

6. Artificial Intelligence (AI)- Science & Technology

The current AI boom is driven by massive global spending (\$375B) and inflated valuations of tech giants which significantly outpace actual returns, raising fears of a bubble similar to the dot-com era. However, unlike the dot-com bubble, today's surge is distinguished by substantial real investment in physical infrastructure like data centers and semiconductors rather than just speculative websites.

The Surge in Global AI Spending

Projected Growth- Global spending on Artificial Intelligence (AI) is witnessing an aggressive upward trajectory.

Current Year Estimates- Projected to reach \$375 billion.

2026 Projections- Expected to surge to \$500 billion.

The Core Debate- This massive influx of capital raises a fundamental question about the drivers of value it driven by genuine technological progress or is it fuelled primarily by investor enthusiasm?

Understanding the "AI Bubble"

Definition- The AI bubble refers to the growing concern that the market valuation of AI technology companies and related investments has become dramatically overvalued.

The Disconnect- There is a significant disparity where market valuations and investment levels are vastly outpacing Actual financial returns generated by these companies. The real-world implementation and deployment of the technology.

Historical Parallel- This phenomenon represents a potential stock market bubble that shares concerning similarities with the dot-com boom of the late 1990s.

The Dot-Com Bubble

The dot-com bubble was a volatile period defined by the rapid rise and sudden collapse of internet-based company valuations between the late 1990s and early 2000s.

Reasons for the Bubble

Internet Hype & Narrative- The internet was viewed as a revolutionary force guaranteed to "change everything." Investors operated on the belief that profits would inevitably follow, disregarding current losses.

Easy Money & Speculation- The market saw abundant participation from both Venture Capitalists (VCs) and retail investors. Initial Public Offerings (IPOs) of startups were heavily oversubscribed, even for companies with minimal or no revenue.

"Growth Over Profits" Mindset- Companies prioritized vanity metrics like website traffic and brand **visibility** over actual earnings. Traditional financial valuation metrics were largely ignored in favor of growth narratives.

Impact and The Crash

Cash Burn- Many dot-com firms burned through cash reserves without ever establishing viable revenue models.

The Trigger- When interest rates rose and earnings reports disappointed, investor confidence shattered, leading to a market collapse.

The Survivors- Despite the crash, resilient companies adapted and built substantial value

Google, Amazon, and Microsoft- Survived by pivoting to build real, sustainable businesses.

Amazon- Diversified beyond retail into cloud computing.

Microsoft- Rebuilt its value through long-term strategic shifts.

Key Indicators of AI Bubble-Like Characteristics

Current market trends exhibit three specific "bubble-like" warning signs.

Valuation Extremes

Dominance of the "Magnificent Seven"- Technology giants (NVIDIA, Microsoft, Alphabet, Amazon, Meta, Tesla, and Apple) now comprise approximately 30% of the S&P 500's total market cap. This dominance is largely fuelled by enthusiasm for AI.

Speculative Pricing

OpenAI- Valuation tripled despite revenue being only in the hundreds of millions.

Expectation vs. Reality- Analysts estimate that nearly 25% of current valuations are based solely on the *expectation* of future financial benefits, rather than current results.

Excessive Capital Investment

VC Concentration- AI venture capital funding now accounts for 58% of all venture capital investment in 2025.

Crowding Out- This intense focus on AI is crowding out investment in other sectors.

Risk- If AI disappoints, a substantial portion of total market capitalization risks evaporating.

Gap Between Hype and Implementation

The Disconnect- A critical gap exists between the market's sky-high expectations and the actual deployment of the technology in businesses.

Execution Failure- Companies frequently announce major AI projects and product roadmaps without possessing the necessary capital or infrastructure to actually execute them.

Comparison- The Dot-Com Era vs. The AI Boom

While similarities exist, there are distinct structural differences between the two periods.

Feature	Dot-Com Bubble (Late 90s)	AI Boom (Current)
Primary Asset Class	Speculative Websites- Intangible assets often with no physical backing.	Physical Infrastructure- Massive real investment in data centers, semiconductor manufacturing, and AI grids.
Capital Intensity	Low (Digital-first focus).	High (Capital-intensive physical assets).
Underlying Value	Often relied on "eyeballs" and traffic metrics.	Suggests potential for genuine productivity and research gains.
"Unprecedented" Feature	High stock prices based on future promises.	Massive <i>real</i> investment in tangible assets, not just stock prices.

Risks of Market Concentration

A small, elite group of firms currently dominates the AI landscape. This concentration creates systemic risks

Wealth Effect- If these giants fail, wealthy investors may drastically cut spending.

Economic Impact- Broader economic growth could suffer due to the sheer size of these entities.

Disproportionate Fallout- Smaller firms, suppliers, and workers would face the brunt of the collapse.

Infrastructure Waste- Idle, failed data centers run the risk of becoming the "abandoned malls" of the AI era.

The Way Ahead

Transformative Potential- AI represents a genuine technological shift with long-term economic potential, despite the current hype.

Nature of Correction- If a market correction occurs, it is likely to weed out unsustainable players rather than derail the AI industry entirely.

The Core Challenge- Success depends on aligning innovation with- Sound business models. Effective regulation. Skill development.

Ultimate Outcome- AI's long-term impact will not depend on market exuberance, but on its ability to deliver durable, inclusive, and productivity-enhancing growth.

Source- <https://www.thehindu.com/podcast/in-focus-parley-is-the-artificial-intelligence-boom-a-bubble/article70412059.ece>