



Embarking on a Journey with

AGENTS AND IT'S THERES

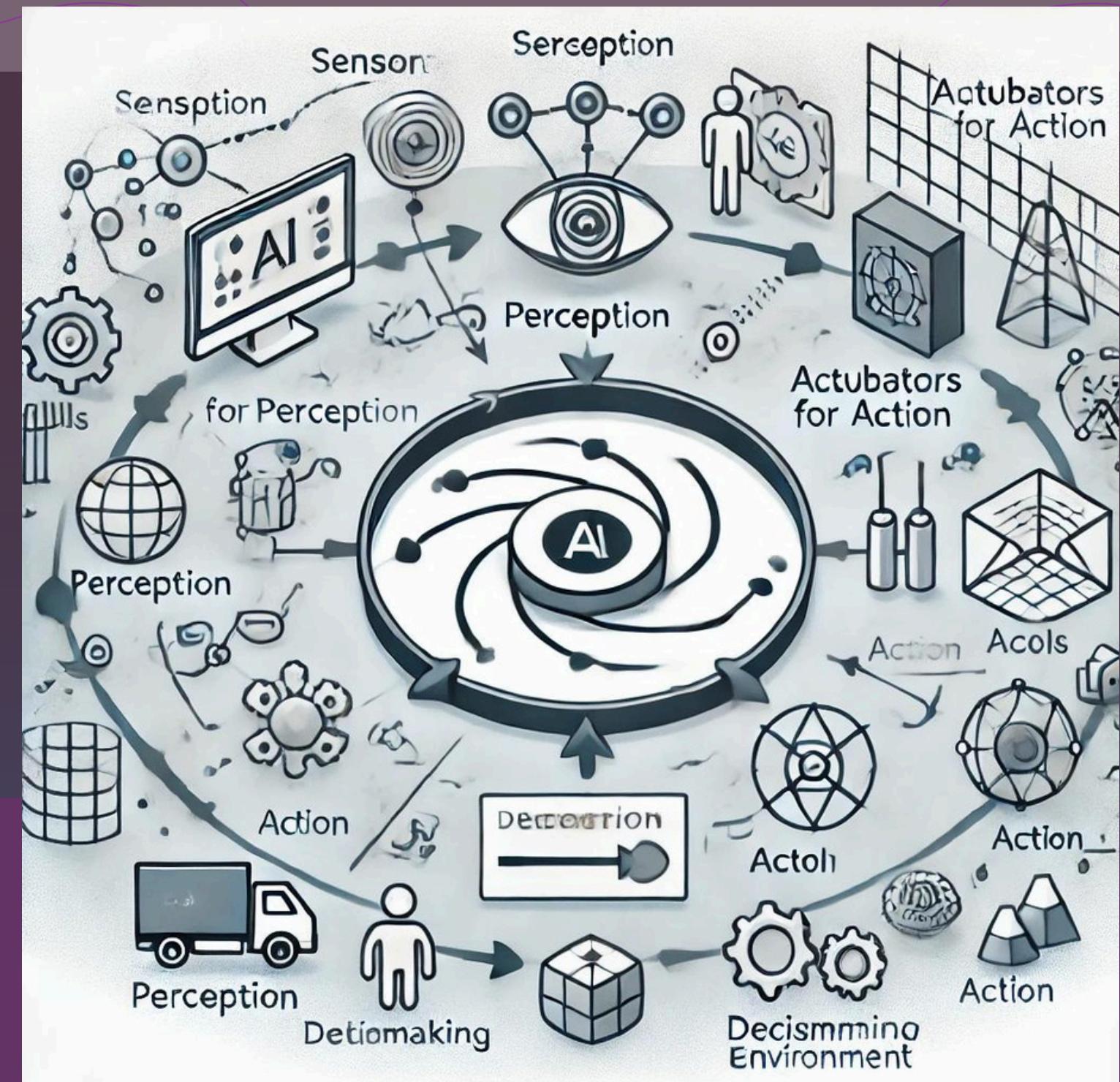


WHAT ARE AGENTS ?

- An agent is an entity that perceives its environment and acts upon it to achieve specific goals.
- In AI/ML, agents can learn from data, interact with their surroundings, and improve their performance over time.

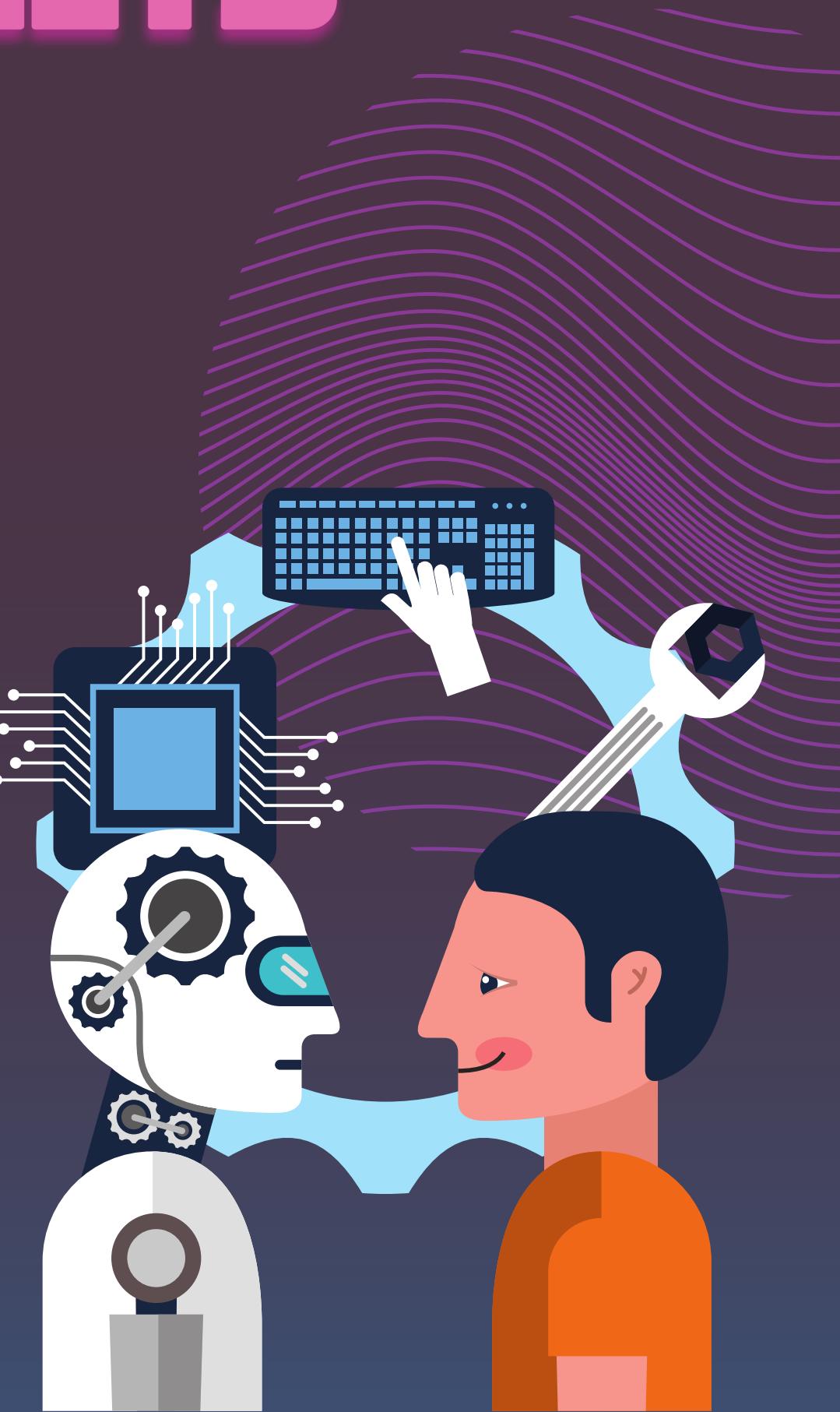


AGENTS



KEY CONCEPTS OF AGENTS

- Perception:** Agents collect data from their environment through sensors or input.
- Action:** Agents perform actions that impact the environment.
- Learning:** In ML agents, actions and perceptions improve through learning from data or experiences.



TYPES OF AGENTS

THERE ARE 5 TYPES OF AI AGENTS

1

SIMPLE-REFLEX
AGENTS

2

MODEL-BASED
AGENTS

3

GOAL-BASED
AGENTS

4

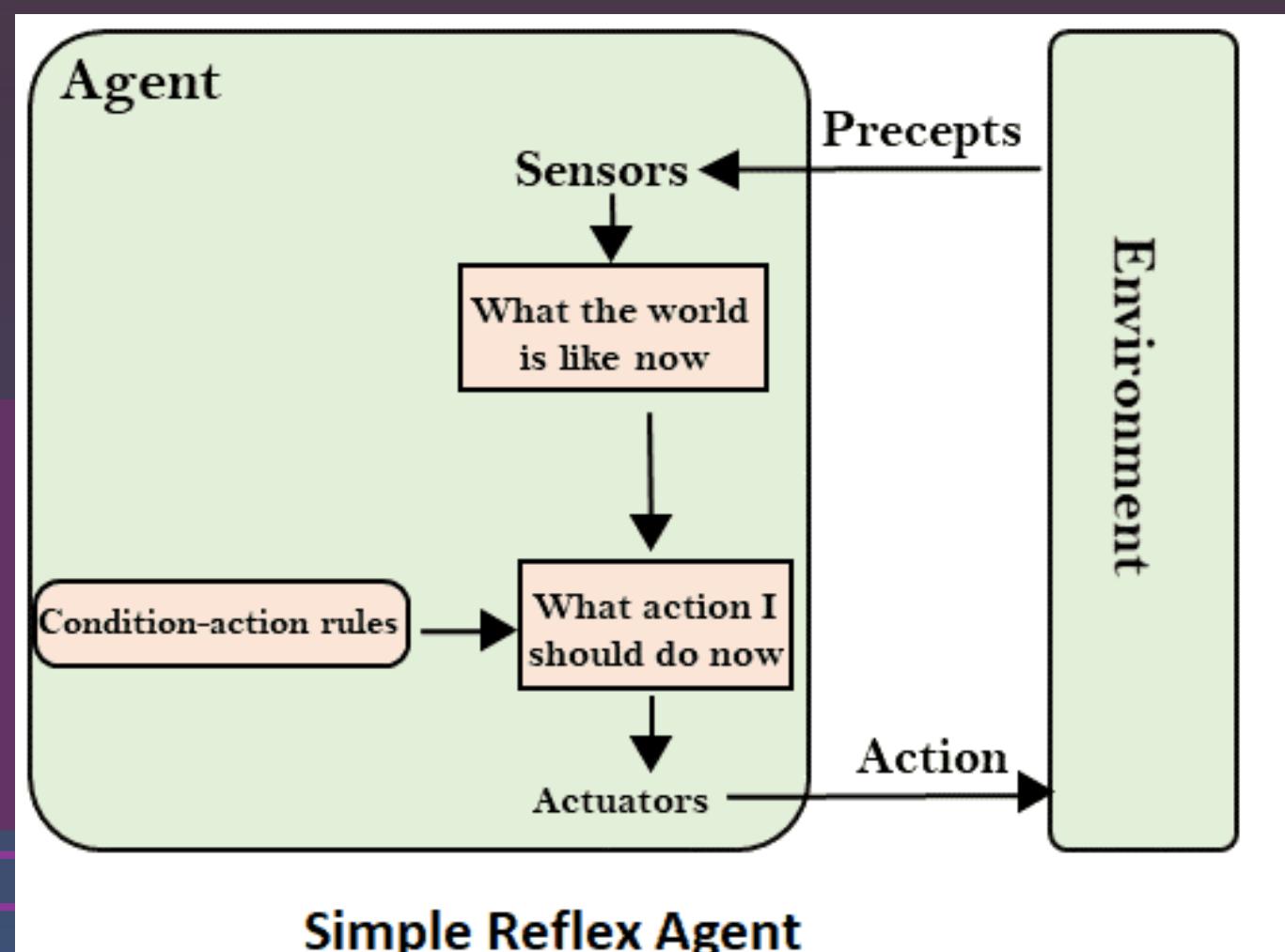
UTILITY-BASED
AGENTS

5

LEARNING
AGENTS

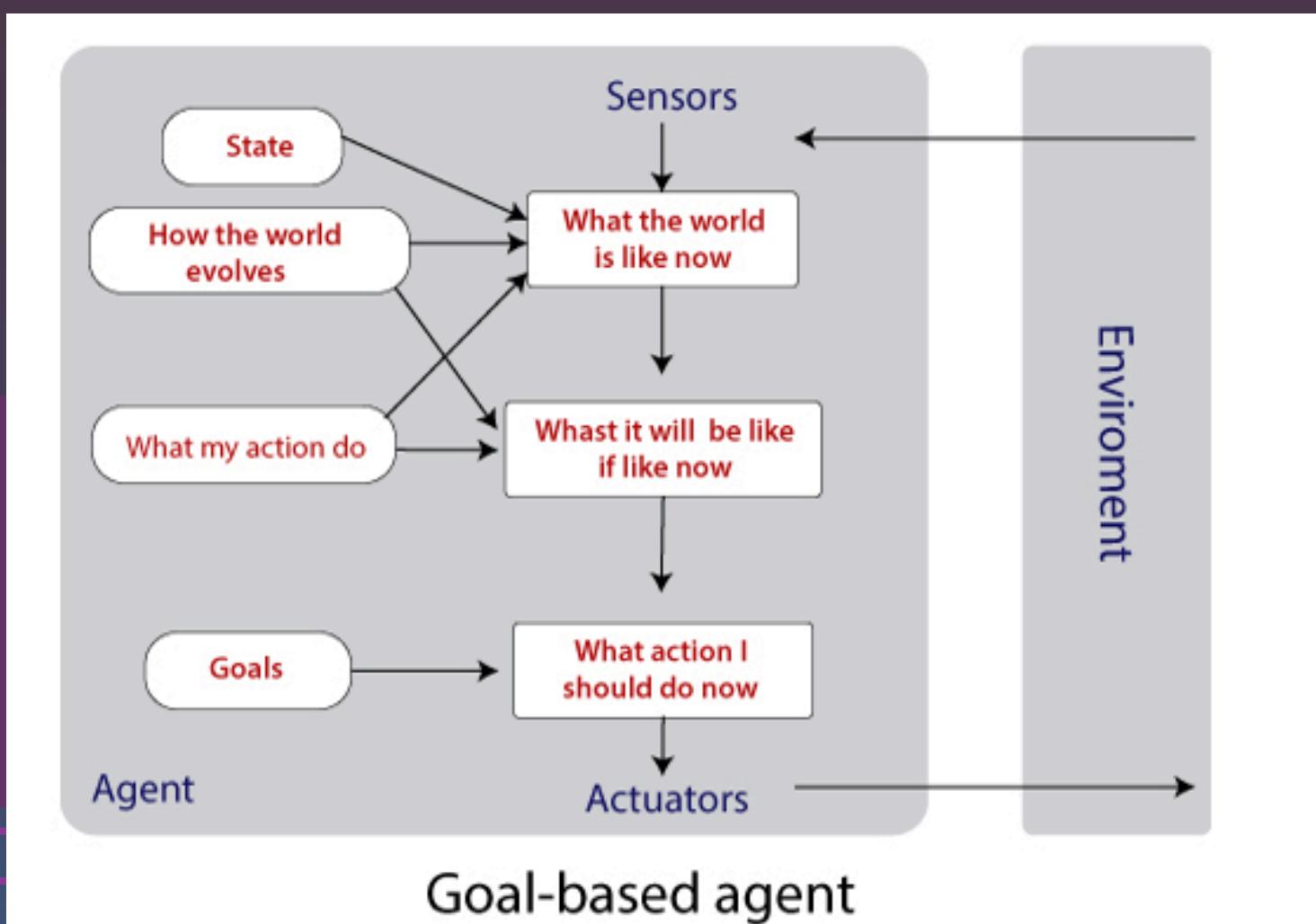
SIMPLE REFLEX AGENTS

These agents act only on the current situation, ignoring the history of the environment.
Example: A thermostat that adjusts temperature based on the current room temperature.



GOAL BASED AGENTS

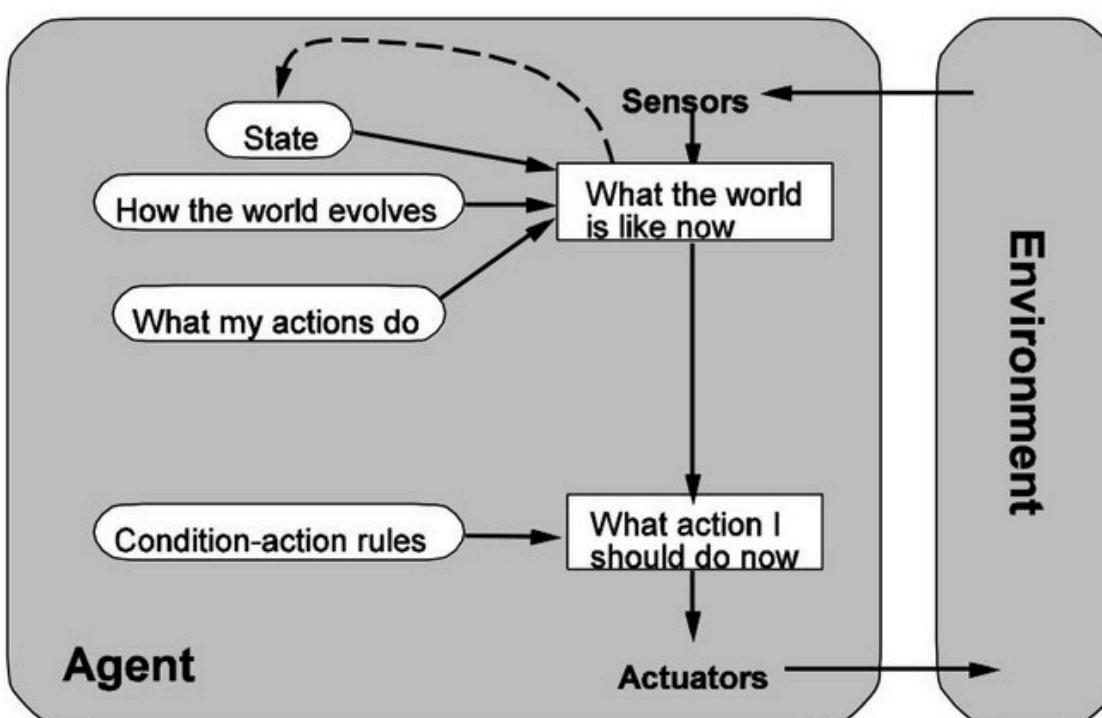
Make decisions to achieve a specified goal.
Example: Chess-playing AI that plans moves to checkmate the opponent.



MODEL BASED AGENTS

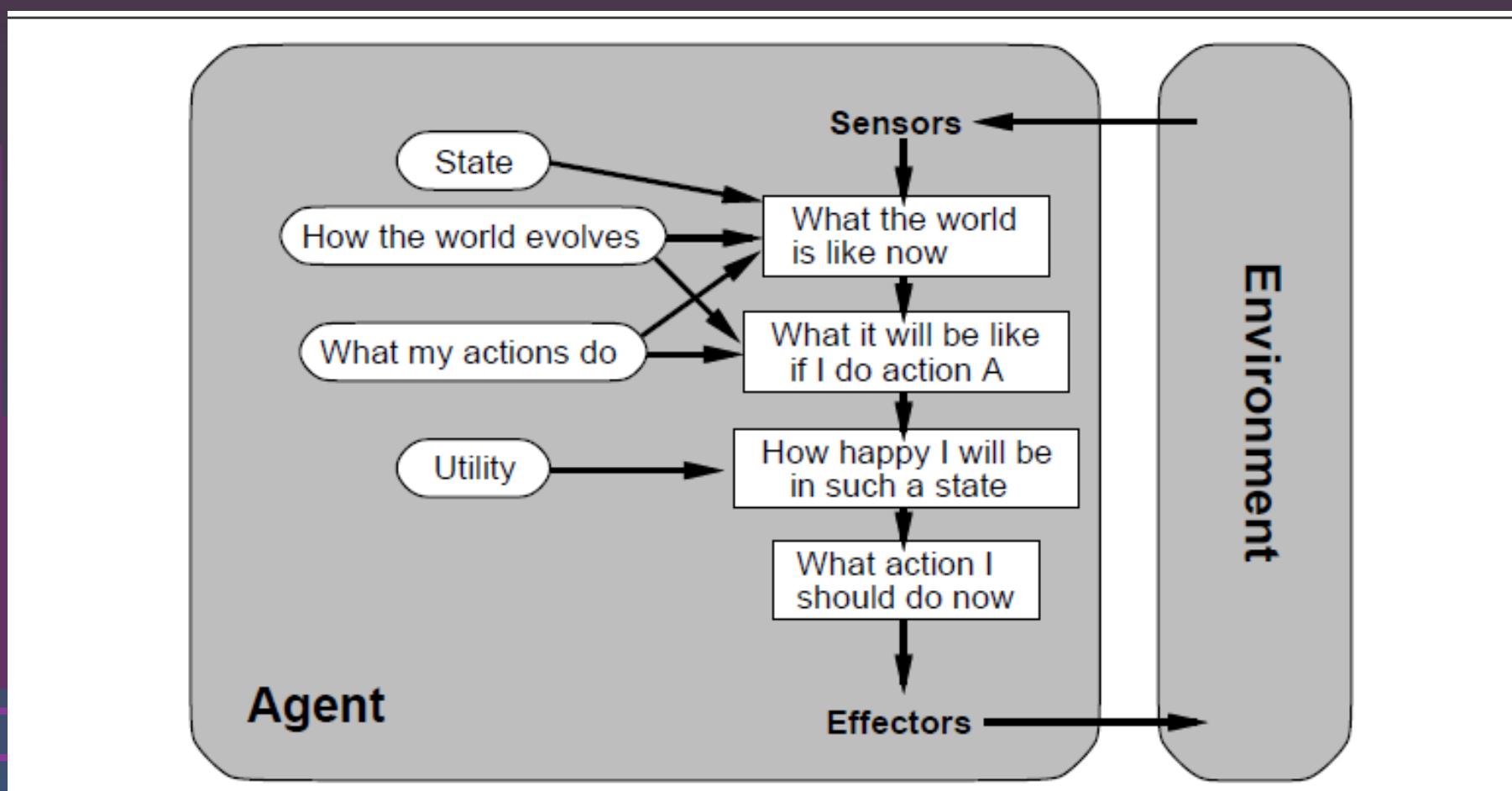
Maintain an internal model of the world to make decisions.
Example: Self-driving cars that use sensors and maps to navigate.

Model-Based Reflex Agent



UTILITY BASED AGENTS

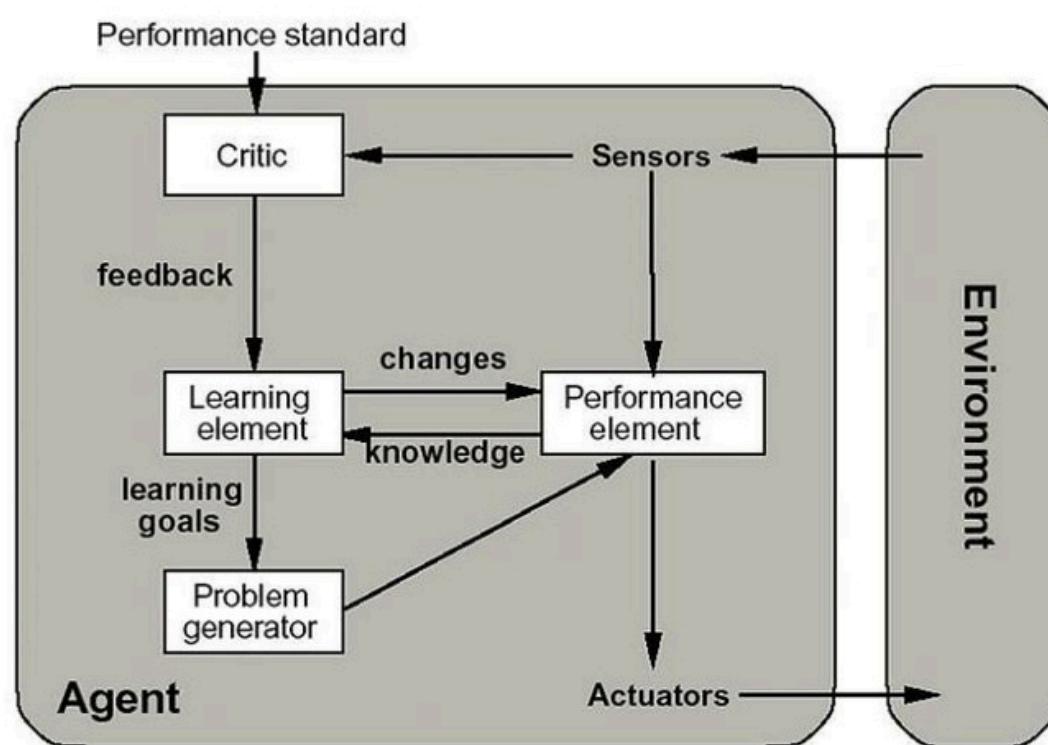
Choose actions based on a utility function to maximize "happiness" or "success".
Example: E-commerce recommendation systems that maximize user engagement.



LEARNING AGENTS

Learn from past experiences to improve performance over time.
Example: Personal assistants like Siri, Alexa.

Learning Agent (in general)



CONCLUSION

- Summary: Agents vary from simple to highly complex, each suited to different tasks and environments.
- Key takeaway: Understanding the types of agents helps in selecting the appropriate one for various applications in AI and robotics.



THANK YOU!

