HISTORY AND EVOLUTION OF ARTIFICIAL INTELLIGENCE

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ASSIGNMENT # 01

EARLY FOUNDATION OF AI:

- **1950-Alan Turing:** He created a test to check whether a machine can think like a human. This is called Turing Test.
- **1956-Dartmouth Conference:** The event where Artificial Intelligence was officially proposed as a new field of research.
- **Early AI**: In the beginning, AI worked only on rules and logic.

“AI was founded in the 1950s, when people first began to wonder whether machines could think like humans.”

RULE-BASED & EXPERT SYSTEMS (1960 – 1980)

"AI In This Era Was Not Smart. It Only Followed Rules, So It Could Not Solve General Problems."

- During This Period, AI Worked Only By Following Predefined Rules.
- If You Taught The Machine 100 Rules, It Could Perform Only Those Exact 100 Rules.

MACHINE LEARNING (1990 – 2010)

- Shift from rule based systems to learning from data.
- Natural networks made a comeback.
- ML algorithms likes SVMs, Decision Trees, and Deep learning became popular.

"AI started learning from data, and this is where the journey of modern AI truly begins."

DEEP LEARNING BREAKTHROUGHS:

“This era made AI progress extremely fast.

In 2012 was a major turning point for AI.

Deep Learning changed everything, Alexnet brought a revolution in image recognition.

GPUs and big data made models much more powerful.

Computer Vision, Speech, and Language technologies all improved.”

LARGE LANGUAGE MODELS (LLMs):

“LLMs like GPT learn from massive amounts of data from around the world and generate intelligent, human-like responses.”

LLMs WORKs:

- AI breaks text to small pieces called tokens to understand it.
- Self-supervised learning AI learns by predicting the next word.
- Attention mechanism helps AI know which words to focus on.

“LLMs don’t actually understand text, but they learn patterns so well that they can generate human like responses.”

RISE OF AGENTIC AI:

“Agentic AI represents the future AI can think for itself and perform tasks autonomously.”

- AI no longer just provided answers it can perform tasks.
- AI agents can use tools and APIs
- They can make decisions and execute tasks
- Multi-agent collaboration is possible.

CONCLUSION:

“The journey of AI has progressed from simple rules to highly intelligent agents, and in the future, AI will become even stronger and more useful.”