Agentic Al

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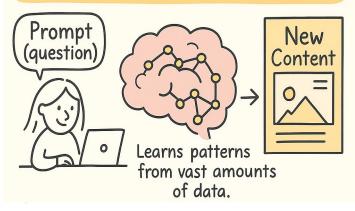
About Me

A Passionate Technocrat

- Al Research
- Automation
- Author
- Educator
- Mentor
- Adventurer

What is Generative AI?

Learns patterns from vast amounts of data.



What is an Al Agent?

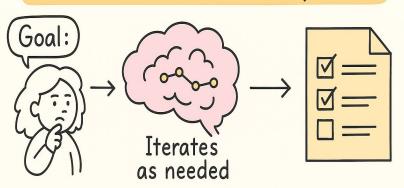
Acts in the real or digital world

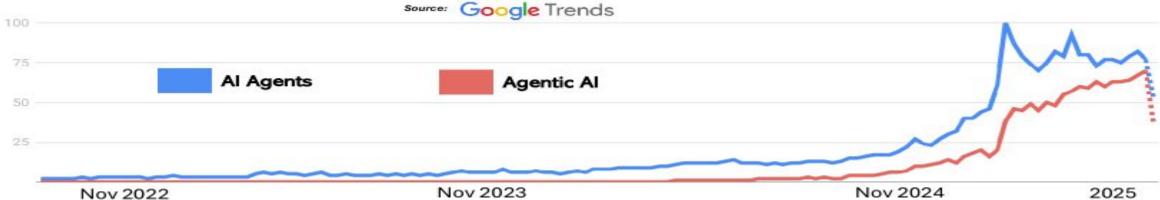


Performs actions to achieve your goals

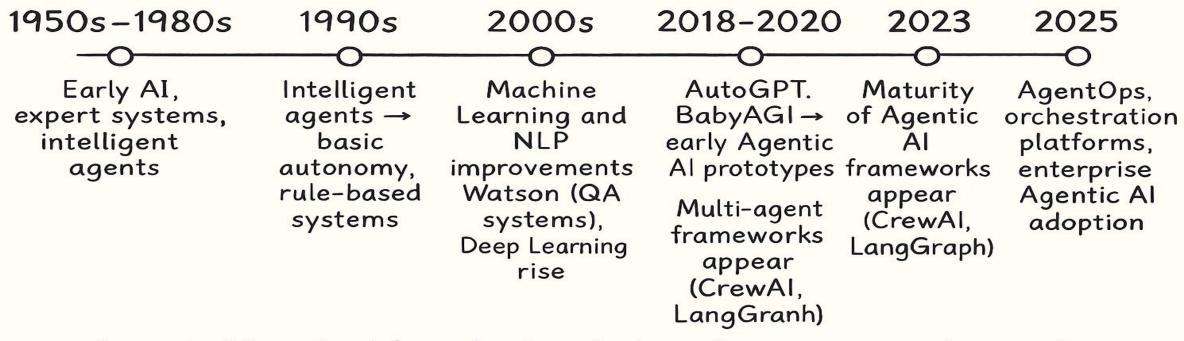
What is Agentic AI?

Goals into actionable plans





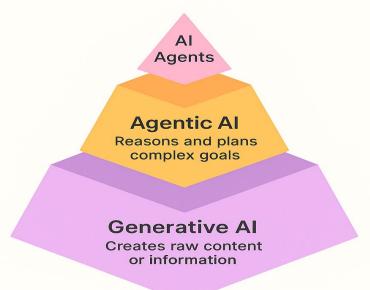
History of Agentic AI



Agentic AI evolved from basic rule-based agents to modern multiagent autonomous systems built on advanced language models and planning frameworks. In essence, Agentic AI provides the brain and the plan, while AI Agents provide the hands and feet to interact with the world and carry out that plan.

A sophisticated system often combines all three: Generative AI might produce text or code, Agentic AI orchestrates a complex workflow using that output, and various AI Agents perform the necessary steps by interacting with tools and environments.

How They Fit Together

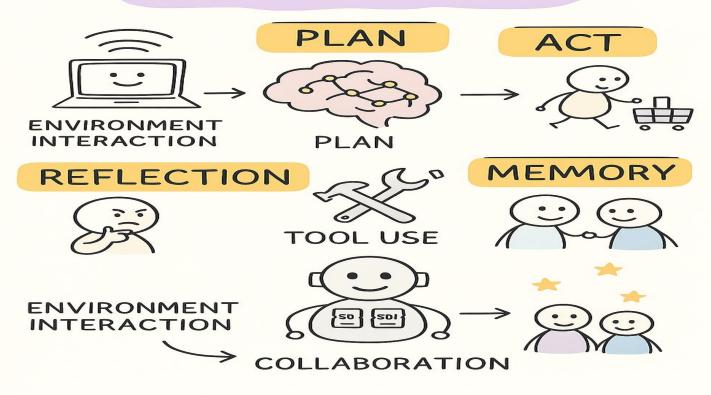


Relationship

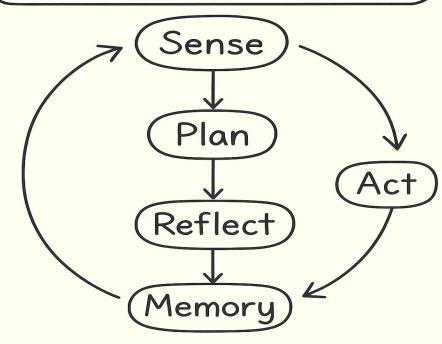
Agentic Al

	/	Definitions Capabilities Compared		
Generative AI to Agentic AI		Why Agentic Al?		
		Evolution of GenAl to Agentic Al		
				Decomposition
			/	Reflection
		Reasoning	-	Planning and Search
	/			Learning to Reason
	/			Memory Types and Structures
	1/	Memory		Retrieval Augmentation
	//			Tool Creation
	1	Tools	\leftarrow	Tool Selection
Agentic Al				Tool Use
	11			Reinforcement Learning
	11			Interacting in (Virtual) Worlds
	1	Interacting	-	Interacting with Humans
	1			Interacting with Other Agents
	1			Specifying an Agent
		Specifying and Evaluating	\leftarrow	Specifying Multi-Agents
Challenges Toward AGI		Challenges		Evaluating Agentic AI
		Agentic Al to AGI?		
Methodology and Related Work		Methodology and Scope		
Methodology and Related Work		Related Surveys		

Core Components of Agentic AI



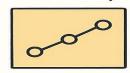
Agentic Al operates in an iterative loop of sensing, planning, acting, reflecting, and learning-enabling autonomous goal pursuit.



Prompting Techniques in Agentic AI

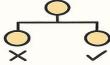
Chain of Thought (CoT)

Force step-by-step reasoning "Let's think step by step..."



Tree of Thought (ToT)

Hierarchical reasoning and pruning Generate plan, prune bad ones



Graph of Thought (GoT)

Parallel subgoal reasoning
Plan multiple sub-goals in parallel

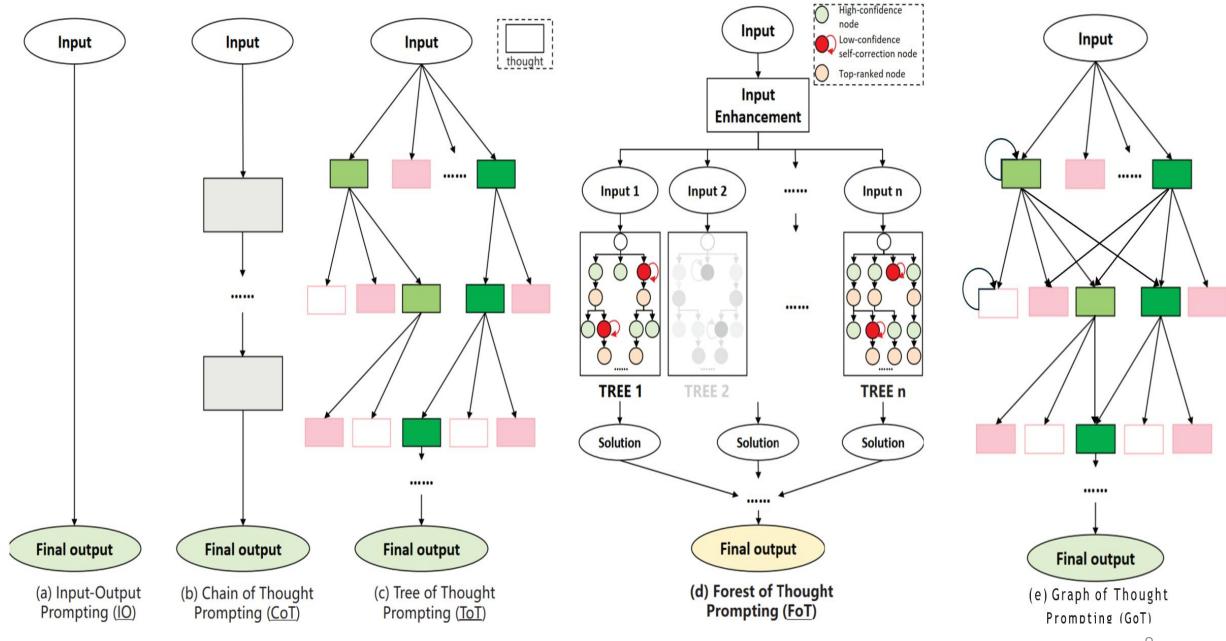


Program of Thought (PoT)

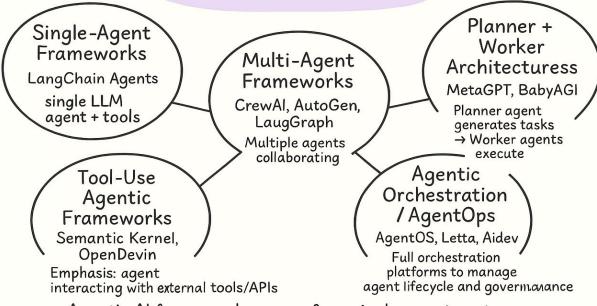
Agent writes code to reason Generate Python functions

> def print

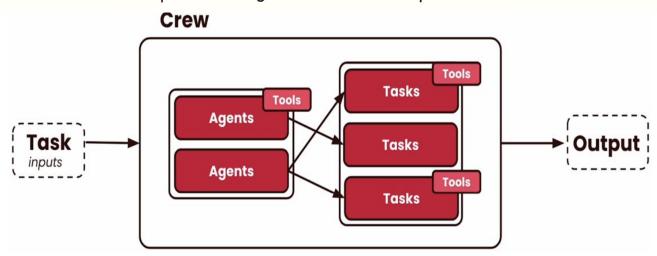
Agentic Al leverages advanced prompting to enhance reasoning, planning, and reflection—far beyond simple one-shot prompts.



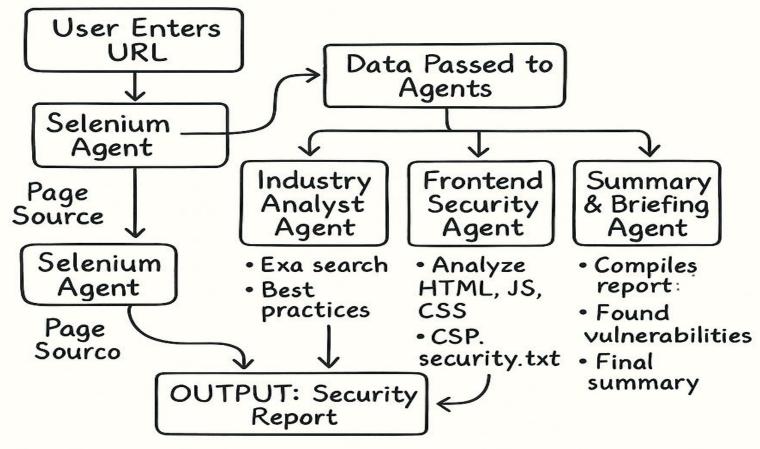
Types of Agentic Al Frameworks



Agentic Al frameworks range from single-agent systems to complex multi-agent orchestration platforms.



AGENTIC AI IN ACTION -SECURITY ANALYSIS DEMO



Our Agentic Al Crew uses a Sense → Plan → Act → Reflect loop to autonomously analyze website security and penerate a professional security report



Thank you



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