world war 3 (2023-present) The Agentic Era

2023: GPT-4 arrives
- Multimodal (text + image), more reliable reasoning, fewer hallucinations.
- Marks a shift from tool-like assistants to reasoning agents capable of multi-step task

Open-Source Resistance Rises
- LLaMA, Mistral, Mixtral, and Phi-2 challenge the giants
- Lightweight, efficient models challenge the big closed-source giants.
- Spark a new AI cold war: open vs. closed, fast vs. massive.

AI Agents emerge: AutoGPT, BabyAG
- Wrap LLMs with autonomy loops: goal-setting, planning, tool use, and execution.
- Transform LLMs from static chatbots to independent agents that take initiative.
- e,g "Write a business plan" or "Build a website".

LangChain + LangFlow lead the charge in orchestration
- Provide tools to string LLMs together into multi-step, multi-agent workflows.
- Combine memory, tools, APIs, search, and reasoning in real-time.

Multi-modal superweapons: text, image, video, code, voice – all generated seamlessly.
- GPT-4V (Vision): interprets images.
- Sora (OpenAI): text-to-video.
- Whisper + TTS: voice-to-text and back.
- Code interpreters + voice agents: true multi-modal interactions.

Retrieval-Augmented Generation (RAG) becomes standard intel protocol
- LLMs + live external knowledge bases = accurate, up-to-date answers.
- Now a standard design pattern for production AI systems.

Agentic AI

MCP (Multi-Agent Collaboration Protocol)

A2A

AI evolves from