

India's Own AI Model

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India's Own AI Model: A Step Towards Digital Independence

Context

Artificial Intelligence (AI) is rapidly transforming industries globally, becoming a key driver for economic growth, national security, and technological leadership. However, **most AI models are currently controlled by a few major tech companies**, which raises concerns about **data privacy, high computing costs, and reliance on foreign technologies**.

To address these challenges, the **Indian government** has launched the **₹10,370 crore IndiaAI Mission** to develop its own AI models. The aim is to create solutions that cater specifically to India's **cultural, linguistic, and societal needs**, while also strengthening **India's digital sovereignty**. Union IT Minister **Ashwini Vaishnaw** has invited proposals from **startups, researchers, and entrepreneurs** to build these AI models using **Indian datasets**.

Key Features of India's AI Model

1. Powerful Computing with GPUs

- The AI model will be launched with **10,000 GPUs**, with plans to expand to **18,693 GPUs**.
- **GPUs (Graphics Processing Units)** are crucial for large-scale data processing in machine learning, video editing, and deep learning.

2. Affordable AI Computing

- The cost of AI computation will be **less than ₹100 per hour** after a **40% government subsidy**.
- This is **far more affordable** compared to global AI models, which charge **\$2.5-\$3 per hour**.

3. Multidimensional Applications

- The AI model will support **healthcare, education, agriculture, climate action, and governance**, leading to **large-scale transformation** across these sectors.

Why India Needs Its Own AI Model

1. Fostering Innovation & Research

- India aims to develop AI models that address the country's unique challenges, ensuring **technological independence** and **global competitiveness**.

2. Promoting Ethical AI

- The initiative will focus on creating **inclusive, fair, and bias-free** AI that reflects India's **diverse social and cultural context**.

3. Strengthening Digital Sovereignty

- The goal is for India to control the entire **AI supply chain**, from **data collection** to **hardware and software development**, reducing dependency on foreign AI solutions.

4. Ensuring Data Security

- India will focus on **AI bias reduction, explainable AI, and privacy strategies** to ensure **Indian data remains protected** from foreign systems.

Indian Efforts to Develop AI

- **IndiaAI Mission:** A national initiative to **build a robust AI ecosystem**.
- **IndiaAI Safety Institute:** Focused on **AI risk management** and **safe AI frameworks**.
- **IndiaAI Innovation Centre:** Responsible for developing **Large Multimodal Models (LMMs)** and **domain-specific foundational models**.

Government's Key Strategies & Developments

1. Building India's AI Model

- The government has been collaborating with **startups, researchers, and academic institutions** for the past **1.5 years** to develop a world-class AI model.
- This project is expected to be completed within **4 to 8 months**.

2. Hardware Support: 18,693 GPUs Approved

- **18,693 high-end GPUs** will be supplied by **10 companies** to support AI research.
- **Yotta (Hiranandani Group)** will supply the largest number, with **9,216 GPUs**.

3. Affordable Computing for AI Development

- The government will establish a **common compute facility** to offer **affordable GPU access** to startups and research institutions.
- Pricing:
 - **High-end GPUs:** ₹150 per hour
 - **Lower-end GPUs:** ₹115.85 per hour

- After the **40% subsidy**, the cost will be **around \$1 per hour**, significantly lower than global rates.

4. AI Applications in Key Sectors

- The government has selected **18 AI applications** for funding, with a focus on:
 - **Agriculture**: AI solutions to **boost productivity**.
 - **Learning Disabilities**: AI-powered tools for **education**.
 - **Climate Change**: AI models for **environmental conservation**.

Why India is Investing Heavily in AI

- **Reducing Dependence on Foreign AI**: Strengthening India's **indigenous AI ecosystem**.
- **Multilingual AI**: Developing AI that understands **India's diverse languages**.
- **Supporting Startups & Researchers**: Providing **affordable computing** to fuel innovation.
- **Competing Globally**: Keeping up with countries like the **US** and **China**, which are leading in AI advancements.

Challenges & Future Outlook

1. Potential Challenges

- **Infrastructure Development**: Ensuring **seamless GPU availability** for researchers.
- **Skilled Workforce**: **Training AI professionals** to create advanced models.
- **Regulatory Frameworks**: Developing strong **AI ethics, data privacy, and security** guidelines.

2. Future Impact

If successful, the **IndiaAI Mission** will:

- **Transform India** into a global **AI powerhouse**.
- **Reduce reliance** on foreign AI systems.
- **Drive technological progress** in key sectors like **healthcare, education, and agriculture**.

Conclusion

By making AI computing **affordable, ethical, and India-centric**, the IndiaAI Mission will empower **businesses, researchers, and society**. It will ensure that **India** remains a **key player** in AI innovation, **strengthening its technological independence** and contributing to global AI advancements.