

AI ethics: What's the buzz?

AI ETHICS



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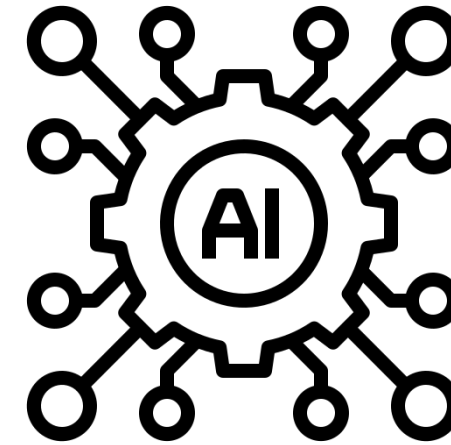
Intro to ethics

AI growth and the surge in public attention

AI ethics: A crucial discussion

Definition of ethics: Guiding behavior based on moral principles

The **intersection** of AI and ethics



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AI meets ethics

- AI revolutionizes various sectors:
 - Healthcare
 - Media
 - Insurance
- Examples
 - AI in healthcare - improves surgical accuracy, early disease detection
 - AI in finance - automates processing, fraud detection



¹ Icons made by Freepik, wanicon, Pixel perfect from www.flaticon.com

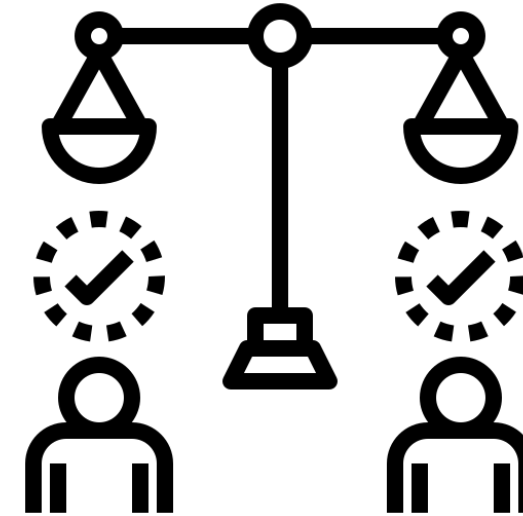
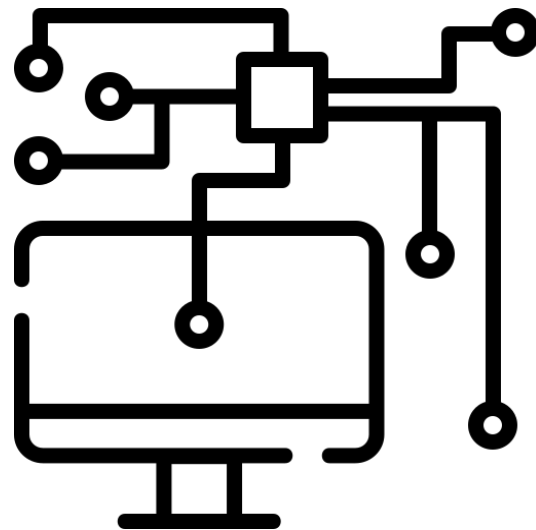
Why AI ethics?

- Why AI ethics?
 - Risks of unchecked biases, illustrated by insurance claim denial scenario
- Human influence on AI
 - Biases seep into decision-making
- Wider impact
 - Legal professions, judiciary, public decision-making



Ethics in practice

- Aligning AI systems with ethical principles
- Example:
 - Fairness in insurance model
 - Equal treatment for all claims

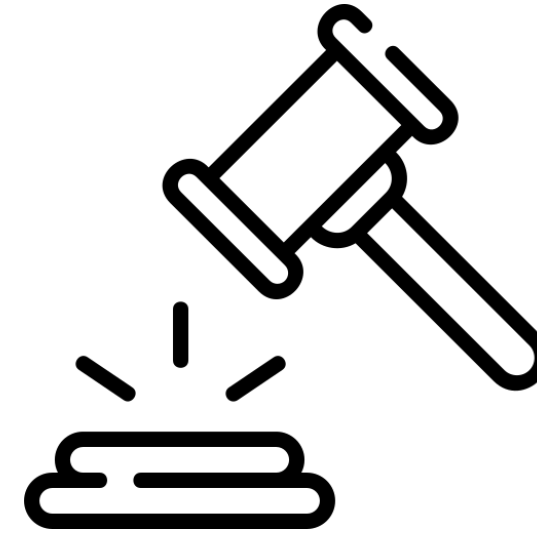


- Guidelines in Insurance, Finance, and Banking sectors
- Ethical boundaries for fair, unbiased results
- The potential of ethically built AI

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The big picture

- AI ethics: Beyond avoiding harm or bias
- Importance of accountability: Who is responsible for AI's outcomes and construction?

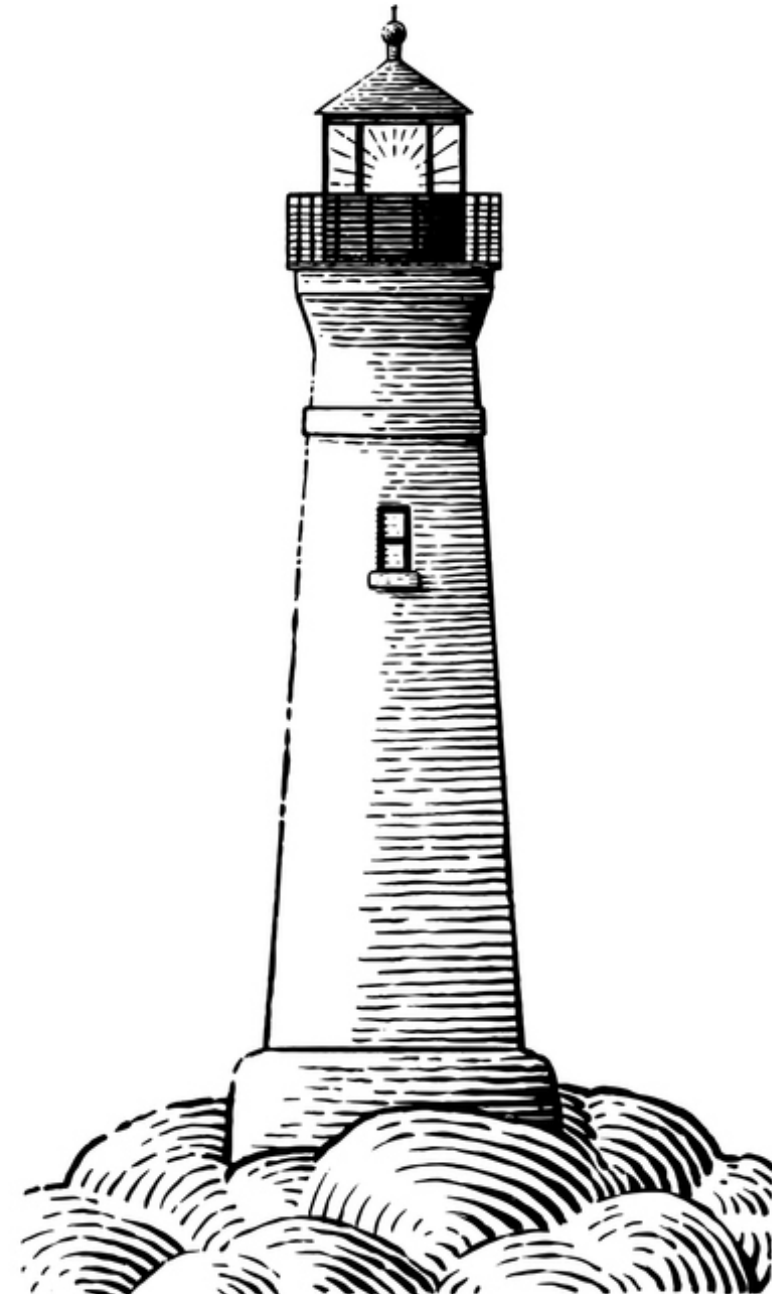


- The role of transparency: Understanding AI's decision-making process
- Need for transparency and literacy in AI development and results

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Wrapping up

- AI ethics: The guiding beacon in an AI-driven world
- Ensures benefits of AI without compromising moral values
- Ethical AI: Not just good practice, but good business



Let's practice!
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Digging deeper: AI ethics principles

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Meet MedTech Innovations

- MedTech Innovations
 - Healthcare company
 - Using AI to improve patient care and uphold ethics
- Personal reflections
 - Consider the application of AI ethics in...
 - Personal life
 - Career
 - Known businesses



The principle of fairness

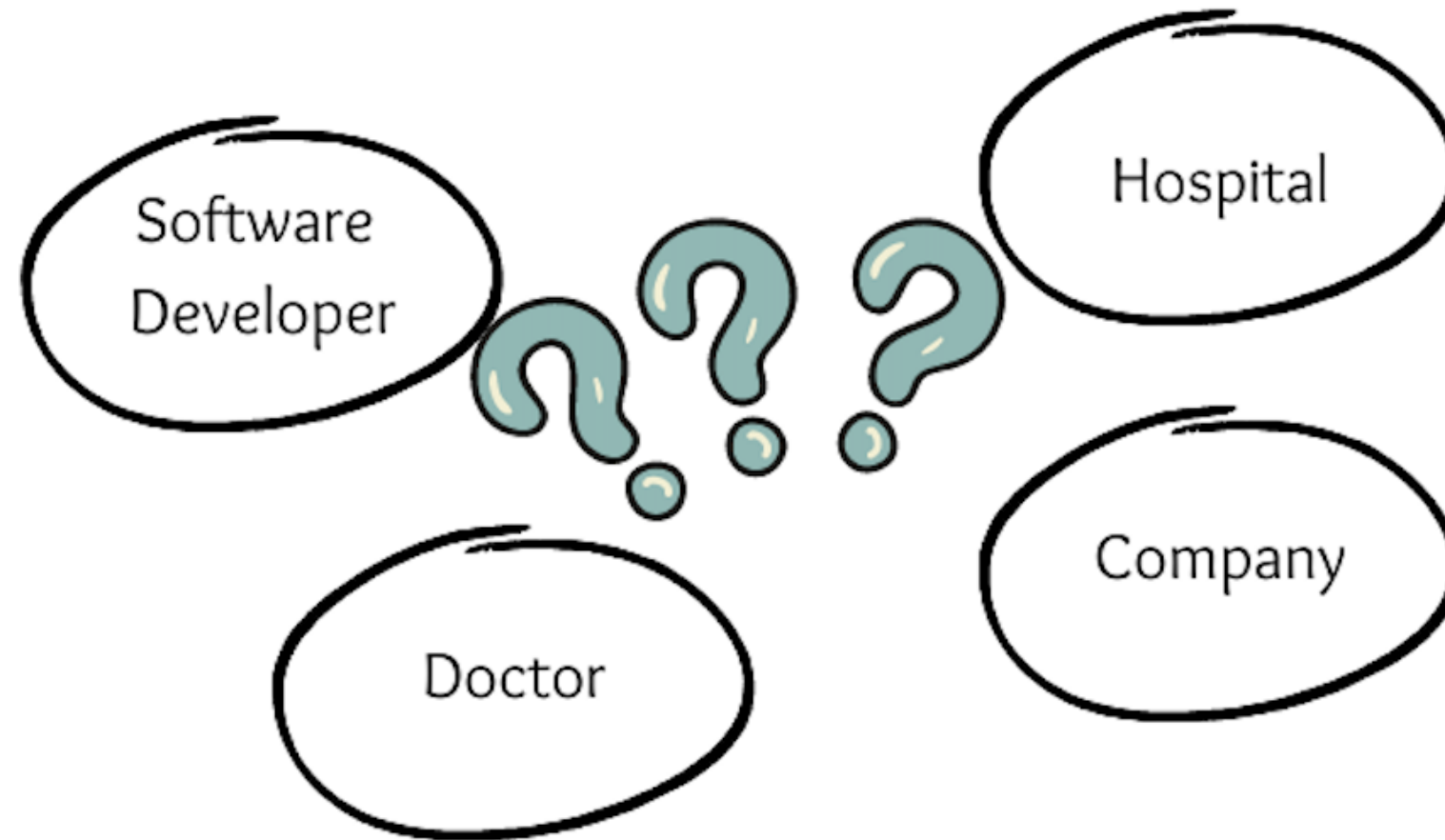
- MedTech's AI in patient care
 - Personalized treatment plans
- Challenge:
 - Unintentional **bias** in AI systems
 - Potential **discrimination**
- **Principle of fairness**
 - **Equal** treatment
 - Avoidance of discrimination

How to address these issues?

- ☒ Active engagement with AI systems
- ☒ Partner with AI
- ☒ Take responsibility
- ☐ ...
- ☐ ...

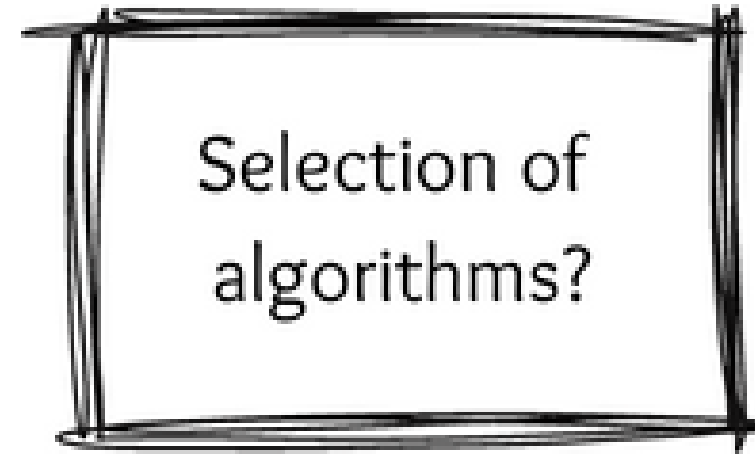
The principle of accountability

- Scenario: MedTech's AI system mistake affecting patient treatment
- **Principle of accountability:**
 - Someone should always be accountable for AI outcomes

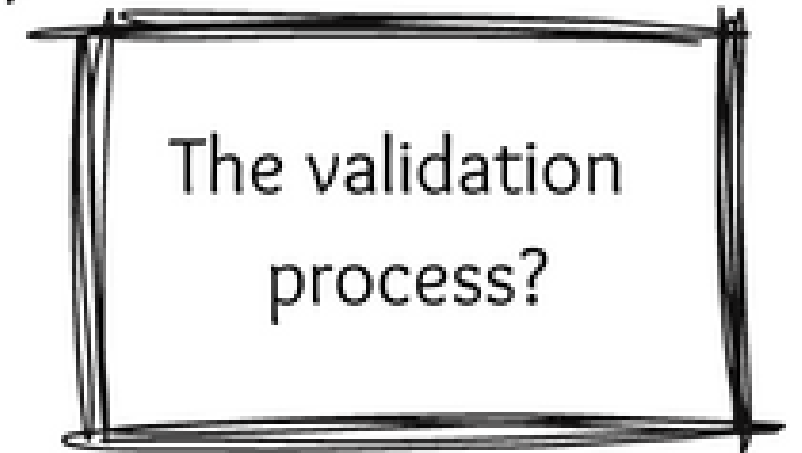


The principle of transparency

- Scenario: MedTech's AI system recommends a specific treatment
- Challenge: Understanding why AI made the decision
- **Principle of transparency:**
 - Decisions by AI should be explainable and comprehensible
 - Sharing knowledge and information across different stakeholders



Selection of algorithms?



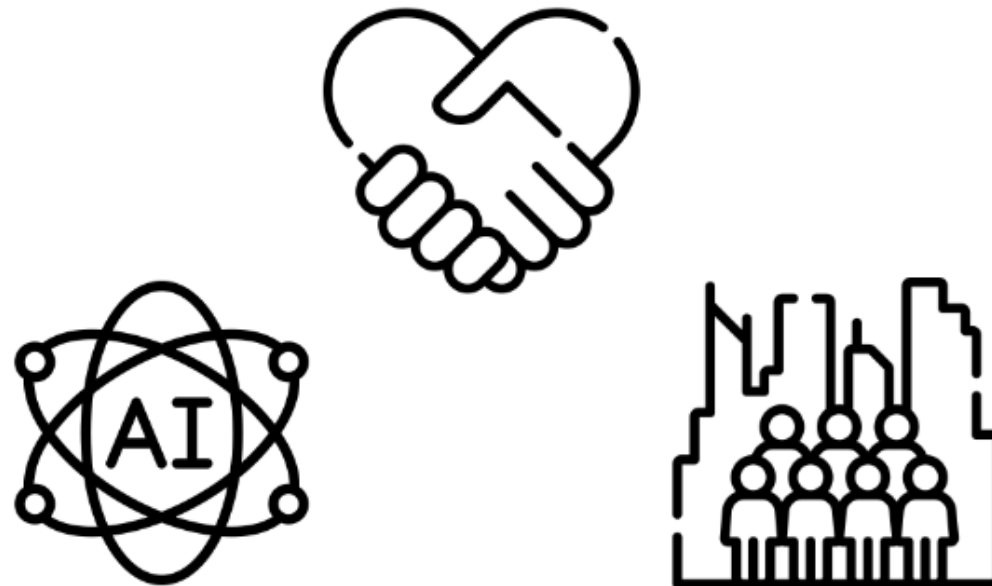
The validation process?

Applying AI ethics

- **Fairness:**
 - Continual testing of AI systems to detect and rectify bias
- **Accountability:**
 - Clear responsibilities defined for each AI system's outcomes
- **Transparency:**
 - Make AI systems explainable and understandable
- **Commitment:**
 - Ethical adherence builds trust, mitigates risks

Why do they matter?

- **Understanding & applying principles:** Ensures ethical AI use
- **Building trust:** Transparency and accountability foster patient trust
- **Mitigating risks:** Ethical AI use reduces potential risks
- **Promoting AI:** Transparency and knowledge-building enhances societal trust and utilization of AI



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AI ethics: where's the line?

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The privacy-personalization paradox

- AI personalizes user experiences, enhancing appeal
- The **privacy-personalization paradox**
 - Personalization can compromise user privacy
- Solution:
 - AI literacy
 - Clear privacy policies
- Example: Spotify



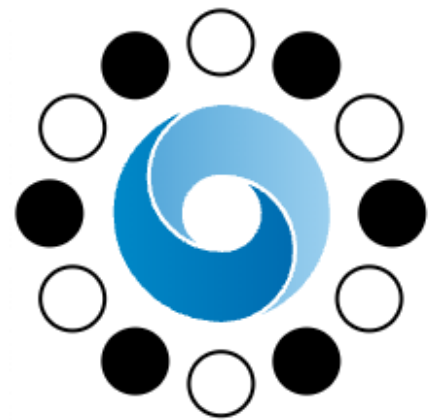
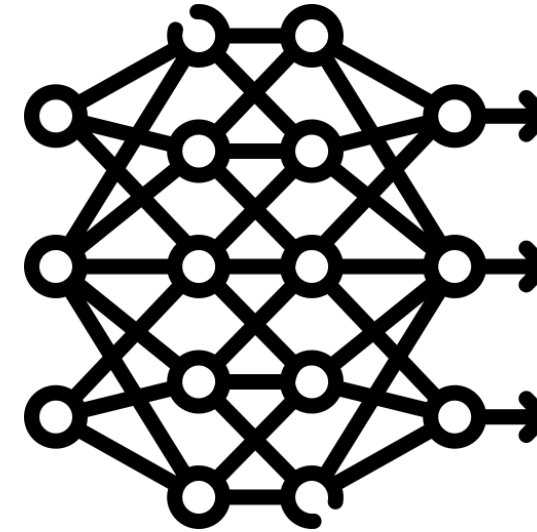
The bias-fairness conundrum

- Bias-fairness conundrum:
 - AI learns from data that can carry societal biases
- Result:
 - AI may unintentionally amplify these biases
- Example:
 - Early versions of ChatGPT
- Solution:
 - Train AI models with fairer, bias-free data



The transparency-complexity trade-off

- Transparency-complexity trade-off:
 - Complex AI models lack transparency but are highly accurate



AlphaGo

- Simpler models are more transparent but less accurate
- AI literacy is vital for comprehension and ethical implications

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The autonomy-control dilemma

- **Autonomy-control dilemma:**
 - AI can act autonomously but might operate outside human control
- **Question:**
 - Should we prioritize autonomy or control?
 - No one-size-fits-all answer
- **Example:**
 - Tesla's Autopilot system emphasizes driver vigilance and readiness to take control



Navigating the challenges

- Navigating ethical dilemmas in AI requires thoughtful **trade-offs**
- Importance of **human element** in decision-making
- Striving for better decisions in complex situations
- Need for **diverse stakeholders' involvement** and **continuous AI monitoring**

Let's practice!
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