



EDITORIAL: INDIAN EXPRESS

GENERAL STUDIES 3: SCIENCE & TECHNOLOGY

DATE: 01.03.2025

TOPIC: ARTIFICIAL INTELLIGENCE

On AI, the big leap India needs

China's DeepSeek AI Breakthrough and Global AI Competition

1. Rapid Changes in AI Leadership

- AI dominance is shifting rapidly with new innovations and geopolitical competition.
- Countries and companies must adapt quickly or risk becoming obsolete.

2. DeepSeek's Game-Changing Entry

- In January 2024, China's DeepSeek introduced DeepSeek-R1, rivaling GPT-4.
- Unlike other proprietary models, DeepSeek is open-source, making AI more accessible.
- AI leadership now depends on speed, efficiency, and execution rather than just financial power.
- The AI Action Summit in Paris emphasized growth over excessive regulation.

3. Europe's AI Push

- France announced a €109 billion AI investment plan.
- European leaders, including President Macron and Finland's Timo Harakka, are easing AI regulations to stay competitive.

4. India's Push for Ethical AI

- India advocates for AI that benefits society, focusing on inclusive growth, economic expansion, and environmental sustainability.
- PM Narendra Modi stressed AI's role in labor market growth, social well-being, and environmental protection.
- AI will define global economic power, making national AI strategies crucial.

5. China's Strength in AI Engineering

- Former Google China President Kai-Fu Lee highlighted China's AI efficiency in engineering compared to the U.S.'s research focus.



- Facing U.S. semiconductor export restrictions, Chinese firms optimized AI architectures with innovations like:
 - Pure Reinforcement Learning
 - Mixture-of-Experts (MoE) models
 - Multi-Head Latent Attention
 - Advanced distillation techniques

6. China's Shift Towards AI Independence

- China is moving away from NVIDIA's CUDA to PTX for greater AI self-sufficiency.
- This reduces reliance on U.S. technology and strengthens China's AI dominance.

7. America's Defensive AI Strategy

- Former President Biden introduced two major AI-related actions:
 - **Interim Final Rule** to regulate GPU exports and prevent AI tech transfer to rivals.
 - **Executive Order** prioritizing clean energy for AI data centers.
- Trump repealed Biden's AI safety order, but these two policies remained due to bipartisan recognition of AI's strategic importance.
- Vice President Vance reaffirmed the U.S. focus on AI leadership in chips, software, and regulation.

8. AI as a Tool of Geopolitical Influence

- AI leadership is no longer just about technological advancements but also geopolitical power and supply chain control.
- Countries failing to keep pace risk dependency and long-term vulnerability.
- AI competition will intensify in the coming years with rapid innovations and shifting power dynamics.

9. India's Roadmap to AI Leadership

- India aims to become a developed nation by 2047 under the **Viksit Bharat vision**.
- To lead in AI, India must focus on:
 1. **Developing World-Class AI Talent** – A highly skilled workforce is key to innovation.



2. **Advancing AI R&D** – India must shift from being an AI consumer to an AI innovator.
3. **Ensuring Human-Centric AI** – AI should align with ethical and social values to strengthen India's position.

10. Global AI Leadership at a Crossroads

- The world is dividing into **disruptors (leaders) and disruptees (followers)** in AI.
- Nations must actively shape AI's future rather than being controlled by it.
- PM Modi emphasized the need for humanity to guide AI's direction.
- India must act boldly and decisively to become an AI superpower.

Conclusion

- AI dominance is at a turning point where strategy, innovation, and geopolitical maneuvering will define future leaders.
- Nations that invest in AI leadership will shape the global order, while laggards risk dependency and decline.
- India must act now to be a leader, not a follower, in the AI-driven future.

Source: <https://indianexpress.com/article/opinion/columns/on-ai-the-big-leap-india-needs-9862103/>