

Name _____



Ethical Algorithms

Directions: Read the informational passage carefully. Answer the vocabulary-based questions that follow using evidence from the text.

Artificial Intelligence Ethics

Artificial intelligence, often called AI, is increasingly used to make decisions that affect everyday life. Algorithms now help determine which job applicants are reviewed, which posts appear on social media feeds, and how traffic patterns are managed in large cities. Because these systems operate at such a large scale, their design choices can have widespread consequences.

One major ethical concern is **bias**. AI systems learn from existing data, and if that data reflects unfair patterns, the system may reinforce those inequalities. For example, a hiring algorithm trained on past employment records may favor certain groups while disadvantaging others. This outcome may occur even when the designers did not intend discrimination.

Another key issue is **transparency**. Many advanced AI models function as complex systems whose internal decision-making processes are difficult to explain. When people cannot understand how a decision was reached, it becomes challenging to question errors or demand accountability. As a result, trust in these systems may weaken.

Ethicists also debate the concept of **autonomy** in relation to AI. While machines can act independently within programmed limits, humans still hold responsibility for their actions. Determining where human oversight should remain essential is a critical question, especially in fields such as healthcare, law enforcement, and transportation.

To address these concerns, researchers advocate for **regulation** and ethical guidelines. These frameworks aim to balance innovation with responsibility, ensuring that AI systems are developed and used in ways that respect human rights and social values.

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Vocabulary in Context: Choose the best answer for each question.

1. In the passage, the word **bias** most nearly means:
A) personal opinion expressed openly
B) unfair preference built into a system
C) technical error caused by software failure
D) intentional rule created by lawmakers
2. The word **transparency** is used to describe:
A) how fast an AI system processes data
B) how affordable an AI system is to users
C) how clearly a system's decisions can be understood
D) how often a system updates its information
3. Based on the passage, **autonomy** refers to:
A) the independence of machines within set boundaries
B) the ability of AI to replace human judgment entirely
C) the removal of ethical rules from technology
D) the legal rights of software programs
4. In the final paragraph, **regulation** most closely means:
A) complete control that stops technological growth
B) random rules that vary by situation
C) organized rules meant to guide responsible use
D) suggestions that users may ignore

Vocabulary Evidence Check: Answer each question in 1-2 complete sentences.

1. Which phrase in the passage best supports the meaning of **bias** as unfairness? Quote it and explain.
2. How does the description of AI as a "complex system" help clarify the meaning of **transparency**?

Vocabulary Application: Answer in 2-3 sentences.

Choose **one** vocabulary word from the passage. Explain how misunderstanding this word could lead to confusion about AI ethics.