



What is DeepSeek?

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On the 20th of January 2025, a Chinese AI company called DeepSeek released a new AI model called R1. Within days, it had topped the App Store charts globally. Nvidia's share price dropped nearly 17% in a single day — wiping almost \$600 billion off its value, the largest single-day loss in stock market history. What had happened?

What is DeepSeek?

DeepSeek is an AI research lab based in Hangzhou, China, founded in 2023 as a subsidiary of the quantitative hedge fund High-Flyer. It focuses on developing large language models — the same type of AI that powers ChatGPT and Google's Gemini. What made DeepSeek remarkable wasn't just that it was good. It was that it was apparently built for a fraction of what American competitors had spent.

🏎️ Imagine a Formula 1 team spending £500 million building a car, only to find a new team had built something just as fast for £5 million using different engineering approaches. The expensive teams wouldn't just be embarrassed — investors would start questioning whether all that spending had been necessary. That's essentially what happened to the AI industry when DeepSeek appeared.

Why did it shake markets so badly?

The AI boom had been built on a particular assumption: that building world-class AI required enormous quantities of expensive Nvidia chips. American restrictions on chip exports to China meant Chinese companies were supposed to be handicapped. If DeepSeek could build competitive models using fewer, less advanced chips — which its published research suggested — then the entire investment case for the chip industry needed rethinking. Hence Nvidia's historic share drop.

Is it actually that good?

Independent benchmarks suggested DeepSeek R1 was genuinely competitive with leading American models on reasoning tasks. The "chain of thought" approach it uses — where the model works through problems step by step, showing its reasoning — was particularly impressive. However, the claims about training costs have been

scrutinised. Critics argue the real cost was probably higher than reported, and that DeepSeek benefited from research and techniques developed by the companies it was being compared to.

What does it mean?

At minimum, DeepSeek demonstrated that AI development may be more efficient than assumed, that China is a more serious AI competitor than many in the West had acknowledged, and that the AI race is not simply won by whoever spends the most money on chips. It was a genuine shock to a tech industry that had become somewhat complacent about its lead.