

# W 1.1

⊿ course	<u> </u>
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Date	@February 15, 2024
🔆 Status	Not started

# **Notes**

# **Imagined AI vs Real AI**

Imagined Al	Real Al
- Al created by human imagination	- Al with practical impacts on real-world applications
- Found in fiction, movies, games, or art	- Meets certain criteria or standards for functionality
- Examples: Al art generators, futuristic Al	- Examples: Al in healthcare, customer service
- Explores potential of AI in various domains	- Explores AI characteristics, challenges

# What is Intelligence?

- **Definition**: Ability to solve problems, think, plan, and manipulate information.
- **Scenarios**: Problem-solving (e.g., maze navigation), thinking, planning, memory manipulation.
- **Expertise**: Efficient information manipulation (e.g., expert systems, fingerprint recognition).

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• **Learning**: Recognition and pattern recognition (e.g., machine learning).

### **Intelligent Machines**

- Capabilities: Problem-solving, planning, diagnosis, pattern recognition.
- **Examples**: Search algorithms, diagnosing, recognizing fingerprints.
- Significance: Mimics human-like behavior, advances AI technology.

#### **Formal Definition for AI**

- **Definition**: Science and engineering of making intelligent machines.
- Objective: Building entities capable of intelligent behavior.
- Aim: Develop systems beyond biological observability.

### Strong Al vs Weak Al

Strong Al	Weak Al
- Hypothetical AI with human-like abilities	- Al performs specific tasks
- Examples: Alexa, Netflix, Gmail	- Examples: Chess-playing AI, virtual assistants
- Creativity, self-awareness	- Task-specific functionality

### **Al Applications**

- **Domains**: Robotics, vision, logical systems, decision making.
- **Examples**: Object recognition, medical diagnosis, game playing.
- Impact: Revolutionizes industries, enhances efficiency.

### **History of Al**

- Pre-History: Contributions from philosophy, mathematics, psychology, engineering.
- **Milestones**: Birth of AI (1956), development of Lisp, microworlds.
- **Significance**: Lays foundation for subsequent advancements.

## **Development Milestones**

- Birth of AI (1956): Dartmouth Workshop pioneers AI research.
- General Problem Solver (GPS): Mimics human problem-solving.
- **Development of Lisp:** Dominant AI programming language.

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