Where does generative AI fit?

Artificial intelligence (AI)

Any technique that allows computers to mimic human intelligence using logic, if-then statements, and machine learning

Machine learning (ML)

A subset of AI that uses machines to search for patterns in data to build logic models automatically

Deep learning (DL)

A subset of ML composed of deeply multi-layered neural networks that perform tasks like speech and image recognition

Generative AI

Powered by large models that are pretrained on vast corpora of data and commonly referred to as foundation models (FMs)

What is AI?

ANI vs. AGI vs. ASI

Artificial narrow intelligence (ANI)

Designed to perform specific tasks

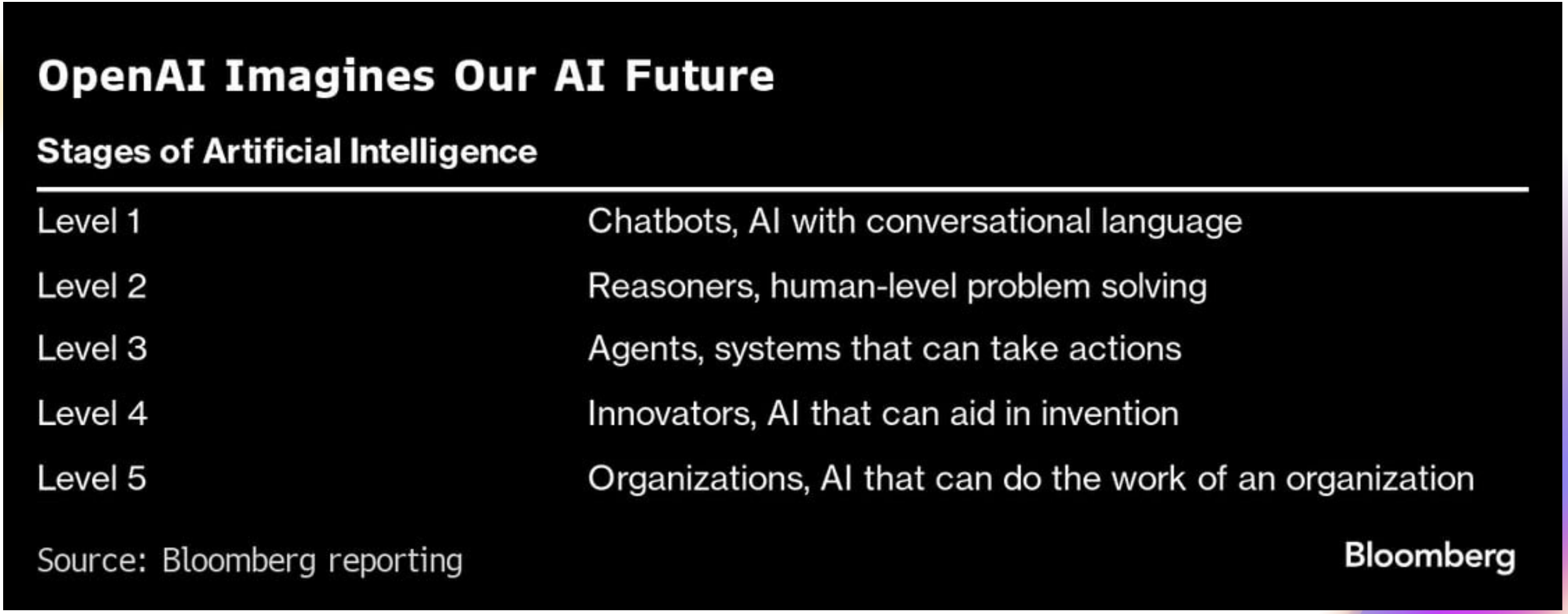
Artificial general intelligence (AGI)

Can behave in a human-like way across all tasks

Artificial super intelligence (ASI)

Smarter than humans—the stuff of sci-fi

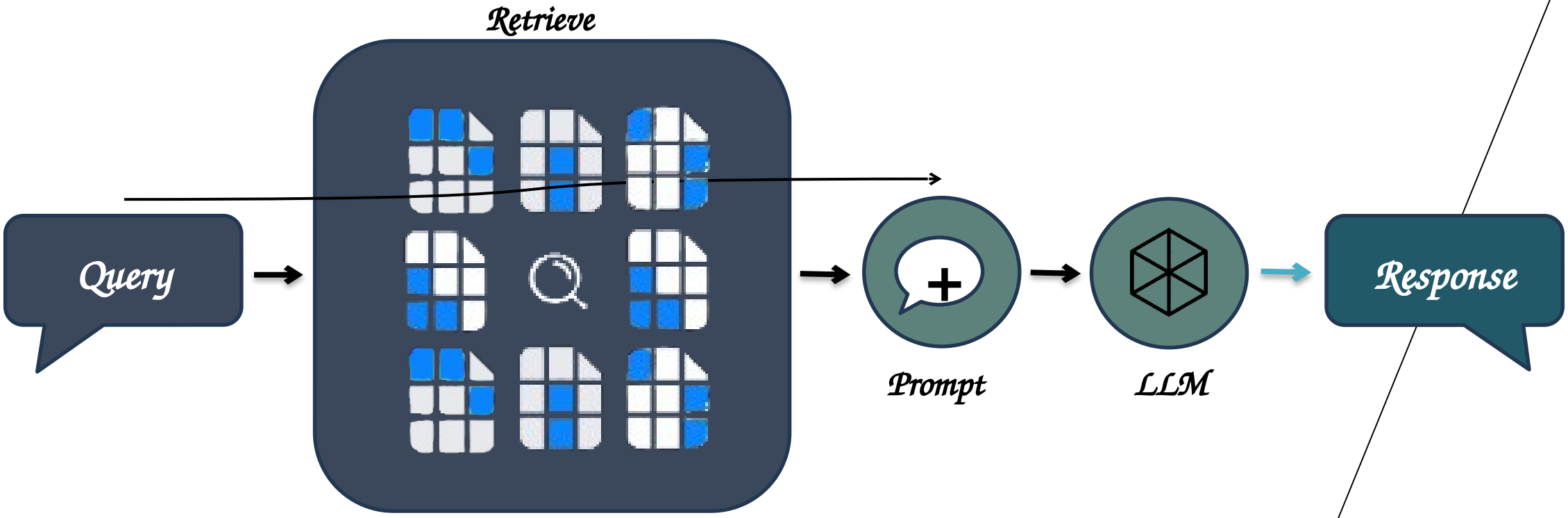
Road To AGI


OpenAI Imagines Our AI Future
Stages of Artificial Intelligence
Level 1
Chatbots, AI with conversational language
Level 2
Reasoners, human-level problem solving
Level 3
Agents, systems that can take actions
Level 4
Innovators, AI that can aid in invention
Level 5
Organizations, AI that can do the work of an organization
Source: Bloomberg reporting
Bloomberg

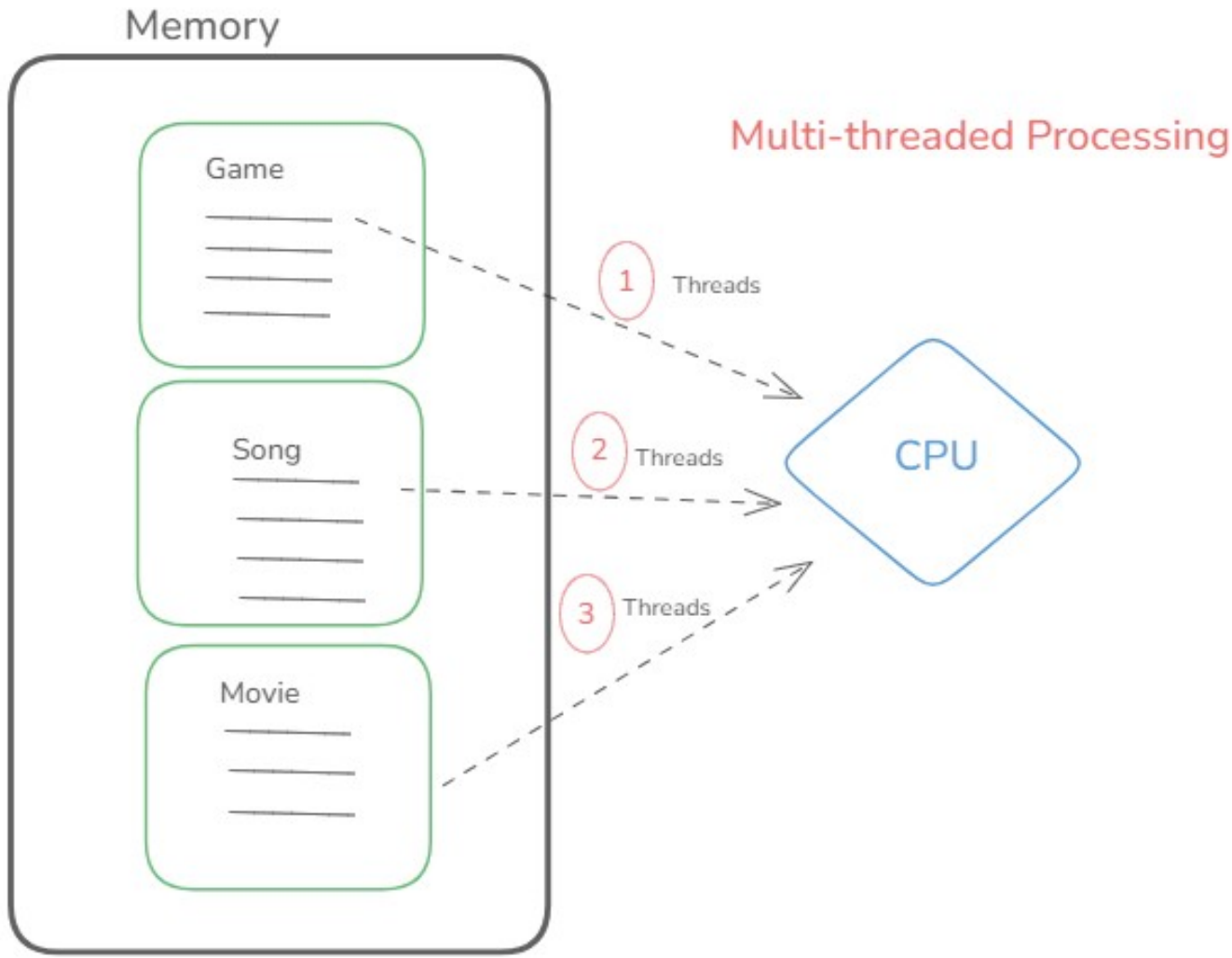
How Does LLM Works

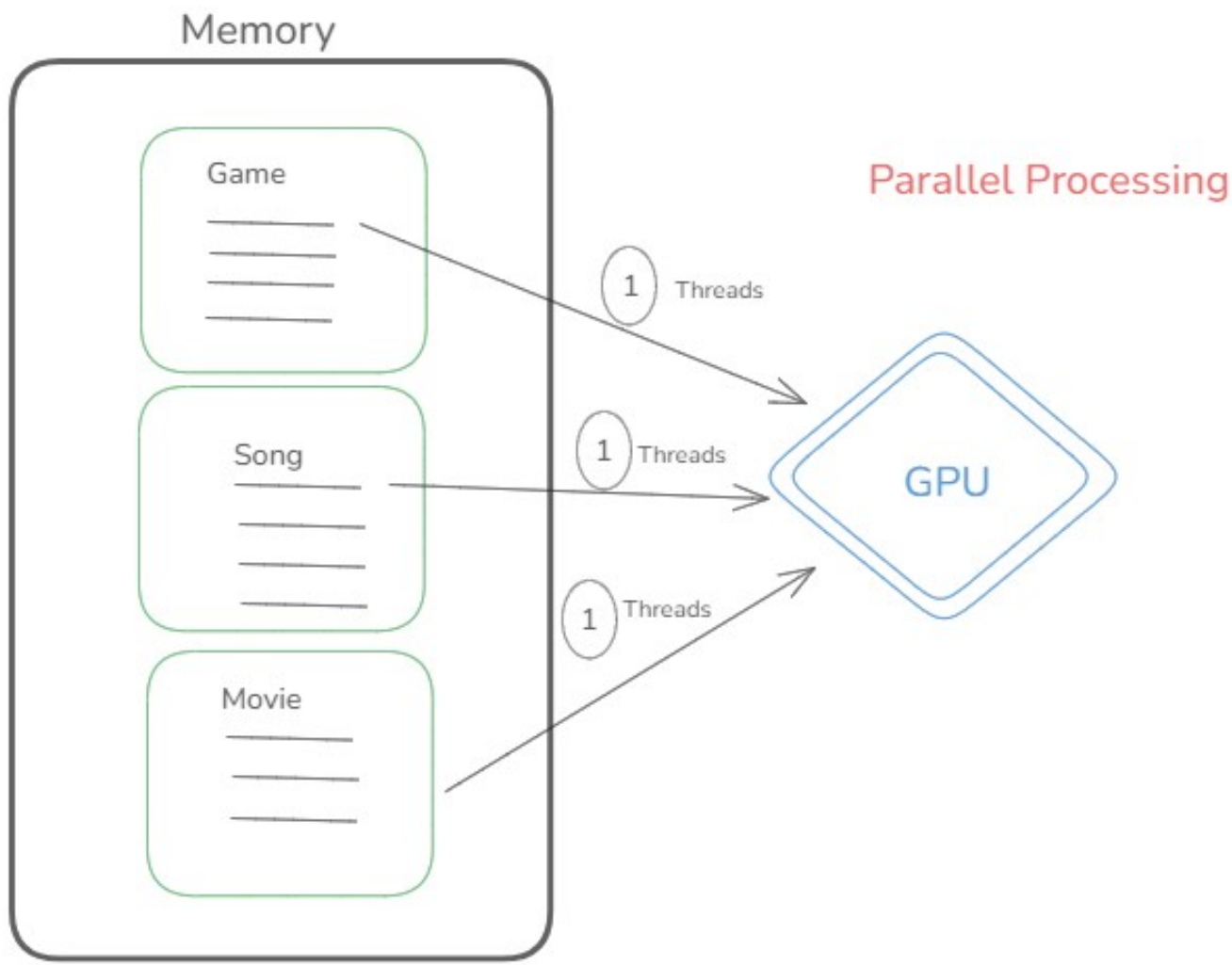
https://www.youtube.com/watch?v=LPZh9BOjkQs&t=126s

Retrieval Augmented Generation (RAG)



LangChain Ecosystem


Memory
Game
Song
Movie
Multi-threaded Processing
1
Threads
2
Threads
3
Threads
CPU


Memory
Game
Song
Movie
Parallel Processing
1
Threads
1
Threads
1
Threads
GPU