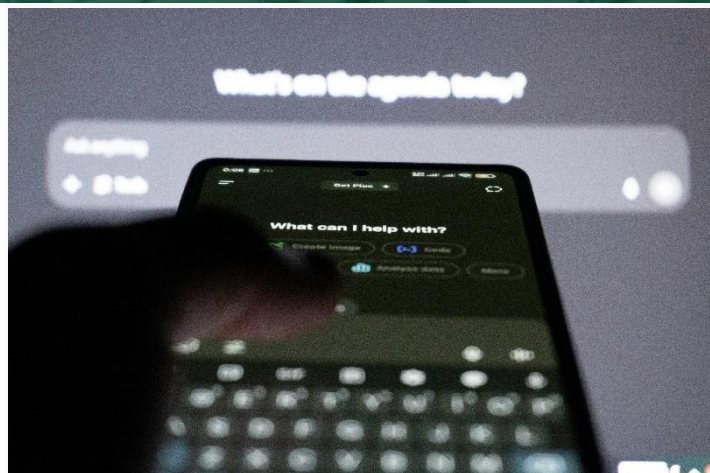


ECONOMIC RESEARCH – NOVEMBER 2025

INVESTMENT INSIGHT

ARTIFICIAL INTELLIGENCE



- ✓ The complex AI ecosystem: 5 years that changed everything
- ✓ The situation at the end of 2025: A stratified ecosystem

2026 WILL SEE THE END OF THE BETA FACTOR AND THE RETURN OF MICROANALYSIS

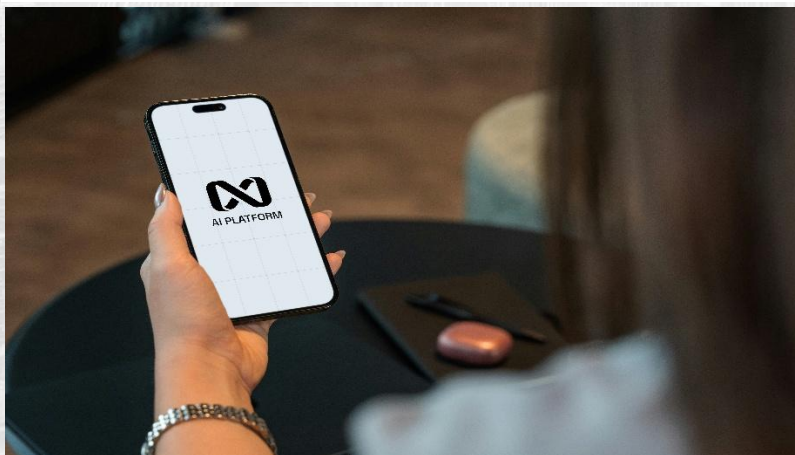
Generative AI: Explosive market emergence

Artificial Intelligence has moved from academic obscurity to a central corporate and economic strategic driver in just five years, catalyzed by the breakthrough of generative AI. This period was defined not by slow, linear evolution, but by a frantic, exponential race for performance and immediate public access. The market is shifting toward "The Great Sorting" in 2026, where the core investment question will pivot from mere adoption ("Do you use AI?") to demonstrable financial return ("How much does it earn you?").

The ChatGPT defining moment (2021-2022)

The revolution was launched through six astonishingly rapid phases. The first was the Dawn of Creativity (2021-2022) with the public release of DALL-E and Stable Diffusion, democratizing visual AI. This was immediately followed by the pivotal "ChatGPT Moment" (November 2022). OpenAI's simple yet competent chatbot transformed AI from a research concept into a global phenomenon in a matter of weeks, officially triggering the subsequent market frenzy and the highly competitive "AI Wars" of 2023. This phase saw a direct and frenetic response from major tech players, notably with Microsoft integrating AI into Bing and Google launching Bard, while OpenAI countered with GPT-4 to accelerate the performance race.

Artificial Intelligence



Open vs. closed ecosystem divide

The industry quickly fractured along ideological and commercial lines (2023-2024). The market split between "walled gardens" (Closed Ecosystems) led by OpenAI and Anthropic, which prioritized proprietary performance and premium APIs, and the "open" ecosystem. This open alternative was powerfully driven by Meta's release of Llama 2 and 3, which enabled total model control and customization for startups and enterprises concerned with data sovereignty. This division offers clients a fundamental choice between ease of use via closed platforms and flexibility via open-source "guerrilla warfare."

Infrastructure crisis and hardware oligopoly

The explosive growth in AI model complexity and usage immediately translated into an infrastructure crisis (2023-Present). Demand for the specialized chips required for training and running these models (GPUs) skyrocketed, transforming computing power into the central industry bottleneck. NVIDIA CEO Jensen Huang has become the pivotal figure, with access to high-performance chips, specifically the H100 series, becoming a matter of strategic survival for tech giants. NVIDIA thus controls the hardware foundation, making it the most profitable player in the entire AI value chain by maintaining an effective oligopoly on necessary compute resources.

Era of natively multimodal agents

AI capabilities rapidly evolved beyond text processing (2024-2025). The introduction of GPT-4o (OpenAI) and Gemini 2.5 (Google) marked the definitive advent of "natively multimodal" AI. These advanced models can process and generate information across multiple sensory inputs—seeing, hearing, and speaking—all in real-time. This functional expansion is critical, paving the way for the development of sophisticated, autonomous AI "agents" capable of performing complex, multi-step tasks and interacting with the digital and physical world in a highly integrated and contextual manner.

Market stratification and integration battle

By the end of 2025, the market is structurally stratified and dominated by a few players. The primary battle has shifted from achieving the "best model" to securing the "best integration." At the top, OpenAI/Microsoft and Google dominate the closed market. Meta leads the crucial open-source alternative. However, the next frontier is seamless user integration, with tech titans like Apple (Apple Intelligence), Microsoft (Copilot), and Google (Ecosystem efforts) vying to embed AI so deeply into operating systems and user workflows that its presence becomes virtually invisible.

