

Artificial Intelligence Basics:

Day 2

Exploring the fundamentals of AI, ethical considerations, and future career paths.



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Session 1: Basics of Machine Learning

What is Data?

Data is information machines use to learn. It comes in various forms:

- Text (names, emails)
- Numbers (age, temperature)
- Images (photos)
- Sounds (voice recordings)

How Do Machines Learn?



1. Training

Machines learn patterns from many examples (training data).



2. Prediction

After learning, the machine makes new guesses or predictions.

For example, showing a machine labeled pictures of apples and oranges helps it identify new fruits.

Types of Machine Learning



Supervised Learning

Learns from labeled data (input + correct output), like classifying spam emails.



Unsupervised Learning

Finds patterns in unlabeled data, such as grouping customers by behavior.



Reinforcement Learning

Learns by trial and error with feedback (reward/punishment), like teaching a robot to walk.

Session 2: Ethical Considerations in AI

What is AI Ethics?

Using AI responsibly, fairly, and safely for everyone.



Bias in AI

Unfair training data leads to unfair AI, e.g., facial recognition bias.



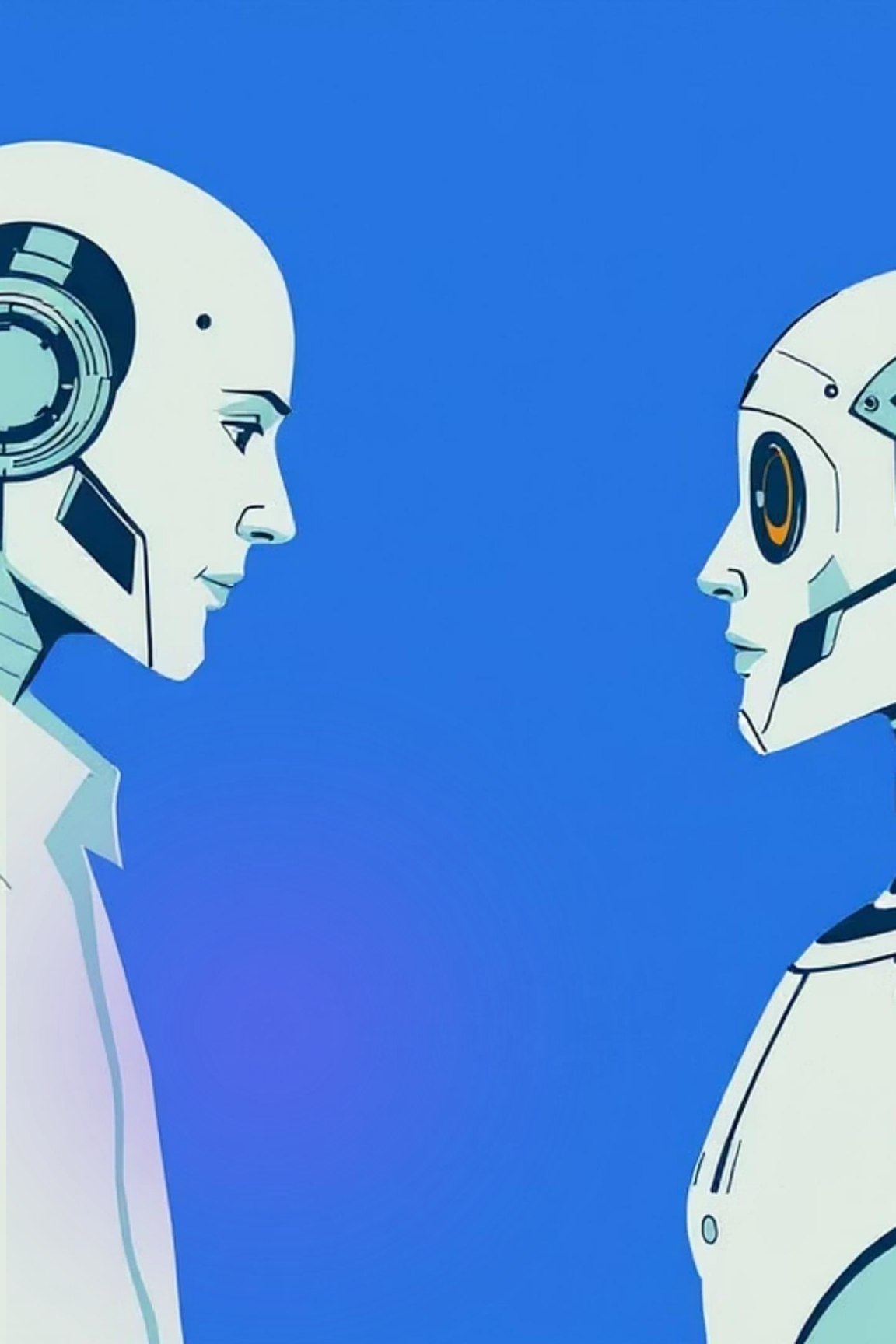
Privacy Concerns

AI uses personal data; it must not misuse or leak private information.



AI & Jobs

AI may replace repetitive jobs but will also create new ones.



Responsible AI Use

- Be honest about AI's capabilities.
- Always verify AI results; it can make mistakes.
- Do not use AI to cheat, harm, or manipulate others.

Session 3: Career Paths & Future of AI

Skills for AI

Logical Thinking

Problem Solving

Basic Math

(Statistics, Algebra)

Coding

(Python)

Popular AI Job Roles

- AI Engineer
- Data Scientist
- AI Researcher
- Product Manager

How to Start Learning AI

Start with Basics

Begin with basic coding (Python, Scratch).



Explore Online Platforms

- Coursera, edX
- YouTube (free tutorials)
- Teachable Machine (for beginners)



Practice Projects

Build small projects like image recognition or chatbots.

