

DeepSeek: The AI Revolution Redefining Global Competition and India's Strategic Role

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DeepSeek AI Latest News

- Chinese startup DeepSeek has launched AI models that compete with top U.S. models at a much lower cost.
- In December 2024, the company revealed that training its DeepSeek-V3 model cost less than \$6 million using Nvidia H800 chips. DeepSeek's AI Assistant is now the top-rated free app on Apple's U.S. App Store, beating ChatGPT.

- This has raised questions about why U.S. tech companies are spending billions on AI. It has also affected the stock prices of big companies like Nvidia.

DeepSeek: A New Chatbot Rival to ChatGPT

- DeepSeek is a free AI-powered chatbot that functions similarly to ChatGPT. It can perform various tasks, though its effectiveness compared to rivals remains debated.

IT TOOK ONLY **\$5.6MN** TO CREATE

➤ Founded in May 2023 by Liang Wenfeng, who also founded and runs a hedge fund called High-Flyer	➤ The AI model sidetracks questions on itself and Chinese politics
➤ DeepSeek's headquarters is in the Chinese city of Hangzhou	➤ DeepSeek's first AI model — launched in Nov 2023 — was called DeepSeek Coder
➤ Paid access to its new model reportedly comes at 3% of what OpenAI charges	➤ DeepSeek became #1 downloaded free app on Apple App Store, displacing ChatGPT which, though, has higher total downloads

Performance and Efficiency

- DeepSeek's R1 model is reportedly as powerful as OpenAI's o1, excelling in mathematics and coding.
- It is a "reasoning" model that processes responses incrementally, using less memory and reducing operational costs.

Censorship and Limitations

- Like other Chinese AI models, DeepSeek avoids politically sensitive topics.
- When asked about the Tiananmen Square massacre, it refused to provide details, highlighting Chinese government-imposed censorship.

Cost-Effective AI Development

- DeepSeek claims to have trained its model for just \$6 million, significantly lower than the over \$100 million OpenAI spent on GPT-4.
- The company's founder reportedly stockpiled Nvidia A100 chips—banned from export to China since 2022—pairing them with cheaper chips to develop the AI.

Security Challenges and Outages

- After becoming the most-downloaded free app on Apple's U.S. App Store, DeepSeek faced large-scale cyberattacks, forcing temporary registration limits.
- The company also experienced website outages.

DeepSeek: Causing a Stir

DeepSeek Challenges U.S. AI Dominance

- The launch of OpenAI's ChatGPT in 2022 spurred Chinese tech firms to develop their own AI chatbots.
- However, early models, such as Baidu's, failed to meet expectations, highlighting a gap between Chinese and U.S. AI capabilities.
- DeepSeek has reversed this perception with high-quality and cost-efficient models.

DeepSeek's Cost-Effective Advantage

- DeepSeek's AI models, DeepSeek-V3 and DeepSeek-R1, have received praise from Silicon Valley executives and engineers.
- The company claims its models match OpenAI and Meta's best AI systems while being significantly cheaper to use.

The AI Race: A Strategic Moment for India

- PM Modi's upcoming participation in the AI summit in Paris highlights India's need to carefully assess the implications of the escalating AI competition between the US and China, especially following the release of DeepSeek R1.

The DeepSeek-Sputnik Parallel

- DeepSeek R1's release is being compared to the Soviet Union's launch of Sputnik in 1957, which shocked the US and spurred an intense space race.
- Similarly, DeepSeek has intensified the technological rivalry between the US and China, setting a new frontier for great power competition.

US-China AI Rivalry: A Bipolar Landscape

- China, with its large GDP and investments in frontier technologies, is a formidable AI competitor to the US.
- The competition is expected to remain bipolar, leaving other nations, including India, struggling to keep pace. However, how this rivalry unfolds remains uncertain.

Doing More with Less: Lessons for Middle Powers

- DeepSeek has demonstrated the potential to achieve innovation with limited resources.

- This provides hope for middle powers like India and France, which cannot match US-China spending but can still remain relevant in the AI domain by focusing on strategic innovation and cooperation.

Sovereign AI and Partnerships

- India and France advocate for “Sovereign AI,” focusing on balancing cooperation with the US and independent AI development.
- A partnership model between the US and its allies, including India, could help compete with China.
- However, India must address US concerns about technology leakage to Russia to strengthen this partnership.

Cooperation Amid Rivalry

- Historical examples like US-Soviet cooperation in outer space during the Cold War suggest that the US and China could eventually collaborate on global AI governance.
- Such cooperation may focus on preventing AI misuse and controlling its destabilizing effects, much like nuclear deterrence regimes.

India’s Strategic Role in Global AI Governance

- India must avoid past mistakes, such as being sidelined in the global nuclear governance framework, by clearly defining its AI strategy.
- Delhi has the opportunity to shape global AI governance rather than remain a passive participant.

Conclusion

- The AI race presents both challenges and opportunities for India. By leveraging partnerships, investing in innovation, and ensuring strategic clarity, India can play a pivotal role in the evolving AI landscape.

DeepSeek AI FAQs

Q1. Who is the founder of DeepSeek?

Ans. DeepSeek’s founder remains unnamed but is credited with innovating cost-efficient AI models using strategic chip stockpiling.

Q2. Who is the father of AI?

Ans. John McCarthy is known as the father of AI for coining the term “Artificial Intelligence” in 1956.

Q3. When was DeepSeek launched?

Ans. DeepSeek R1 was officially launched in December 2024, marking a breakthrough in cost-effective AI innovation.

Q4. Who is funding DeepSeek?

Ans. DeepSeek's funding sources remain undisclosed, but strategic cost-saving measures have enabled significant AI development at lower expenses.

Q5. What is unique about DeepSeek?

Ans. DeepSeek excels in reasoning, operates cost-efficiently, and competes with top AI models while avoiding politically sensitive topics.

Source: TH | IE | BBC

Source: <https://vajiramandravi.com/current-affairs/deepseek-the-ai-revolution-redefining-global-competition-and-indias-strategic-role/>

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