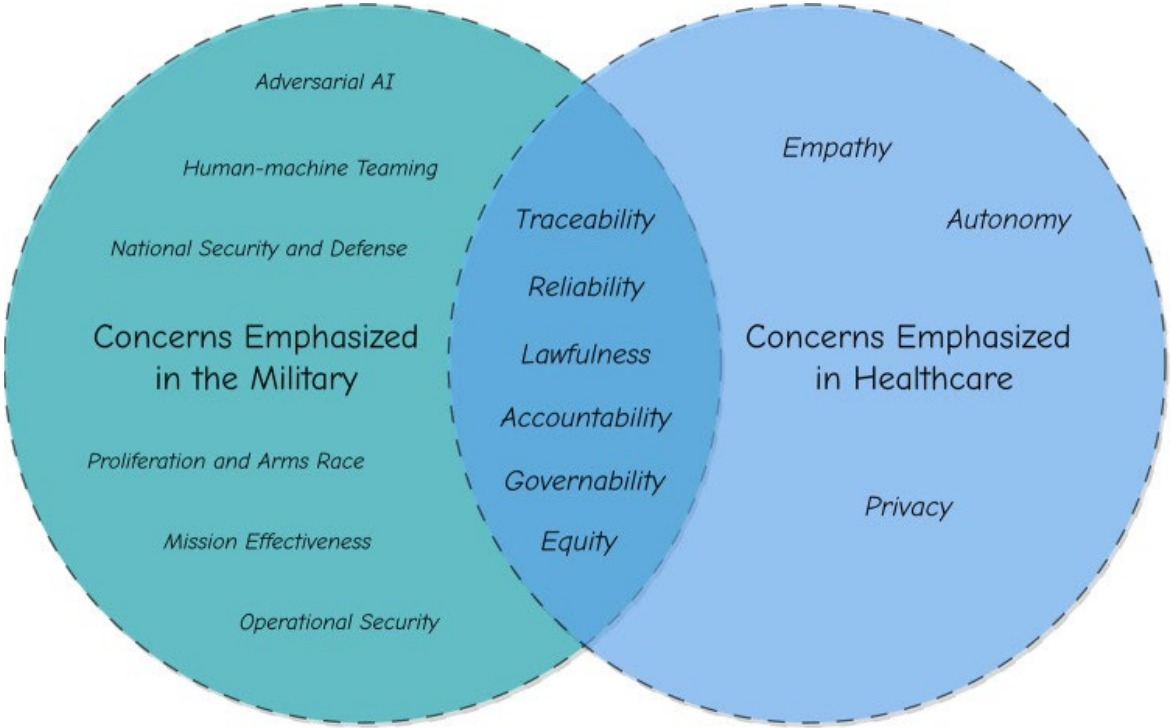
C. Maybe

Optimization of Trust in AI



(Oniani et al., 2023)

Ethical Principles from Military to Healthcare



(Oniani et al., 2023)

Ethical Principles – GREAT PLEA

Governability

Reliability

Equity

Accountability

Traceability

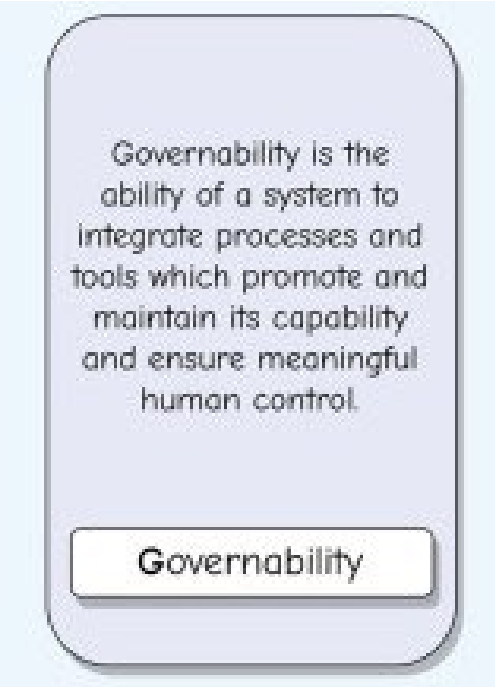
Privacy

Lawfulness

Empathy

Autonomy

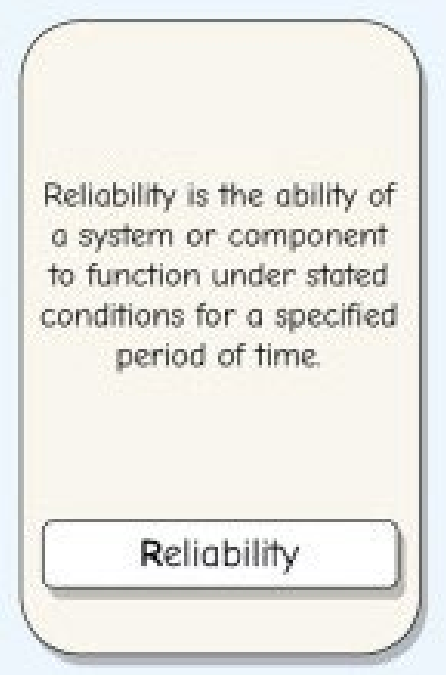
Ethical Principle – Governability



- Policy
- Process
- Oversight
- Accountability

(Oniani et al., 2023)

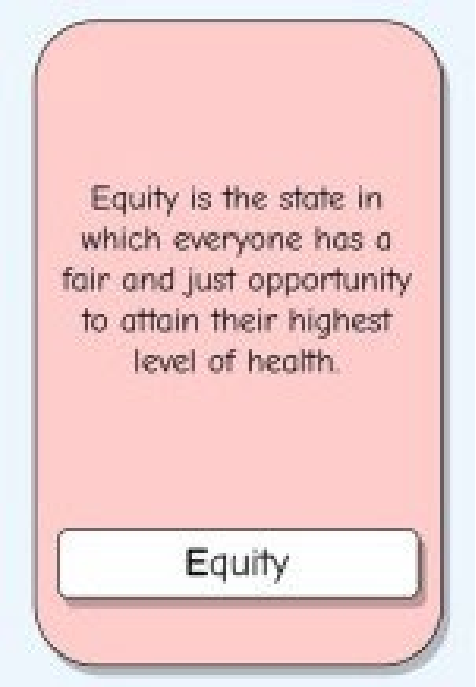
Ethical Principle – Reliability



- Consistent Accuracy
- Predictable Performance
- Error Handling

(Oniani et al., 2023)

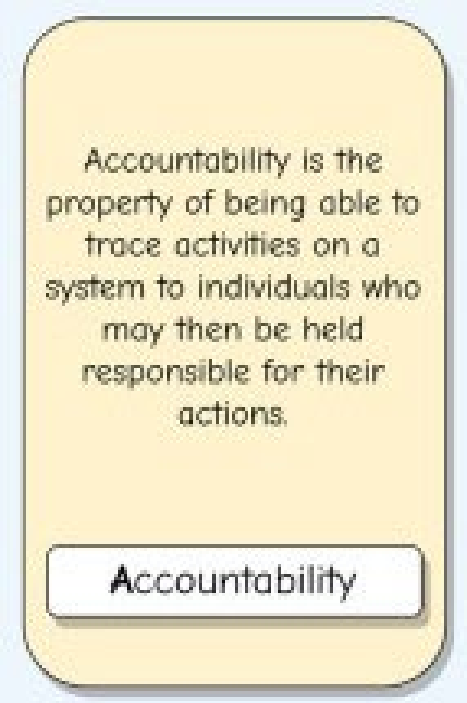
Ethical Principle – Equity



- Bias
- Fairness

(Oniani et al., 2023)

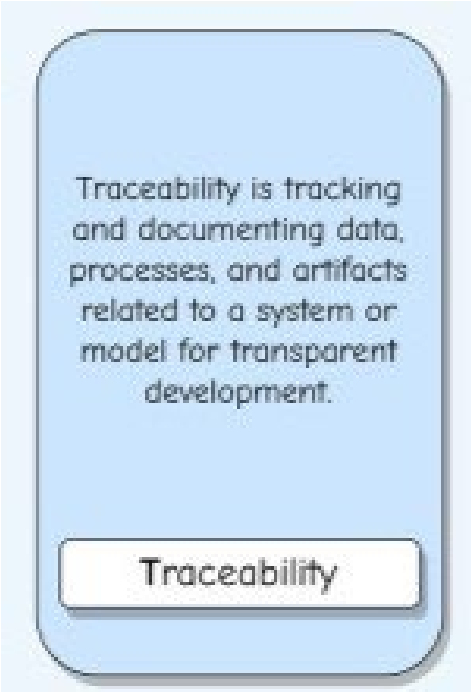
Ethical Principle – Accountability



- Clear lines of responsibility
- The AI developer
- The Vendor
- The Provider

(Oniani et al., 2023)

Ethical Principle – Traceability



- Decision-making process
- Understand the why

(Oniani et al., 2023)

Polling Question #3

Is it safe to share personal information or PHI with an AI chat bot?

A. Yes

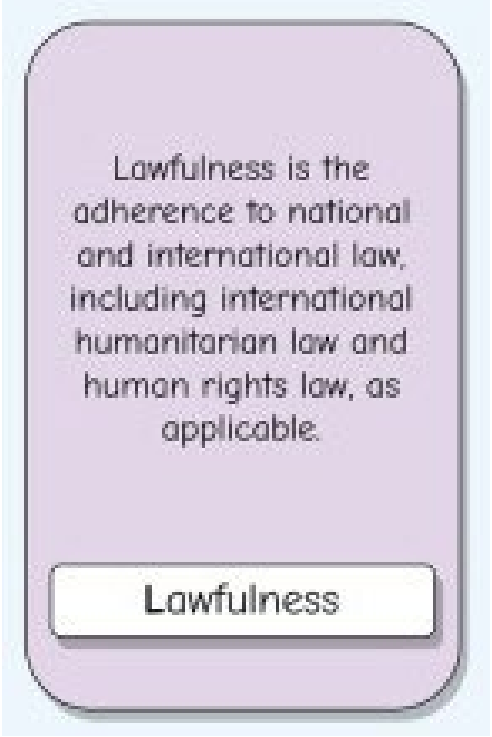
B. No

Ethical Principle – Privacy

- De-identification
- HIPAA
- Copyrights

(Oniani et al., 2023)

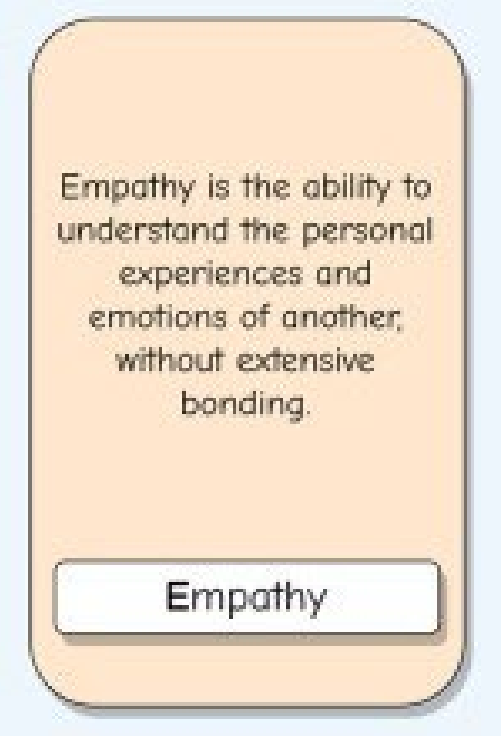
Ethical Principle – Lawfulness



- Compliance
- Don’t want to go to jail

(Oniani et al., 2023)

Ethical Principle – Empathy



- Adaptive responses
- Avoidance of judgement
- Careful language

(Oniani et al., 2023)

Polling Question #4

What is the name of the original AI military defense network that becomes self-aware and initiates a nuclear war in the movie Terminator?

A. Chat GPT
B. Skynet
C. Legion
D. Grok

Ethical Principle – Autonomy

- Fail-safe mechanisms
- Continuous monitoring
- Levels of autonomy

(Oniani et al., 2023)

Guardrails

- Privacy and security – HIPAA
- Regulatory compliance
- Trust
- Human oversight

Key Takeaways

- **Shared Ethical Concerns:** Both the military and healthcare sectors face remarkably similar ethical challenges when deploying GenAI, particularly regarding bias, transparency, accountability, and patient/soldier safety.

- **The GREAT PLEA Framework as a Foundation:** The GREAT PLEA framework (Governance, Responsibility, Explainability, Accountability, Transparency, Privacy, and Legality/Ethical Alignment) provides a robust and adaptable foundation for establishing ethical guidelines for GenAI.

- **Proactive Ethical Integration is Crucial:** Waiting to address ethical concerns *after* AI systems are deployed is insufficient. Proactive integration of ethical principles throughout the entire AI lifecycle, from development and acquisition to implementation and monitoring, is essential for building trust and ensuring responsible use.

References

BotPenguin. (2025). *Turing Test: Applications and Limitations.* In BotPenguin Glossary. https://botpenguin.com/glossary/turing-test

Oniani, D., Hilsman, J., Peng, Y., Poropatich, R. K., Pamplin, J. C., Legault, G. L., & Wang, Y. (2023). Adopting and expanding ethical principles for generative artificial intelligence from military to healthcare. *NPJ Digital Medicine*, *6*(1), 225. 10.1038/s41746-023-00965-x

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