Document Title: Introduction to Artificial Intelligence



What is Artificial Intelligence?

Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think and learn like humans. It encompasses a wide range of technologies such as machine learning, natural language processing, computer vision, and robotics.

Applications of AI

- 1. **Healthcare** Diagnosing diseases, personalized treatment, drug discovery.
- 2. **Finance** Fraud detection, algorithmic trading, credit scoring.
- 3. **Retail** Chatbots, product recommendations, customer behavior prediction.
- 4. **Transportation** Self-driving cars, traffic pattern analysis.
- 5. **Education** Smart tutoring systems, automated grading.

Types of AI

- Narrow AI: Performs specific tasks (e.g., virtual assistants).
- General AI: Can perform any intellectual task a human can do (still theoretical).
- Superintelligent AI: Surpasses human intelligence (a future concept).

Market Growth

The global AI market size was valued at USD 150 billion in 2023 and is projected to grow at a CAGR of 37.3% from 2024 to 2030, driven by innovation and demand across industries.

Summary

Artificial Intelligence is transforming the world across every sector. From improving customer service with chatbots to enabling medical breakthroughs, AI is the backbone of the Fourth Industrial Revolution.

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