

Business English News 59 – DeepSeek

A surprise development in **artificial intelligence** is **making waves** across the industry. **DeepSeek**, a Chinese AI **lab**, has **upended expectations**, **drawing** global **attention** and raising new questions about the future of AI. With new **players** entering the **field** and established **giants** forced to respond, this moment could **redefine** how AI is built, funded, and controlled in the years ahead. The drama **kicked off** at the start of the year, as the Financial Times reports:

A small Chinese artificial intelligence lab **stunned** the world by **revealing** the **technical recipe** for its **cutting-edge model**. This has **transformed** its **reclusive** leader into a national hero who has **defied** US attempts to stop China's high-tech **ambitions**. DeepSeek, **founded** by **hedge fund** manager Liang Wenfeng, released its **R1 model**, explaining in a detailed **paper** how to build a **large language model** on a **bootstrapped** budget.

The AI **landscape** has long been **dominated** by companies with **deep pockets** and **vast** computing power. But recent **breakthroughs** suggest that **innovation** may not always require billion-dollar budgets. As new approaches **gain traction**, the race to improve AI is **shifting** - potentially making advanced capabilities more **accessible** and forcing even the biggest firms to **rethink** their strategies. According to Wired:

Instead of trying to create larger and larger models that require increasingly **exorbitant** amounts of computing resources, AI companies are now focusing more on developing advanced capabilities, like **reasoning**. That has created an **opening** for smaller, innovative startups such as DeepSeek that haven't received billions of dollars in **outside investment**. "It's a **paradigm shift** towards reasoning, and that will be much more **democratized**," says Ali Ghodsi, CEO of Databricks, a company that specializes in building and **hosting** custom AI models.

Understanding this shift requires looking beyond the technology itself. AI breakthroughs don't happen **in isolation** - they are shaped by the people, institutions, and the business **interests** behind them. The **origins** of this rising AI **powerhouse**, along with its founder's background, **shed light on** how it has managed to challenge much larger and better-funded competitors. As the Business Times explains:

DeepSeek is based in Hangzhou and its **controlling shareholder** is Liang Wenfeng. The 40-year-old graduate of Zhejiang University **co-founded quantitative hedge fund** High-Flyer Quant in 2015, which became known for innovatively using **AI-driven trading strategies**. The fund announced in 2023 that it was going beyond trading to focus on creating a new research **arm to explore "artificial general intelligence."**

Until Wenfeng and DeepSeek arrived on the **global scene**, the AI **hype** was dominated by major American tech firms. The **bullishness** on AI was **inspired** primarily by OpenAI and Microsoft, Google, Meta, and Amazon. And behind much of this **frenzy** has been **chipmaker** Nvidia. DeepSeek's arrival prompted questions about American tech's **blind spots**, and the markets reacted accordingly, as Tovima.com explains:

The launch of DeepSeek **turned Wall Street upside down**. Nvidia's stock **dropped** 17% to its lowest level since October. The **S&P 500's** technology **sector** lost 5.6%, its worst one-day **decline** in more than four years. In all, the initial **bloodbath wiped out** some \$1 trillion from the stock market's value. Leon Cooperman, the billionaire **stock picker** who founded Omega Family Office, is one of many investors who says the **euphoria** surrounding the sector has **reached unsustainable heights**.

But if anything, this **shake-up** has only **fueled** the AI **arms race**. Rather than **scaling back**, the world's largest tech firms are **doubling down, pouring** even more money into artificial intelligence. Despite questions about long-term profitability, industry leaders remain convinced that **aggressive** investment is the only way to **stay ahead** in an increasingly **unpredictable** market. Again from the Financial Times:

Big Tech's massive spending on artificial intelligence is set to continue **unchecked** in 2025 after Amazon **topped** its **rivals** with a planned \$100 billion investment in **infrastructure** this year. Spending by the four leading US tech companies had already **surged** 63 per cent to **historic levels** last year. Now executives are **vowing** to **accelerate** their AI investments, **dismissing** concerns about the vast sums being **bet on** the **nascent** technology.

With competition accelerating, one question **looms large**: Is AI development still **dictated** by a handful of **dominant** players, or are we entering an **era** where smaller **challengers** can **reshape** the industry? As innovation spreads and new **business models emerge**, the next **phase** of AI could look very different from what we've seen so far. As Yahoo Finance reports:

Ritwik Gupta, AI policy **researcher** at the University of California, Berkeley, said DeepSeek's recent model **releases** demonstrate that "there is no **moat** when it comes to AI capabilities. The first person to **train** models has to **expend** lots of resources to get there," he said. "But the second **mover** can get there cheaper and faster."

Vocabulary

Artificial Intelligence: The ability of computers or machines to perform tasks that usually require human thinking, such as writing, problem-solving, and decision-making. "Artificial intelligence helps businesses automate customer service through chatbots."

To make waves: To cause a strong reaction or big changes in an industry. "The new AI company is making waves with its groundbreaking technology."

DeepSeek: A company or project focused on AI research and development. "DeepSeek has introduced a powerful AI model that challenges industry leaders."

Lab: A place where research and experiments are conducted. "The AI lab is working on new algorithms to improve machine learning."

To upend expectations: To surprise people by doing something completely different from what was expected. "DeepSeek's new AI model has upended expectations in the tech world."

To draw attention: To make people notice something. "The startup drew attention after announcing a major breakthrough in AI."

Player: A company or individual that is important in a certain industry. "DeepSeek has quickly become a key player in the AI field."

Field: A specific area of work, study, or interest. "AI is a rapidly growing field with many new opportunities."

Giant: A company that is very large and powerful in its industry. "Tech giants like Google and Microsoft are competing in AI development."

To redefine: To change the meaning or way something is understood. "DeepSeek aims to redefine how AI models process information."

To kick off: To start something, especially an event or project. "The company kicked off its AI research with a new lab in Shanghai."

To stun: To surprise or shock people. "The accuracy of the AI model stunned experts in the industry."

To reveal: To make something known that was previously hidden. "The company revealed its latest AI project at the tech conference."

Technical recipe: A set of instructions or methods for building a technology. "The researchers shared the technical recipe for training AI models efficiently."

Cutting-edge: Very advanced and modern. "DeepSeek's cutting-edge AI technology is attracting major investors."

Model / AI model: A system trained to perform tasks using artificial intelligence. "This AI model can generate human-like text with high accuracy."

To transform: To change something completely. "AI has transformed the way businesses analyze data and make decisions."

Reclusive: Avoiding public attention or interaction. "The reclusive AI researcher rarely gives interviews."

To defy: To go against common beliefs or expectations. "DeepSeek's latest project defies traditional AI development methods."

Ambitions: Strong desires or goals for success. "The company's ambitions include becoming a leader in AI research."

Founded: Established or started. "DeepSeek was founded by a group of AI researchers in China."

Hedge fund: A financial company that invests money in high-risk, high-return opportunities. "The hedge fund invested millions in AI startups."

R1 model: Commonly used by AI companies to signify an initial release or foundational version. "The R1 model has shown impressive language processing capabilities."

Paper: A written research document published by scientists or experts. "Their paper on AI ethics was widely discussed in the tech community."

Large language model / LLM: A type of AI model trained on vast amounts of text data. "GPT-4 is a well-known large language model used for various applications."

Bootstrapped: Started with little or no outside investment. "The startup was bootstrapped for years before receiving funding."

Landscape: The overall situation or structure of an industry. "The AI landscape is constantly changing with new advancements."

To dominate: To control or lead a market or industry. "Big tech companies dominate the AI sector with their advanced models."

Deep pockets: Having a lot of money or financial resources. "Companies with deep pockets can afford to invest heavily in AI research."

Vast: Very large or extensive. "The AI model was trained on a vast amount of data from the internet."

Breakthrough: A major discovery or innovation. "The development of DeepSeek's AI model was a breakthrough in natural language processing."

Innovation: The creation of new and improved ideas or technologies. "AI-driven automation is one of the biggest innovations in the business world."

To gain traction: To become more popular or widely accepted. "DeepSeek's AI model is gaining traction among developers and businesses."

To shift: To change direction or focus. "The company shifted its focus from traditional AI to large language models."

Accessible: Easy to reach or use. "The new AI platform is accessible to businesses of all sizes."

To rethink: To change the way something is thought about or approached. "Companies are rethinking their strategies because of AI advancements."

Exorbitant: Extremely high or expensive. "Training large AI models requires an exorbitant amount of computing power."

Reasoning: The process of thinking logically to make decisions. "The AI model has strong reasoning skills and can analyze complex problems."

Opening: An opportunity to do something new or beneficial. "DeepSeek's success created an opening for smaller AI startups to compete."

Outside investment: Money from external sources, such as venture capitalists or corporations. "The company secured outside investment to expand its AI research."

Paradigm shift: A major change in the way people think or do things. "AI is causing a paradigm shift in how businesses operate."

Democratized: Made available to more people, not just a few experts or elites. "Open-source AI tools have democratized access to advanced technology."

To host: To provide the infrastructure or server space for websites, applications, or online services. "The company hosts its AI model on a cloud server to ensure fast and reliable access."

In isolation: Separately, without connection to other factors. "The data must be analyzed in isolation to understand its impact."

Interests: Areas of focus, business concerns, or financial stakes. "Tech companies have strong interests in AI development."

Origins: The beginning or source of something. "The origins of DeepSeek's AI research can be traced back to university labs."

Powerhouse: A company or organization that is very strong or influential. "DeepSeek is becoming a powerhouse in the AI industry."

To shed light on: To explain or make something clearer. "The report sheds light on the risks of AI automation in finance."

Controlling shareholder: A person or entity that owns most of a company's shares and has decision-making power. "The controlling shareholder approved the company's expansion into AI."

To co-found: To start a company or organization together with others. "He co-founded an AI startup focused on deep learning research."

Quantitative hedge fund: A fund that uses mathematical and statistical models to make investment decisions. "The quantitative hedge fund relies on AI to analyze market trends."

Driven: Motivated by a goal or purpose. "The company is driven by a vision to make AI more accessible."

Trading strategies: Plans or methods used to buy and sell financial assets. "AI is now used to develop more advanced trading strategies."

Arm: A division or branch of a company. "The company's AI research arm is working on a new language model."

To explore: To investigate or consider new possibilities. "They are exploring ways to integrate AI into healthcare."

Artificial General Intelligence: AI that can perform a wide range of tasks at a human-like level. "Many researchers believe artificial general intelligence is still decades away."

Global scene: The worldwide industry or market. "DeepSeek is making a name for itself on the global AI scene."

Hype: Extreme excitement or publicity around something. "The hype around AI-powered chatbots has led to increased investment."

Bullishness: Confidence or optimism about the success of something. "Investors' bullishness on AI stocks has driven market growth."

To inspire: To encourage or influence someone to act. "DeepSeek's breakthrough has inspired new AI startups."

Frenzy: A period of intense activity or excitement. "The AI investment frenzy has led to skyrocketing stock prices."

Chipmaker: A company that manufactures computer chips. "Major chipmakers are racing to develop faster processors for AI."

Blind spot: An area of weakness or something not noticed. "Many companies have a blind spot when it comes to AI ethics."

To turn something upside down: To completely change something. "AI has turned the job market upside down by automating many roles."

Wall Street: The financial sector in the U.S., especially related to the stock market. "Wall Street is closely watching the rise of AI-driven businesses."

To drop: To decrease suddenly in value or amount. "AI stocks dropped sharply after the company's disappointing earnings report."

S&P 500: A stock market index of 500 large U.S. companies. "AI companies now make up a significant portion of the S&P 500."

Sector: A specific part of the economy or industry. "The tech sector has seen massive investment in AI development."

Decline: A decrease in value, quality, or performance. "The decline in semiconductor sales affected AI research funding."

Bloodbath: A situation where many investments lose value rapidly. "The stock market bloodbath wiped out billions in AI funding."

To wipe out: To remove or destroy completely. "The market crash wiped out years of AI investment gains."

Stock picker: An investor who selects individual stocks rather than investing in an index. "Stock pickers are betting on AI companies for high returns."

Euphoria: A feeling of extreme excitement or optimism. "The early success of AI startups created a sense of euphoria among investors."

To reach heights: To achieve great success or a very high level. "The AI industry has reached new heights with recent breakthroughs."

Unsustainable: Unable to continue at the same rate or level. "The rapid growth of AI investments may be unsustainable in the long term."

Shake-up: A major change in an industry or organization. "The rise of AI has led to a shake-up in the job market."

To fuel: To drive or increase something. "AI research is fueling competition between major tech firms."

Arms race: A competition where companies or countries try to outdo each other with new technology. "The AI arms race has led to massive investment in machine learning."

To scale back: To reduce or decrease operations. "The company had to scale back its AI projects due to funding cuts."

To double down: To increase effort or investment in something. "Despite setbacks, the company is doubling down on AI research."

To pour: To invest or spend large amounts of money. "Investors are pouring billions into AI startups."

Aggressive: Strong, bold, or forceful in strategy or actions. "The company's aggressive expansion into AI is reshaping the industry."

To stay ahead: To maintain a leading position. "Tech giants are constantly innovating to stay ahead in AI development."

Unpredictable: Difficult to forecast or control. "The impact of AI on jobs remains unpredictable."

Big Tech: The largest and most powerful technology companies. "Big Tech is leading the way in AI advancements."

Unchecked: Without limits or control. "There are concerns about the unchecked growth of AI in sensitive areas like surveillance."

To top: To exceed or surpass something. "The new AI startup topped its funding goal in just a few days."

Rival: A competitor in the same industry or market. "DeepSeek is becoming a strong rival to established AI companies."

Infrastructure: The basic systems and technology needed for a business or industry to operate. "AI models require powerful cloud infrastructure to function efficiently."

To surge: To increase suddenly and rapidly. "Investment in AI startups has surged in the past year."

Historic levels: An amount or degree that is higher than ever before. "AI stock prices have reached historic levels due to growing demand."

To vow: To make a strong promise or commitment. "The company vowed to develop AI responsibly and ethically."

To accelerate: To speed up a process. "The new AI chips will accelerate machine learning development."

To dismiss: To reject or ignore something as unimportant. "The CEO dismissed concerns about AI replacing human jobs."

To bet on: To invest in or support something because of belief in its success. "Investors are betting on AI to drive the future of technology."

Nascent: In the early stages of development. "The nascent AI industry is evolving rapidly with new breakthroughs."

To loom large: To appear as an important or worrying issue. "Concerns about AI regulation loom large among tech leaders."

To dictate: To control or influence something strongly. "Market trends dictate how companies invest in AI technology."

Dominant: Having the most power or influence. "A few dominant companies control much of the AI research space."

Challengers: Companies or individuals that compete against industry leaders. "New AI startups are emerging as challengers to Big Tech."

To reshape: To change the structure or nature of something. "AI is reshaping industries from healthcare to finance."

Business model: The way a company makes money and operates. "AI is forcing companies to rethink their business models."

To emerge: To become visible or important. "China has emerged as a major player in AI research."

Phase: A stage in a process of development. "The AI project is entering its final testing phase."

Researcher: A person who studies and develops new knowledge or technology. "AI researchers are working to improve machine learning algorithms."

Release: The launch or publication of a product or information. "The company announced the release of its latest AI model."

Moat: A competitive advantage that protects a company from rivals. "DeepSeek's access to massive datasets gives it a strong moat in AI development."

To train / To train a model: To teach an AI system by feeding it data so it can learn patterns and improve. "The team trained the AI model using millions of text documents."

To expend: To use up resources such as time, money, or energy. "Training large AI models expends massive computing power."

Mover: A company or person that drives change or progress in an industry. "DeepSeek is a key mover in the AI space, pushing new innovations."

Language Review

A. Collocations

Match words from each column to make collocations found in the article.

1. Deep	a. Attention	
2. To upend	b. Off	
3. To kick	c. Expectations	
4. To make	d. Large	
5. To draw	e. Waves	
6. Controlling	f. Shift	
7. Paradigm	g. Pockets	
8. To loom	h. Shareholder	

B. Vocabulary Quiz

- Which of the following expressions does NOT mean to surprise people or cause a strong reaction?
 - To stun
 - To wipe out
 - To make waves
 - To upend expectations
- Which of the following words describes a situation where there is a lot of energy or excitement about something? Select all that apply:
 - Bootstrap
 - Euphoria
 - Moat
 - Nascent
 - Hype
 - Reclusive
 - Frenzy
 - Bloodbath

3. Which of the following words are synonyms, or have basically the same meaning? Select all that apply:
- a. To rethink
 - b. To resist
 - c. To redefine
 - d. To release
4. Although the AI _____ has been dominated by a few big powerhouses, DeepSeek shows there are smaller _____ that might reshape the industry.
- a. Origins / shareholders
 - b. Landscape / challengers
 - c. Shake-up / hedge funds
 - d. Scene / phases
5. If an amount or number increases dramatically, then we can say it _____.
- a. Surges
 - b. Looms
 - c. Defies
 - d. Shifts
6. Which of the following expressions might we use to describe companies such as Google, Meta, Microsoft, and Apple? Select all that apply:
- a. Breakthroughs
 - b. Interests
 - c. Giants
 - d. Big Tech
7. If a situation, success, or level of growth cannot continue in the same way, then it is _____.
- a. Historic
 - b. Unpredictable
 - c. Democratized
 - d. Unsustainable
8. If something becomes more and more popular, then we say it gains...
- a. ...a paradigm shift.
 - b. ...traction.
 - c. ...blind spots.
 - d. ...heights.

Answers

A. Collocations

1/g, 2/c, 3/b, 4/e, 5/a, 6/h, 7/f, 8/d

B. Vocabulary Quiz

1/b, 2/b, e, g, 3/a, c, 4/b, 5/a, 6/c, d, 7/d, 8/b