
Passage

Artificial Intelligence, often abbreviated as AI, stands as one of the most transformative achievements of the modern age. It embodies humanity's aspiration to endow machines with cognitive faculties once thought exclusive to human minds—perception, reasoning, problem-solving, and adaptability. Whereas conventional automation is bound to inflexible instructions, AI distinguishes itself through its capacity for self-improvement: it learns from new experiences, adjusts its strategies, and hones its precision over time. This rare adaptability has allowed AI to permeate diverse realms, from global financial systems to the life-preserving accuracy of medical diagnostics.

The genesis of AI lies in a bold vision—to replicate the intricate workings of human intellect within the architecture of computation. In the mid-twentieth century, early innovators sought to encode decision-making into formal algorithms, convinced that logic could encapsulate thought. Yet it was the advent of artificial neural networks and deep learning in the twenty-first century that marked a turning point. Inspired by the human brain's structure, these systems can sift through colossal datasets, uncover patterns invisible to conventional computation, and generate solutions of remarkable sophistication.

Yet the march of AI is not an unalloyed blessing. Its proliferation stirs weighty ethical debates: the sanctity of privacy, the fairness of automated judgments, and the unsettling displacement of human labour. Left unguided, AI could deepen societal inequities or evolve in directions unmoored from human values. Conversely, when governed with foresight and moral clarity, it can serve as a potent ally in confronting humanity's gravest challenges—climate instability, pandemics, and resource scarcity among them.

Looking ahead, AI's trajectory is poised to converge with other emerging frontiers—quantum computing, biotechnology, and advanced robotics. Such synergies could unleash breakthroughs of unprecedented magnitude: instantaneous disease detection, sustainable energy systems of unparalleled efficiency, and simulations that unravel the cosmos's deepest enigmas. But progress without prudence courts peril. The technologies that might elevate civilisation could equally imperil it if divorced from ethical stewardship.

Thus, the tale of AI is not merely a chronicle of technological ascendancy. It is also a moral narrative, in which the triumph of invention must be matched by the wisdom of governance. In striking the delicate balance between innovation and guardianship lies the

key to ensuring that AI remains a servant of humanity's highest ideals, rather than a master of its fate.

Multiple Choice Questions

1. Which ability allows AI to enhance its performance over time?

- A. Pre-programmed logic
- B. Adaptive learning
- C. Fixed instruction execution
- D. Manual data entry

2. Which innovation in AI draws inspiration from the human brain's architecture?

- A. Quantum algorithms
- B. Neural networks
- C. Data encryption
- D. Cloud computing

3. What key factor differentiates AI from traditional automation?

- A. Human supervision
- B. Ability to adapt and learn
- C. Smaller processing capacity
- D. Pre-set operational speed

4. Which ethical issue is raised concerning AI's involvement in judgment-making?

- A. Increased hardware costs
- B. Risk of biased decisions

C. Excessive manual labour

D. Decline in machine accuracy

5. In which century did pioneers first attempt to encode decision-making into algorithms?

A. 18th century

B. 19th century

C. 20th century

D. 21st century

6. What potential danger might arise if AI operates without ethical guidance?

A. Slower innovation

B. Decrease in computing speed

C. Societal inequalities

D. Higher energy cost

7. Which of the following is NOT cited as a future partner technology to AI?

A. Quantum computing

B. Biotechnology

C. Advanced robotics

D. Agricultural irrigation

8. How could AI potentially contribute to combating climate change?

A. Predicting weather patterns

B. Increasing fossil fuel usage

C. Expanding urban areas

D. Reducing renewable energy

9. What general tone does the author adopt towards the growth of AI?

A. Purely optimistic

B. Balanced and cautious

C. Entirely negative

D. Indifferent

10. According to the passage, what must accompany innovation to ensure AI benefits society?

A. Ethical governance

B. Unlimited funding

C. Complete deregulation

D. Reduced research

Vocabulary-based MCQs

11. In the context of the passage, the term genesis most nearly means:

A. Decline

B. Origin

C. Challenge

D. Limitation

12. The phrase unalloyed blessing is best understood as:

A. A mixed advantage

B. A pure advantage

C. A disguised danger

D. A temporary gain

13. The word permeate most nearly means:

A. To avoid

B. To spread through

C. To examine

D. To control

14. The word synergy suggests:

A. Conflicting forces

B. Combined effect greater than individual efforts

C. Mechanical repetition

D. Sudden failure

15. In moral narrative, the word narrative refers to:

A. A sequence of events

B. A personal opinion

C. A scientific theory

D. An unsolved mystery