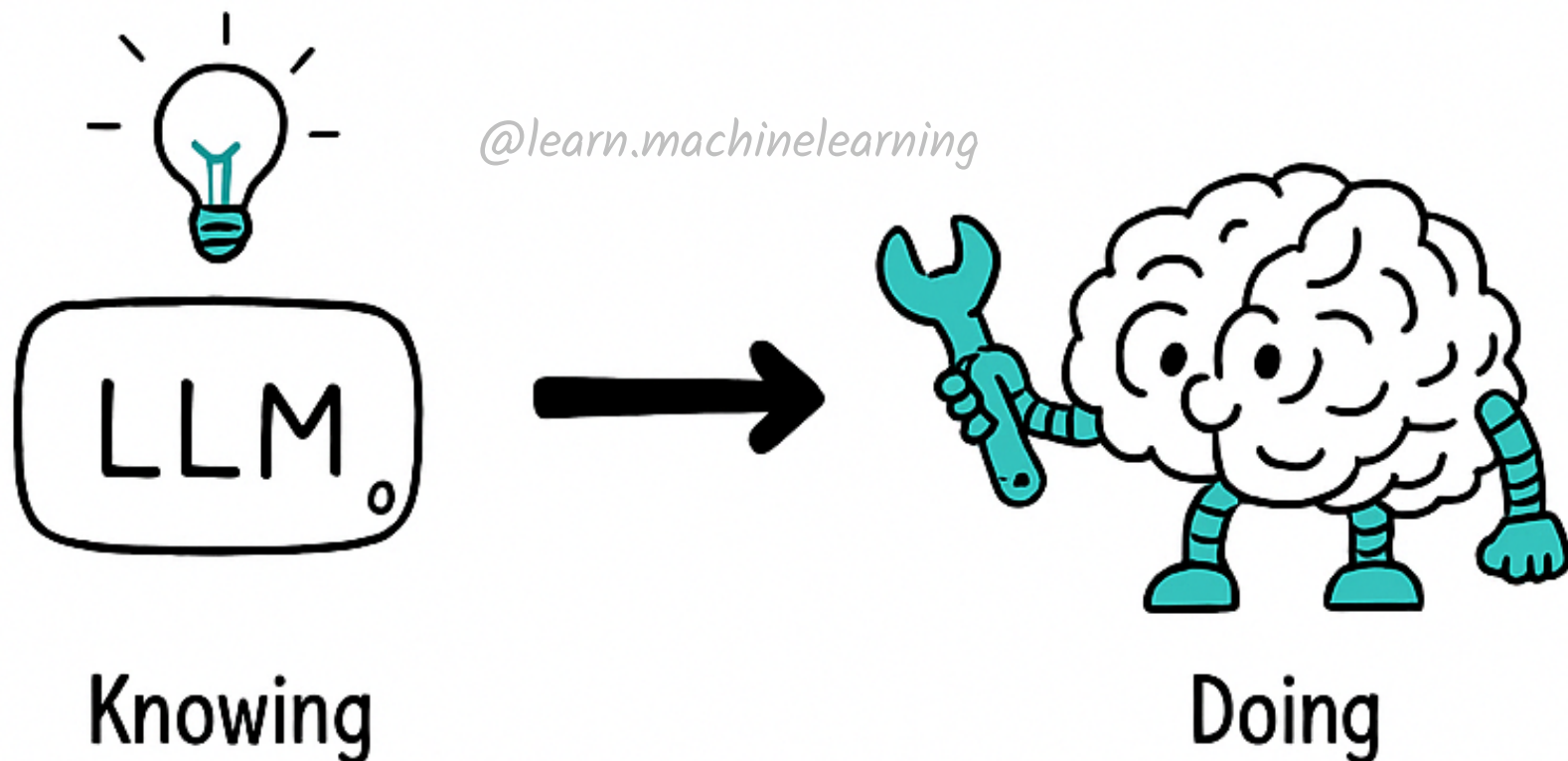


GENERATIVE AI SERIES: DAY 25

The AI Agent Deep Dive: What is an AI Agent?

We've taught AI how to answer questions. Now let's teach it how to get things done.

Welcome to the exciting world of AI Agents! 🤖



From Answering to Acting

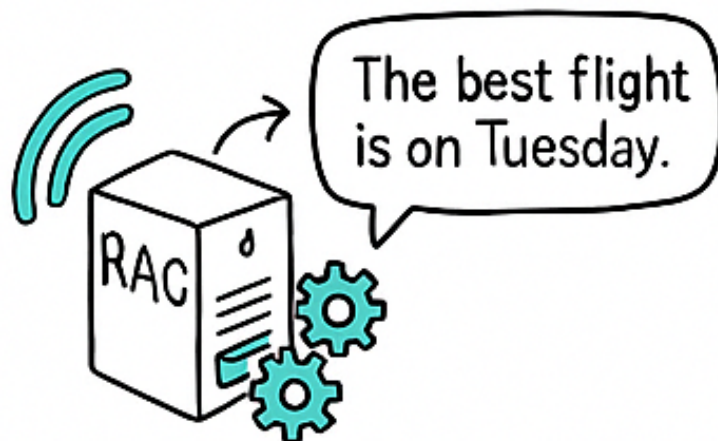
Our RAG system was an expert **knower**.
It could find and summarize information to answer any question.

Limitation: It can't **act** on that information.

The Next Step: AI Agents are expert **doers**.
They don't just provide information; they use it to perform tasks.

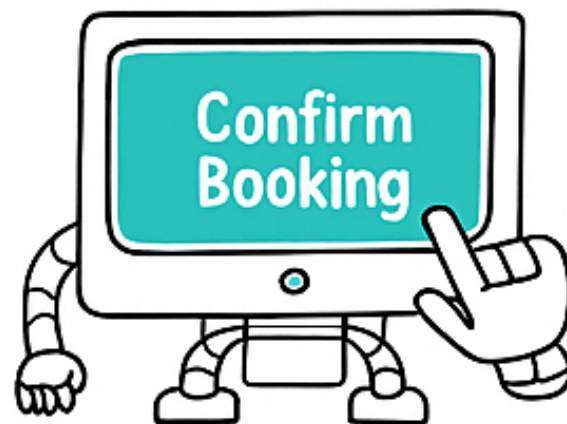
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Answering



Answering

Acting

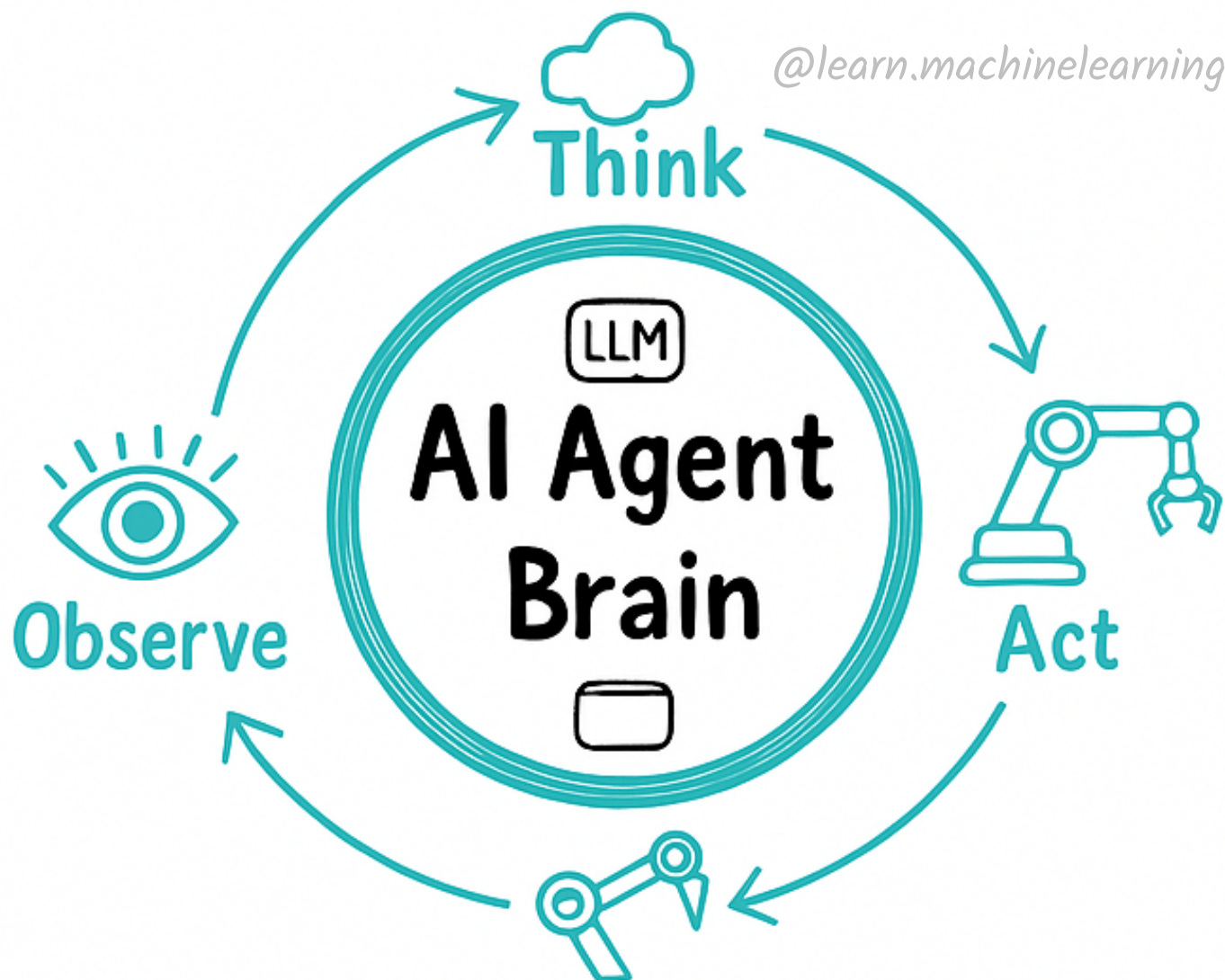


A tool

So, What Exactly IS an Agen?

An AI Agent is a system that uses an LLM as reasoning engine to achieve a goal. it observes its exvironment, plans a set of tools

It's cycle: Think → Act → Repeat.



An Agent is Nothing Without Its Tools

Tools' are the key that unlocks an agent's ability to act. A tool is any resource the LLM can call on to interact with the world beyond its own knowledge

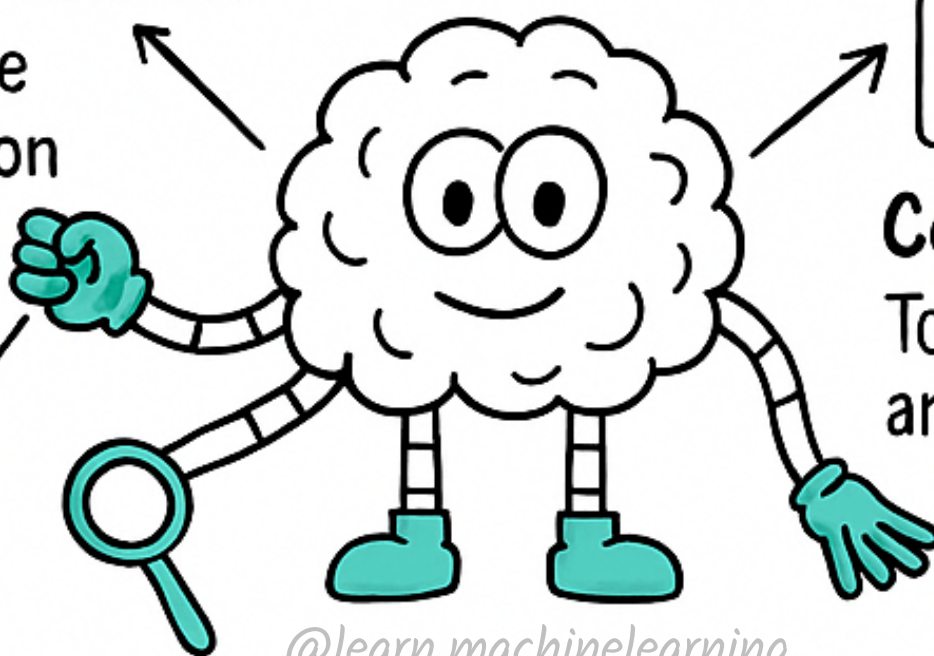
Web Search:

To get live information



Calulator

To perform preccise math



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Code Execution

To run scripts or analyze data



... and even
your entire RAG System

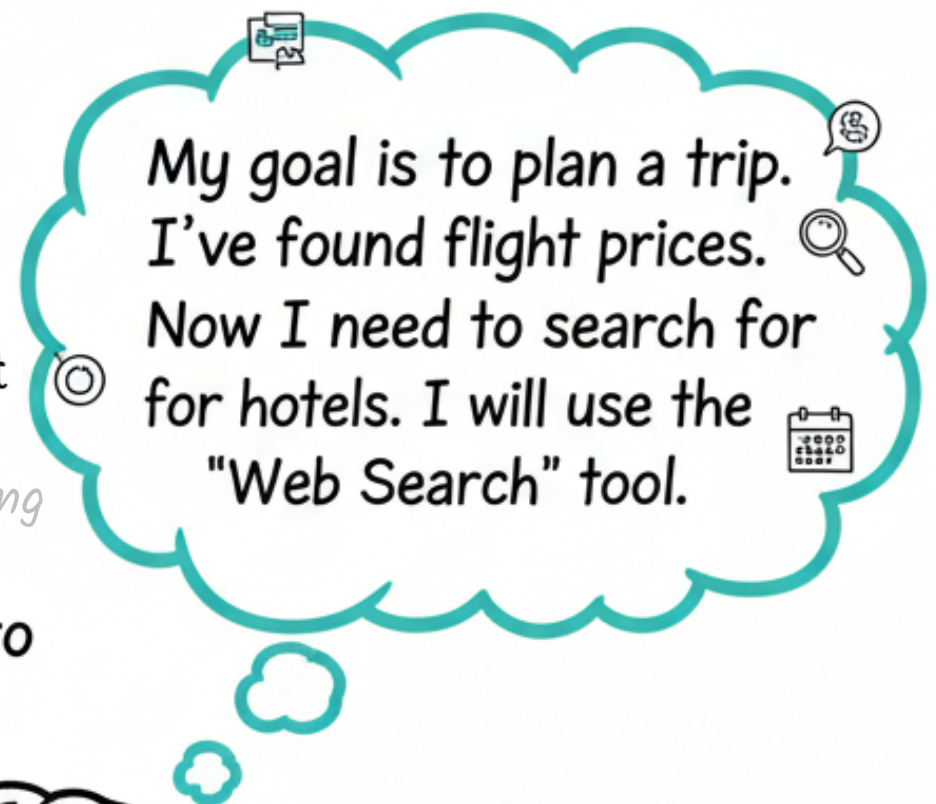
The LLM is the Central Coordinator

The LLM is the heart of a agent.
At every step, it asks itself:

- What is my ultimate goal?
- Based on my last action, what's the current situation?
- Which tool should I use right now to get ot closer to goal?

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This *Step-by-step* reasining allows it to navigate complex, multi-step tasks.



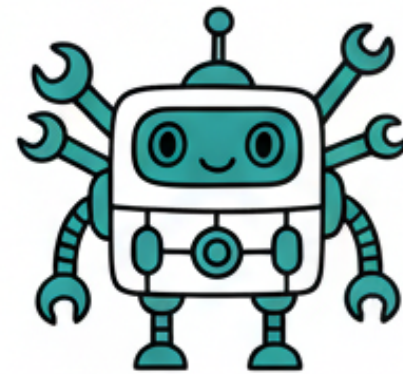
RAG vs. Agent: A Clear Distinction



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RAG System

- Goal: Answer a question.
- Process: Retrieve relevant documents & synthesize an answer.
- Analogy: An open-book exam taker.



AI Agent

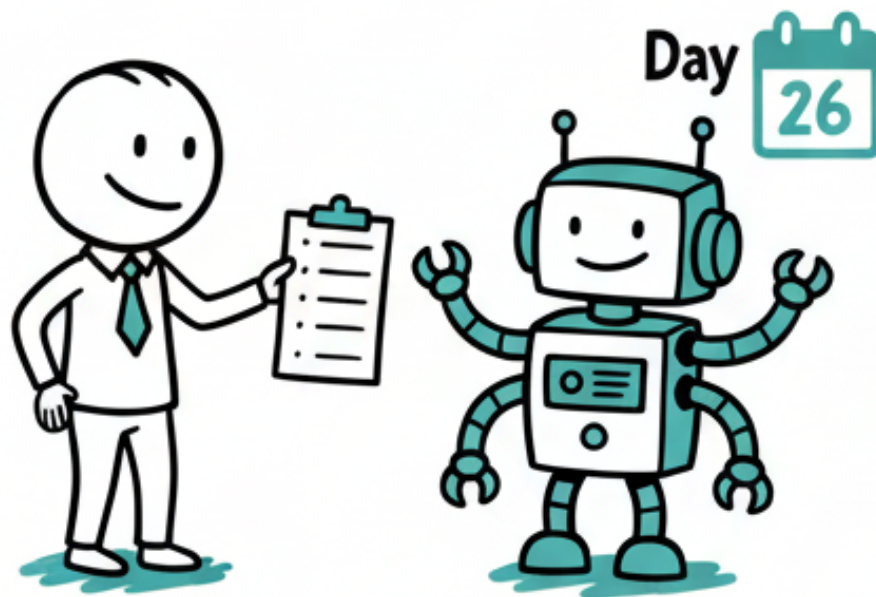
- Goal: Complete a task.
- Process: Reason, select a tool, act, and repeat until the goal is met.
- Analogy: A personal assistant with a toolbox.

GENERATIVE AI SERIES: DAY 25

Day 25 Takeaway: Agents are AI's Hands and Feet!

AI Agents represent a major leap from passive knowledge retrieval to active problem-solving. By giving an LLM a goal, a set of tools, and the ability to reason, we create a system that takes meaningful action on our behalf.

Next Up: Day 26:
The Anatomy of
An Agent:
Breaking Down the
Core Components



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If you had a personal AI agent for day, what's FIRST task you'd have it do? Let me know! ↓

Follow @learn.machinelearning for the full AI Agent Deep Dive!
SAVE this post to understand the future of AI



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