



AI

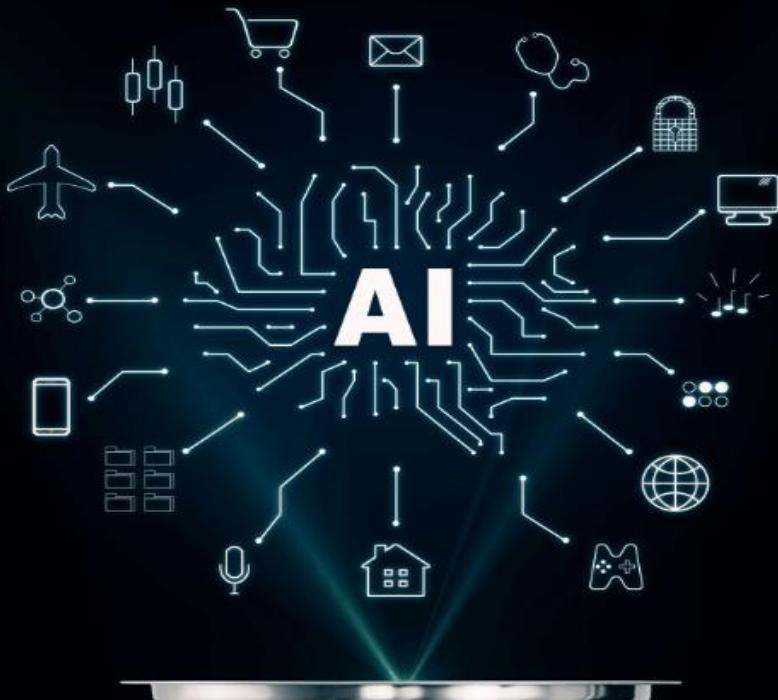
What Is AI or Artificial Intelligence?

Artificial intelligence or AI is the branch of computer science that studies machine intelligence.

EXAMPLES OF APPLICATIONS

- Search engines (Google)
- Content recommendations (Netflix, YouTube)
- Self-driving vehicles
- Automatic language translation
- Facial recognition
- Computer games
- Spam filters

An AI is a computer system that performs tasks that usually require human intelligence.



Machine Learning



Narrow Artificial Intelligence (ANI)

Stage 1

Machines imitate human behavior, specializing in one area to solve a problem.

i.e. Siri, ChatGPT, Alexa



Machine Intelligence



Artificial General Intelligence (AGI)

Stage 2

Machines can continuously learn and are as smart as humans.



Machine Consciousness



Artificial Super Intelligence (ASI)

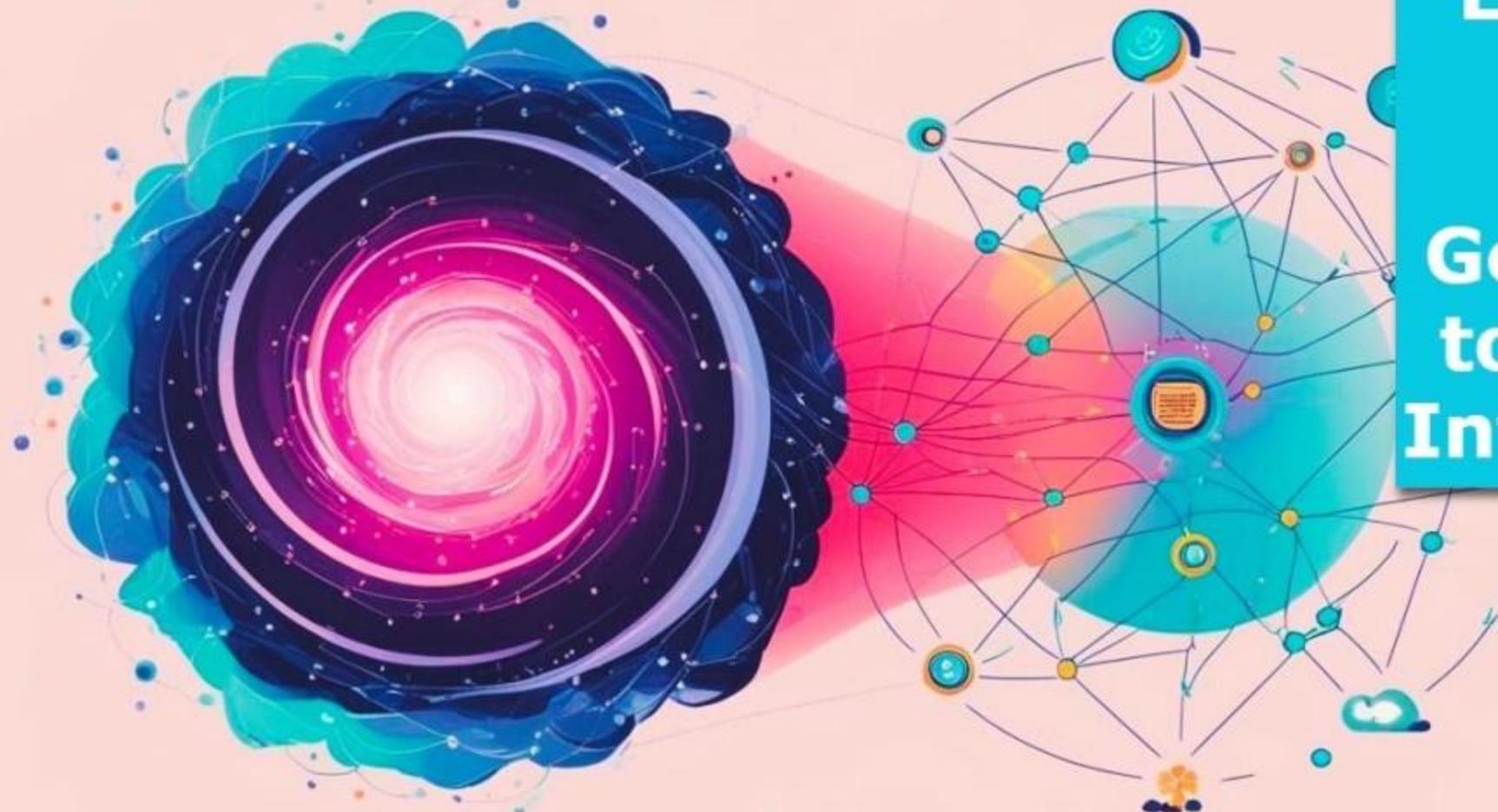
Stage 3

Machines that are smarter than humans across the board.



The Evolution of AI

AI that doesn't just assist — it achieves



Generative Intelligence

From text to tech, Generative AI turns
imagination into innovation.

Agentic Intelligence

Beyond generation — it's
execution with intelligence.

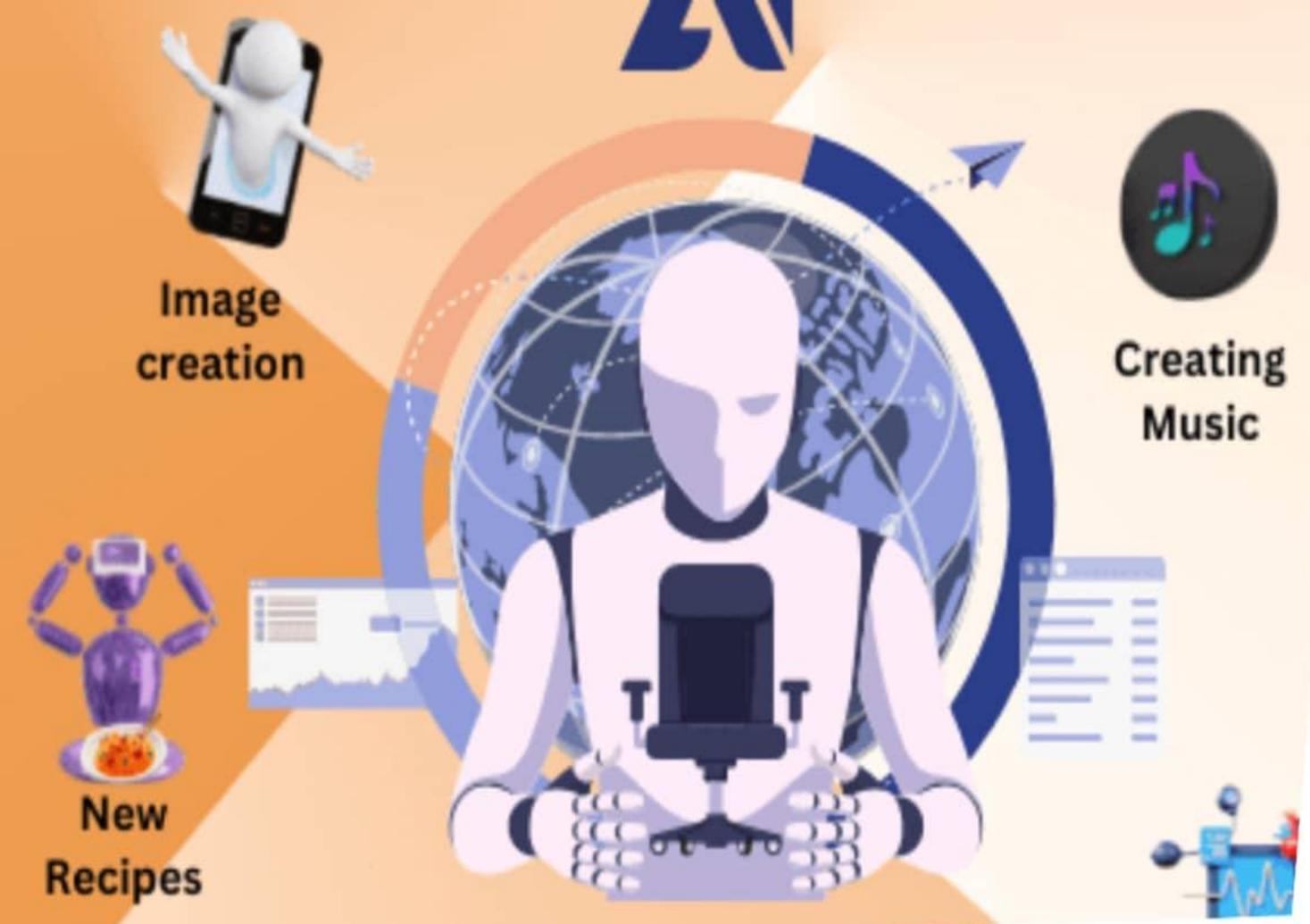
The
Evolution
of AI —
From
Generative
to Agentic
Intelligence

DataThick

Why AI Is Evolving into Agentic AI

- Traditional AI systems are primarily designed to predict outcomes and respond to inputs. Their intelligence remains reactive and limited to predefined tasks.
- Agentic AI represents the next evolution, enabling systems to make decisions, plan actions, and operate autonomously toward defined goals.
- This shift marks a transformation from passive intelligence to active, goal-driven systems capable of independent action.

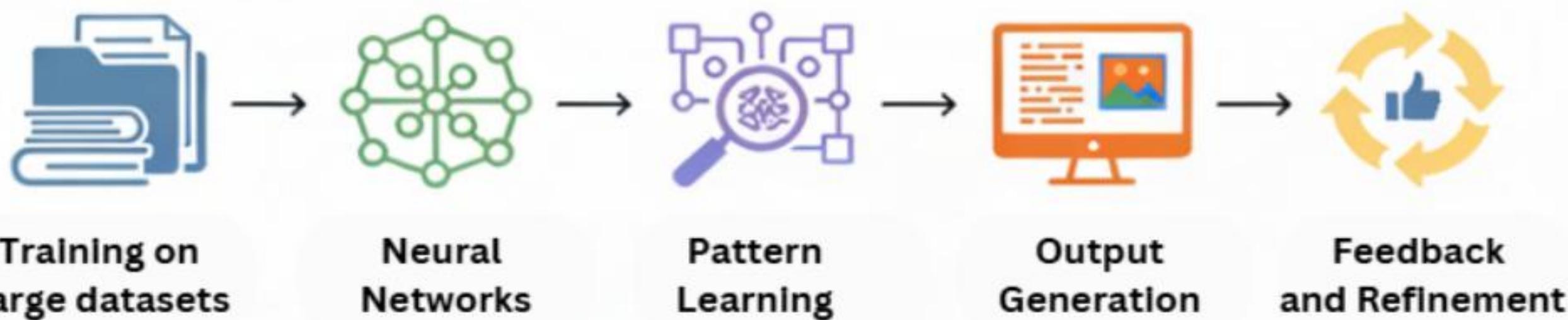
Generative AI Models



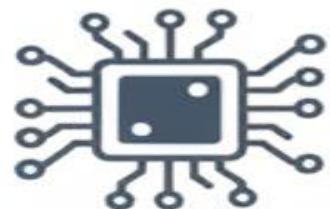
UNDERSTANDING GENERATIVE AI

EXPLAINING HOW IT WORKS

How does Generative AI work?



AI



Generative AI



 COMPLETE GUIDE

Temperature in LLMs

From Beginner to AI Whisperer

0.0

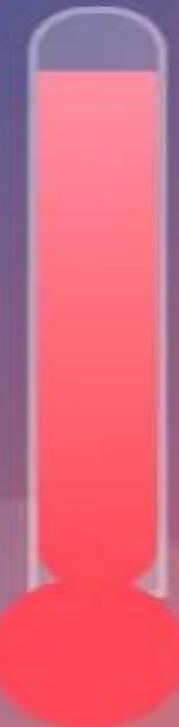
PRECISE

0.5

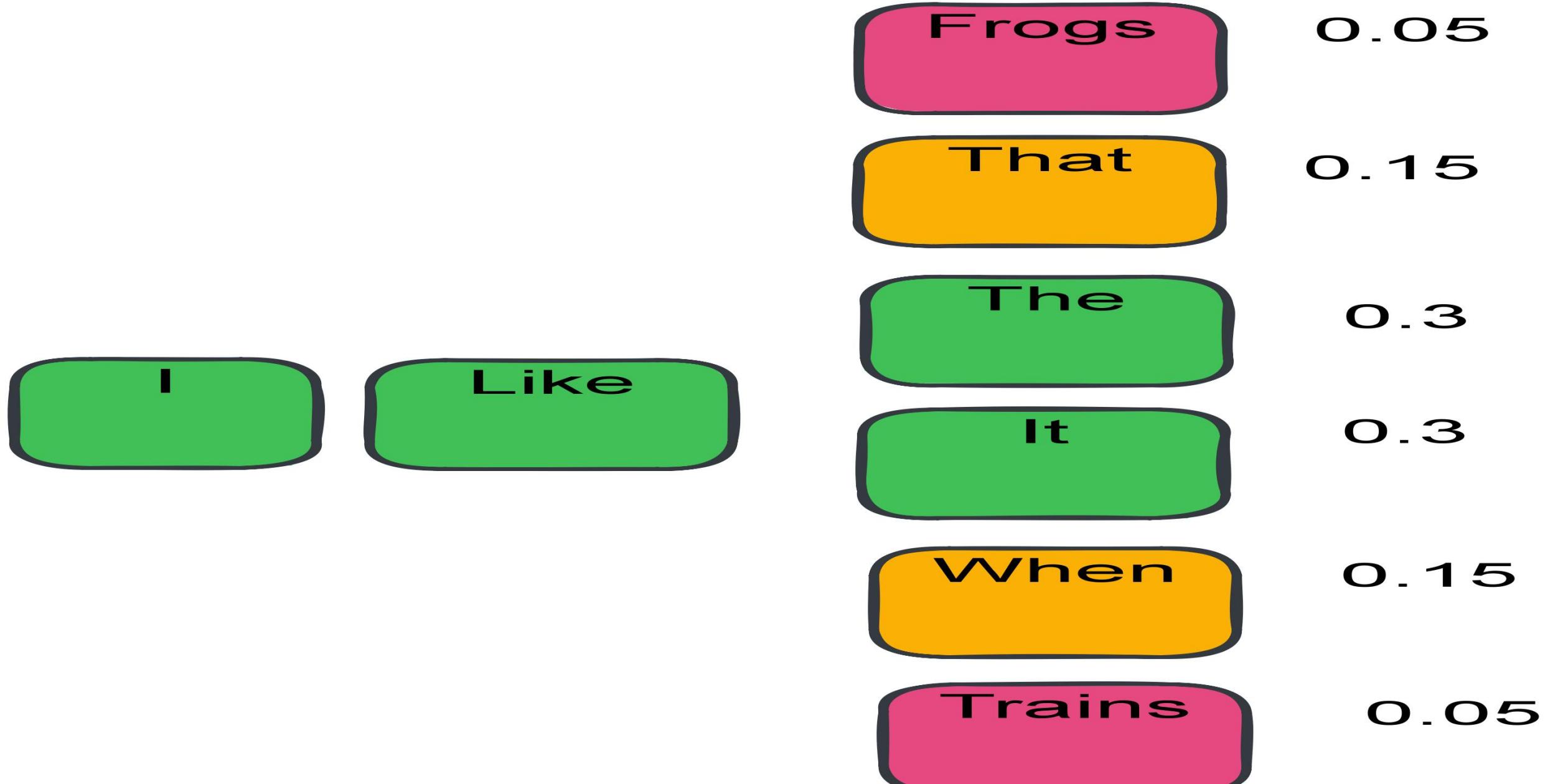
BALANCED

1.0

CREATIVE

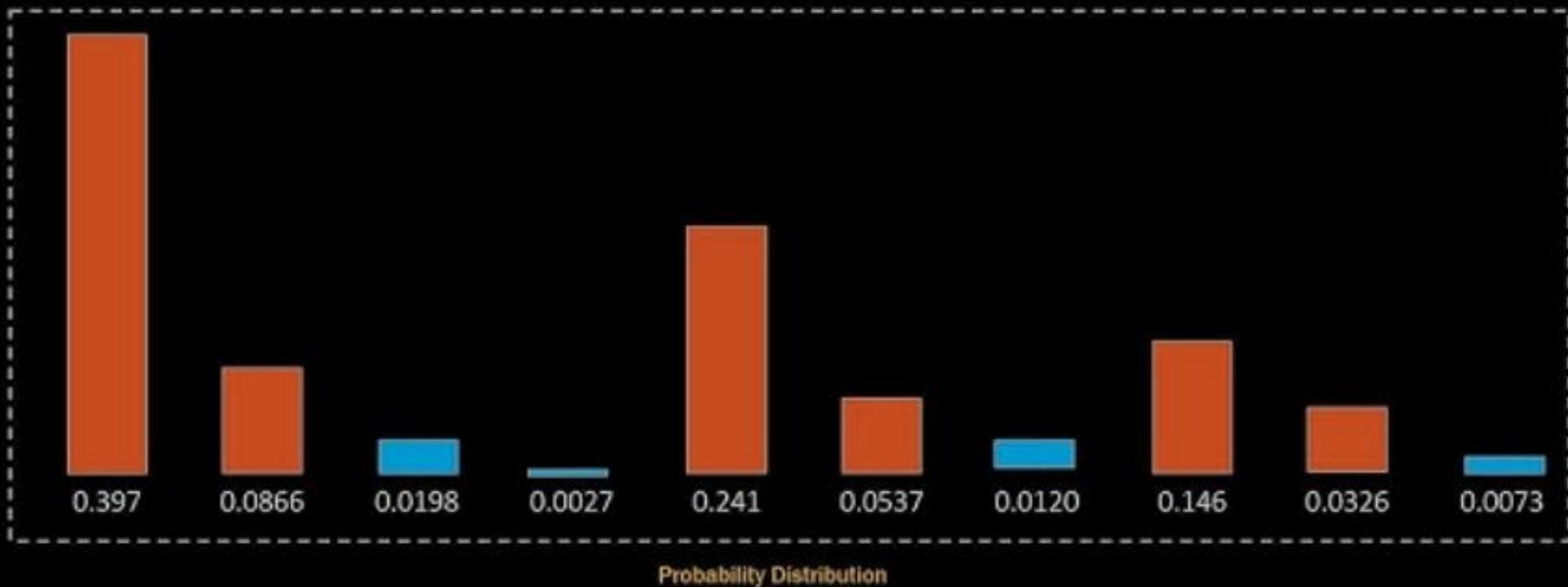


Probabilities of next token





Top P, Top K & Temperature





Agentic AI^{3D}



What Is Agentic AI?

Agentic AI refers to AI systems that can independently pursue goals by planning, deciding, acting, and adapting over time—often using tools and memory—rather than only responding to prompts.

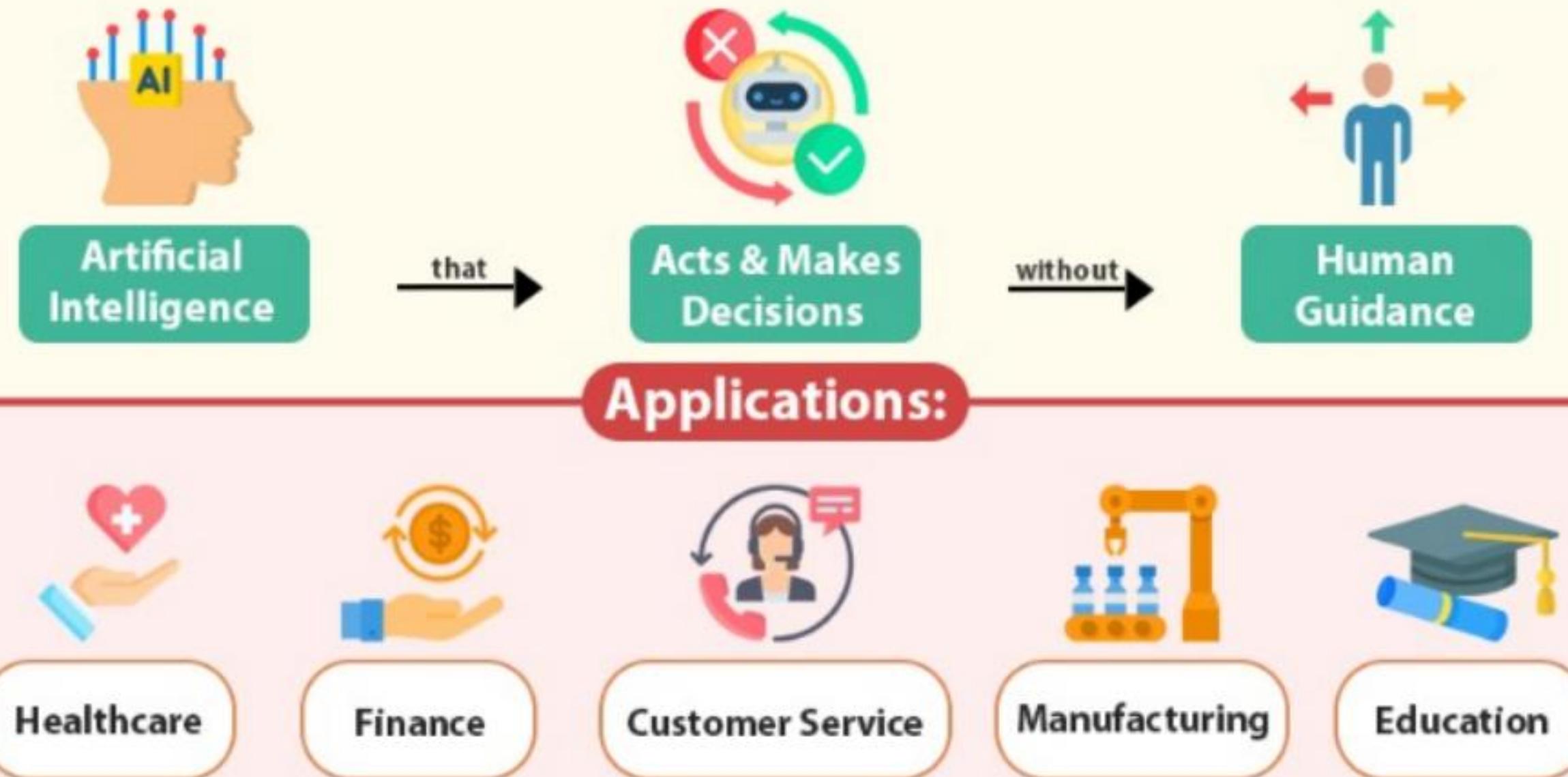
How Agentic AI Works (Core Idea)

An agentic system follows a continuous loop:

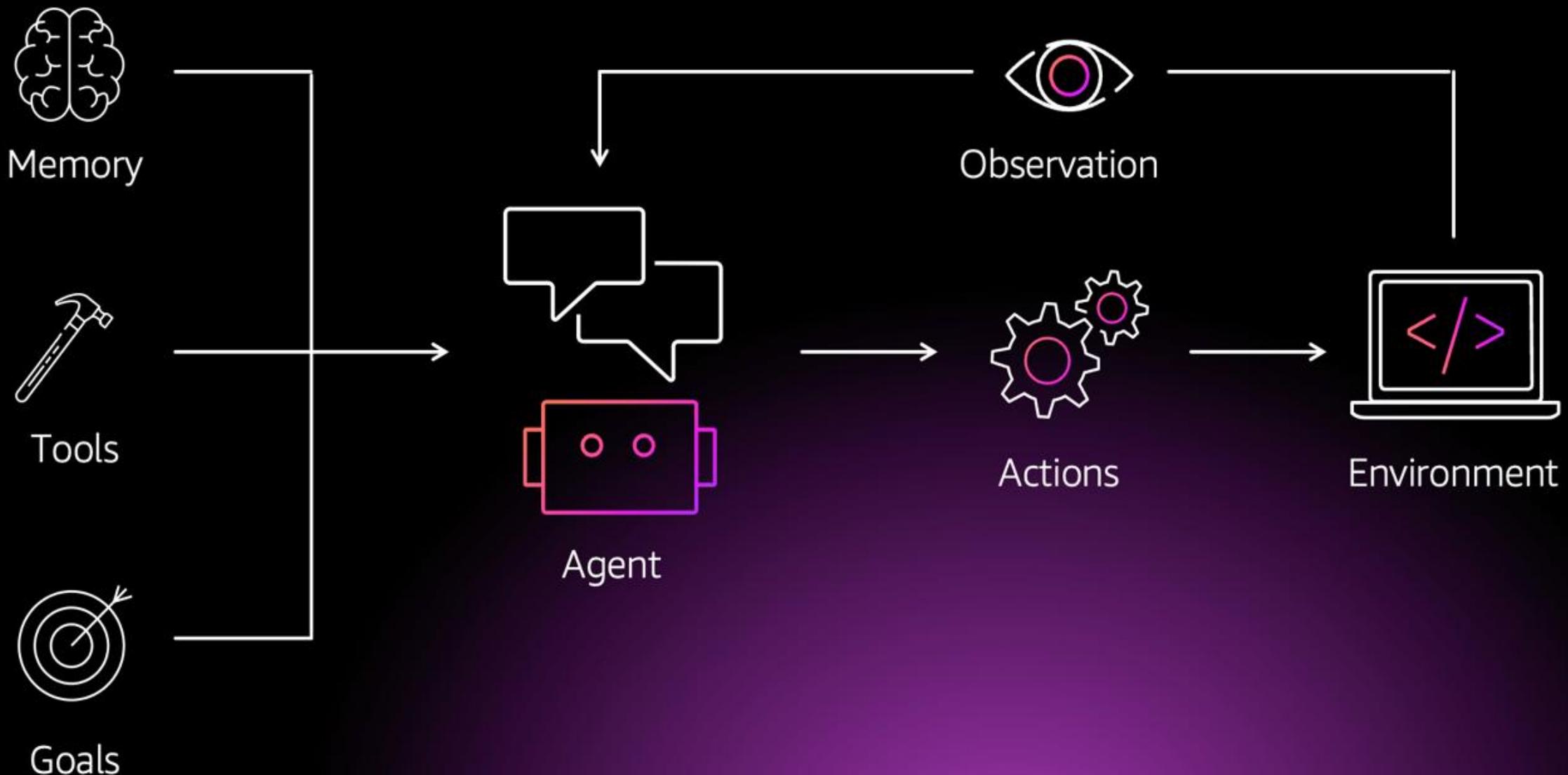
Goal → Plan → Act → Observe → Reflect → Improve

- This loop allows the system to:
- Decide what to do next
- Use tools (APIs, databases, web, code)
- Remember past actions and outcomes
- Correct itself based on feedback

What Is Agentic AI?



What is agentic AI?



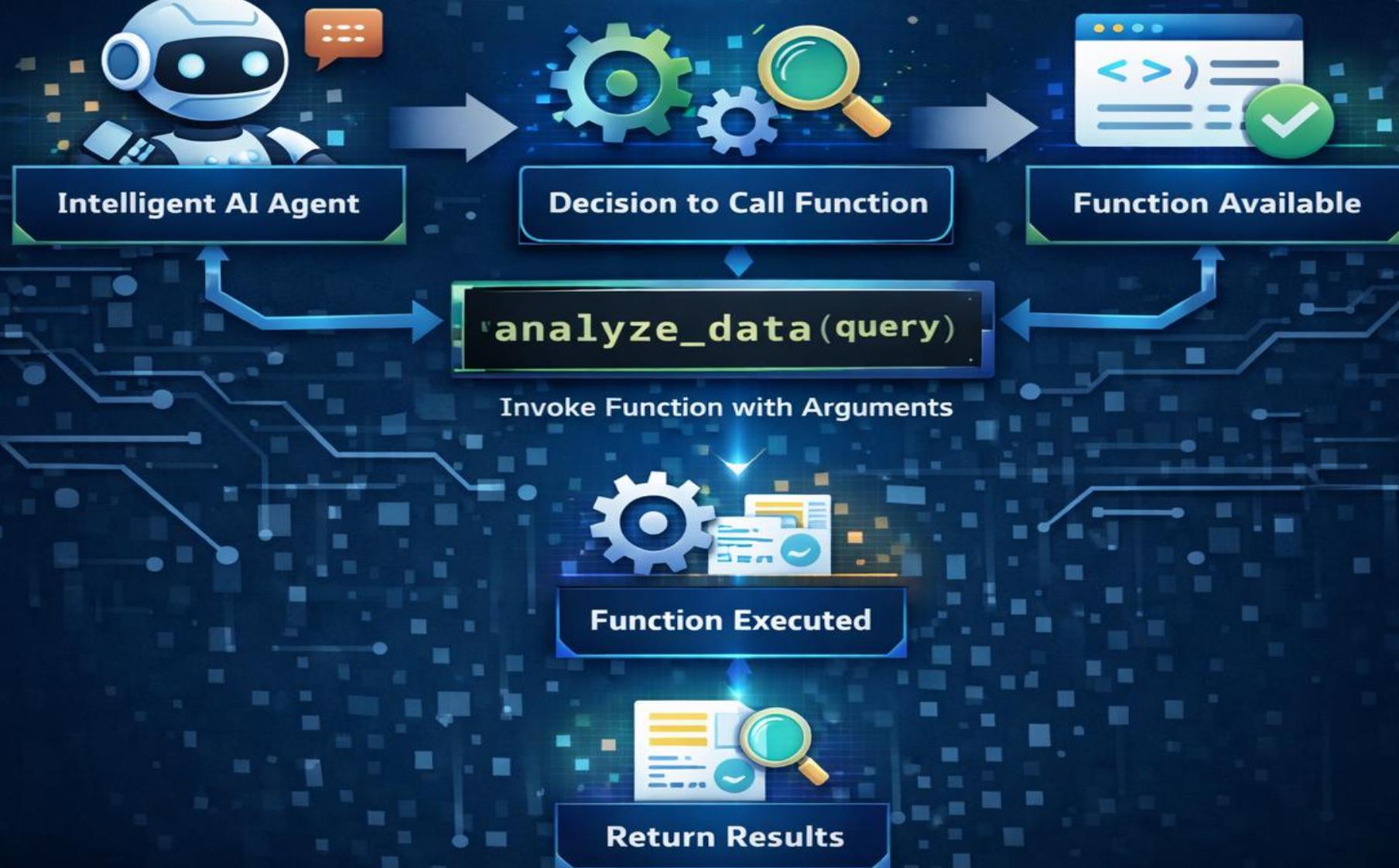
AGENTIC LOOP



How an Agent Iterates the Loop



How a Function Call Occurs



HOW AN AI AGENT WORKS



What Are CLI Agents?

CLI agents (Command-Line Interface agents) are AI-powered assistants that operate directly inside the terminal. They allow developers to interact with AI using commands, scripts, and system context—without leaving the development environment.

A CLI agent is an AI system that:

- Runs in the terminal (bash, zsh, PowerShell, etc.)
- Understands natural language instructions
- Can read, write, and modify code
- Executes commands, scripts, and workflows
- Interacts with files, repositories, APIs, and tools
- Operates in agent loops (think → act → observe → repeat)

Examples:

- Gemini CLI
- Cursor CLI
- Claude Code
- Open-source tools like Aider, Continue, OpenDevin (CLI modes)

How an AI CLI Agent Works

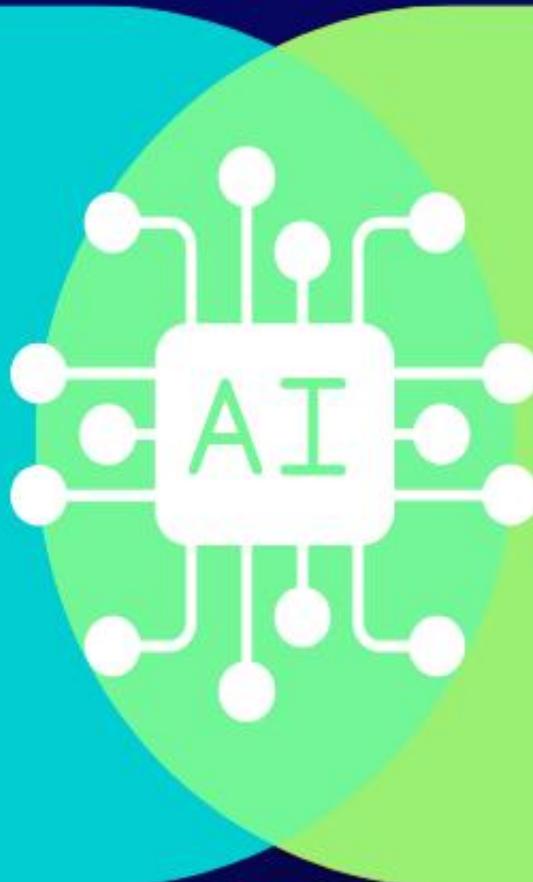


Traditional AI vs. Agentic AI

Traditional AI

Requires prompts from humans and/or explicitly programmed rules.

- Pattern recognition
- Prediction
- Classification within structured datasets



Agentic AI

Takes action to achieve a defined outcome, often without direct human input.

- Perceiving environment
- Reasoning
- Executing actions
- Learning from outcomes

What Is an Agent Factory?

An Agent Factory is a systematic framework for designing, generating, deploying, and managing AI agents at scale—in much the same way a software factory produces applications using standardized processes, reusable components, and governance.

An Agent Factory is an architecture that enables organizations or individuals to:

- Rapidly create AI agents for different tasks
- Reuse shared intelligence components (LLMs, tools, memory, policies)
- Continuously improve, monitor, and govern agent behavior
- Deploy agents across multiple domains and platforms

Think of it as a production line for intelligent agents.

Just as factories mass-produce machines, Agent Factories mass-produce intelligent digital workers.

How an Agent Factory Works



Agentic AI: Automating & Orchestrating the World



- Autonomous agents that observe, plan, act, and iterate using tools, APIs, and code.
- Transform society by automating repetitive tasks, boosting productivity, personalizing learning, and optimizing business operations.
- Human-designed workflows allow agents to manage complex systems while ensuring safety, ethics, and transparency.
- Outcome: Agents handle complexity, freeing humans to focus on strategy, creativity, and innovation.

Agentic AI: Automating & Orchestrating the World

Autonomous agents that observe, plan, act, and iterate using tools, APIs, and code.



Outcome: Agents handle complexity, freeing humans to focus on strategy, creativity, and innovation.



Efficiency Boosted



Learning Personalized



Society Transformed

Human-designed workflows ensure



Safety



Ethics



Transparency

TOOLS USED FOR AGENT DESIGNING:

- n8n – Open-source workflow automation for integrating APIs and AI agents.
- Zapier – Connect apps and automate tasks with minimal coding.
- Make (Integromat) – Visual workflow automation platform.
- Tray.io – Enterprise-grade automation for workflows and agents.
- Retool – Build internal tools and dashboards with agent integrations.
- Agent Builder – Visual workflow builder for agent logic.
- OpenAI Platform
- AgentKit – Full toolkit including drag- and- drop builder and connectors.
- OpenAI
- OpenAI Agents SDK – Code- centric toolkit for custom agent creation.
- OpenAI Platform
- ChatGPT agent features – Built- in autonomous capabilities within ChatGPT.