

Gemini AI LLM

Input:

what is difference between Gen ai and agentic ai

Answer to your question

The Response is

The terms **

GenAI (Generative AI)** and **Agentic AI** describe different, though often complementary, aspects of modern AI systems.

Here is a breakdown of the differences, followed by how they relate to each other:

1. GenAI (Generative AI)

GenAI refers to a

type of AI model defined by its **function**: the ability to **create novel content** (generate).

Feature	Description	Examples of Models
**Primary		

Goal** | **Creation.** To produce new outputs (text, images, audio, code) based on patterns learned from large datasets. | Large Language Models (LLMs like GPT-4, Claude), Stable Diffusion, DALL-E, Mid

journey. | | **Mode of Operation** | **Reactive Generation.** It takes an input (a prompt) and provides an output (a generated response). It is a single-step input-output process. | "Write me a poem about the

ocean." → *Poem generated.* | | **Defining Characteristic** | **Content Production.** The focus is on the quality and creativity of the generated output. | The model is a sophisticated engine for producing artifacts. | |

**Typical Use Cases

** | Writing, drafting emails, summarizing text, generating art, coding assistance, translation. |

2. Agentic AI (AI Agents)

Agentic AI refers to an AI system defined by its **structure**

and **behavior**: the ability to **act autonomously** to achieve a defined goal.

Feature	Description	Examples of Systems
Primary Goal	Action and Execution	

To break down complex tasks, plan steps, use tools, and interact with environments (digital or physical) to achieve an objective. | AutoGPT, specialized bots that manage calendars or book travel, AI assistants that interact with complex APIs. |

Mode of Operation | Proactive Planning and Iteration. It operates in a loop: Perceive, Reason, Plan, Act, and then Repeat (P-R-A loop) until the goal is met. |

Book me a flight to San Francisco for next Tuesday." → *The agent searches, compares prices, checks dates, interacts with booking sites, and confirms.* | **Defining Characteristic | Autonomy and Tool Use.** The focus

is on executing a multi-step workflow and exhibiting intelligent behavior over time. | The system is a goal-oriented problem-solver. | **Typical Use Cases** | Automated customer service workflows, complex data analysis requiring external tools, software

development automation, autonomous robotics. |

The Critical Intersection: How GenAI Enables Agentic AI

GenAI and Agentic AI are not mutually exclusive. In fact, modern AI agents **rely heavily** on Generative AI,

especially LLMs (Large Language Models), to power their intelligence.

Think of it this way:

- **The Agentic AI is the body and the brain's control center.** It handles the planning, the memory, the tool execution

, and the decision-making loop.
- **The GenAI (LLM) is the brain's reasoning and communication core.** It provides the necessary intelligence for the agent to understand the goal, determine the next step, evaluate the results

, and communicate its findings.

Analogy: The Contractor Building a House

AI Component	Role in Building the House
Agentic AI (The Contractor)	Manages the entire project

, defines the sequence of tasks (lay the foundation, build the walls, install plumbing), hires and directs specialized workers (tools), and ensures the overall goal is met. || **GenAI (The Contractor’s Expertise/LLM)**

| The deep knowledge base that allows the contractor to understand the blueprints, calculate risks, communicate instructions clearly to the workers, and reason about unforeseen problems (e.g., "If the roof leaks, I must call the roofer"). |

Summary of Differences

Feature	GenAI (Generative AI)	Agentic AI (AI Agent)
What is it?	A model defined by its *	

output type* (creation). | A system defined by its *behavior* (action). || **Core Function** | Generate content (text, images, code). | Achieve goals via planning and execution. || **Complexity

** | Usually a single-step transformation (Prompt → Output). | Multi-step iterative process (Perceive → Plan → Act → Repeat). || **Key Capability** | Creativity and fluency. | Autonomy and tool orchestration

. || **Relationship** | The core intelligence that powers the agent. | The architecture that uses GenAI to perform actions. |

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text: "The terms **GenAI (Generative AI)** and **Agentic AI** describe different, though often complementary, aspects of modern AI systems.\n\nHere is a breakdown of the differences, followed by how they relate to each other:\n\n---\n\n## 1. GenAI (Generative AI)\n\n**GenAI** refers to a **type** of AI model defined by its **function**: the ability to **create novel content** (generate).\n\n| Feature | Description | Examples of Models |\n| :--- | :--- |\n| **Primary Goal** | **Creation.** To produce new outputs (text, images, audio, code) based on patterns learned from large datasets. | Large Language Models (LLMs like GPT-4, Claude), Stable Diffusion, DALL-E, Midjourney. |\n| **Mode of Operation** | **Reactive Generation.** It takes an input (a prompt) and provides an output (a generated response). It is a single-step input-output process. | "Write me a poem about the ocean." → "Poem generated." |\n| **Defining Characteristic** | **Content Production.** The focus is on the quality and creativity of the generated output. | The model is a sophisticated engine for producing artifacts. |\n| **Typical Use Cases** | Writing, drafting emails, summarizing text, generating art, coding assistance, translation. |\n\n---\n\n## 2. Agentic AI (AI Agents)\n\n**Agentic AI** refers to an AI system defined by its **structure and behavior**: the ability to **act autonomously** to achieve a defined goal.\n\n| Feature | Description | Examples of Systems |\n| :--- | :--- |\n| **Primary Goal** | **Action and Execution.** To break down complex tasks, plan steps, use tools, and interact with environments (digital or physical) to achieve an objective. | AutoGPT, specialized bots that manage calendars or book travel, AI assistants that interact with complex APIs. |\n| **Mode of Operation** | **Proactive Planning and Iteration.** It operates in a loop: Perceive, Reason, Plan, Act, and then Repeat (P-R-A loop) until the goal is met. | "Book me a flight to San Francisco for next Tuesday." → "The agent searches, compares prices, checks dates, interacts with booking sites, and confirms." |\n| **Defining Characteristic** | **Autonomy and Tool Use.** The focus is on executing a multi-step workflow and exhibiting intelligent behavior over time. | The system is a goal-oriented problem-solver. |\n| **Typical Use Cases** | Automated customer service workflows, complex data analysis requiring external tools, software development automation, autonomous robotics. |\n\n---\n\n## The Critical Intersection: How GenAI Enables Agentic AI\n\nGenAI and Agentic AI are not mutually exclusive. In fact, modern AI agents **rely heavily on Generative AI, especially LLMs (Large Language Models), to power their intelligence.**\n\nThink of it this way:\n\n* **The Agentic AI is the body and the brain's control center.** It handles the planning, the memory, the tool execution, and the decision-making loop.\n* **The GenAI (LLM) is the brain's reasoning and communication core.** It provides the necessary intelligence for the agent to understand the goal, determine the next step, evaluate the results, and communicate its findings.\n\n### Analogy: The Contractor Building a House\n\n| AI Component | Role in Building the House |\n| :--- | :--- |\n| **Agentic AI (The Contractor)** | Manages the entire project, defines the sequence of tasks (lay the foundation, build the walls, install plumbing), hires and directs

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