Research Unit
Press Information Bureau
Government of India

India's AI Revolution

A Roadmap to Viksit Bharat

(Ministry of Electronics and Information Technology)

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Introduction

India is undergoing a remarkable transformation in Artificial Intelligence, driven by the visionary leadership of PM Modi. For the first time in India's history, the government is actively shaping an AI ecosystem where computing power, GPUs, and research opportunities are accessible at an affordable cost.

Unlike in the past, AI in India is no longer confined to a privileged few or dominated by global tech giants. Through forward-looking policies, the Modi government is empowering students, startups, and innovators with world-class AI infrastructure, fostering a truly level playing field. Initiatives such as the IndiaAI Mission and the establishment of Centres of Excellence for AI are strengthening the country's AI ecosystem, paving the way for innovation and self-reliance in this critical sector.

These efforts align with the vision of Viksit Bharat by 2047, where India aspires to become a global AI powerhouse, leveraging cutting-edge technology for economic growth, governance, and societal progress.

AI Compute and Semiconductor Infrastructure

India is rapidly building a strong AI computing and semiconductor infrastructure to support its growing digital economy. With the approval of the IndiaAI Mission in 2024, the government allocated ₹10,300 crore over five years to strengthen AI capabilities. A key focus of this mission is the development of a high-end common computing facility equipped with 18,693 Graphics Processing Units (GPUs), making it one of the most extensive AI compute infrastructures globally. This capacity is nearly nine times that of the open-source AI model DeepSeek and about two-thirds of what ChatGPT operates on.

Here are the key developments:

- **Scaling AI Compute Infrastructure:** The initial phase of the mission has already made 10,000 GPUs available, with the remaining units to be added soon. This will enable the creation of indigenous AI solutions tailored to Indian languages and contexts.

- **Opening Access to High-Performance Computing:** India has also pioneered the launch of an open GPU marketplace, making high-performance computing accessible to startups, researchers, and students. Unlike many countries where AI infrastructure is controlled by large corporations, this initiative ensures that small players have an opportunity to innovate.

- **Robust GPU Supply Chain:** The government has selected 10 companies to supply the GPUs, ensuring a robust and diversified supply chain.

- **Indigenous GPU Capabilities:** To further strengthen domestic capabilities, India aims to develop its own GPU within the next three to five years, reducing reliance on imported technology.

- **Affordable Compute Access:** A new common compute facility will soon be launched, allowing researchers and startups to access GPU power at a highly subsidised rate of ₹100 per hour, compared to the global cost of $2.5 to $3 per hour.

- **Strengthening Semiconductor Manufacturing:** In parallel, India is advancing semiconductor manufacturing, with five semiconductor plants under construction. These developments will not only support AI innovation but also reinforce India's position in the global electronics sector.

Advancing AI with Open Data and Centres of Excellence (CoE)

Recognising the importance of data in AI development, the Modi government has launched the IndiaAI Dataset Platform to provide seamless access to high-quality, non-personal datasets. This platform will house the largest collection of anonymised data, empowering Indian startups and researchers to develop advanced AI applications. By ensuring diverse and abundant datasets, this initiative will drive AI-driven solutions across key sectors, enhancing innovation and accuracy.

- **IndiaAI Dataset Platform for Open Data Access:** The platform will enable Indian startups and researchers to access a unified repository of high-quality, anonymised datasets, reducing barriers to AI innovation.

- **Boosting AI Model Accuracy with Diverse Data:** By providing large-scale, non-personal datasets, the initiative will help reduce biases and improve the reliability of AI applications across domains such as agriculture, weather forecasting, and traffic management.

- **Centres of Excellence:** The government has established three AI Centres of Excellence (CoE) in Healthcare, Agriculture, and Sustainable Cities in New Delhi. The Budget 2025 further announced a new CoE for AI in education with an outlay of ₹500 crore, making it the fourth such centre.

- **Skilling for AI-Driven Industries:** Plans are in place for five National Centres of Excellence for Skilling, which will equip youth with industry-relevant expertise. These centres will be set up in collaboration with global partners to support the 'Make for India, Make for the World' vision in manufacturing and AI innovation.

India's AI Models & Language Technologies

The government is facilitating the development of India's own foundational models, including Large Language Models (LLMs) and problem-specific AI solutions tailored to Indian needs. To foster AI research, multiple Centres of Excellence have also been set up.

- **India's Foundational Large Language Models:** IndiaAI has launched an initiative to develop indigenous foundational AI models, including LLMs and Small Language Models (SLMs), through a call for proposals.

- **Digital India BHASHINI:** An AI-led language translation platform designed to enable easy access to the internet and digital services in Indian languages, including voice-based access, and support content creation in Indian languages.

- **BharatGen**: The world's first government-funded multimodal LLM initiative, BharatGen was launched in 2024 in Delhi. It aims to enhance public service delivery and citizen engagement through foundational models in language, speech, and computer vision. BharatGen involves a consortium of AI researchers from premier academic institutions in India.

- **Sarvam-1 AI Model:** A large language model optimised for Indian languages, Sarvam-1 has 2 billion parameters and supports ten major Indian languages. It is designed for applications such as language translation, text summarisation, and content generation.

- **Chitralekha:** An open-source video transcreation platform developed by AI4Bhārat, Chitralekha enables users to generate and edit audio transcripts in various Indic languages.

- **Hanooman's Everest 1.0:** A multilingual AI system developed by SML, Everest 1.0 supports 35 Indian languages, with plans to expand to 90.

AI Integration with Digital Public Infrastructure

India's Digital Public Infrastructure (DPI) has redefined digital innovation by combining public funding with private sector-led innovation. Platforms like Aadhaar, UPI, and DigiLocker serve as the foundation, while private entities build application-specific solutions on top of them. This model is now being enhanced with AI, integrating intelligent solutions into financial and

governance platforms. The global appeal of India's DPI was evident at the G20 Summit, where several countries expressed interest in adopting similar frameworks. Japan's patent grant to India's UPI payment system further underscores its scalability.

For Mahakumbh 2025, AI-driven DPI solutions played a crucial role in managing the world's largest human gathering. AI-powered tools monitored real-time railway passenger movement to optimise crowd dispersal in Prayagraj. The Bhashini-powered Kumbh Sah'AI'yak Chatbot enabled voice-based lost-and-found services, real-time translation, and multilingual assistance. Its integration with Indian Railways and UP Police streamlined communication, ensuring swift issue resolution. By leveraging AI with DPI, Mahakumbh 2025 set a global benchmark for tech-enabled, inclusive, and efficient event management.

AI Talent & Workforce Development

India's workforce is at the heart of its digital revolution. The country is adding one Global Capability Center (GCC) every week, reinforcing its status as a preferred destination for global R&D and technological development. However, sustaining this growth will require continuous investment in education and skill development. The government is addressing this challenge by revamping university curricula to include AI, 5G, and semiconductor design, aligning with the National Education Policy (NEP) 2020. This ensures that graduates acquire job-ready skills, reducing the transition time between education and employment.

- **AI Talent Pipeline & AI Education:** Under the IndiaAI Future Skills initiative, AI education is being expanded across undergraduate, postgraduate, and Ph.D. programs. Fellowships are being provided to full-time Ph.D. scholars researching AI in the top 50 NIRF-ranked institutes. To enhance accessibility, Data and AI Labs are being established in Tier 2 and Tier 3 cities, with a model IndiaAI Data Lab already set up at NIELIT Delhi.

- **India Ranks 1st in Global AI Skill Penetration:** According to the Stanford AI Index 2024, India ranks first globally in AI skill penetration with a score of 2.8, ahead of the US (2.2) and Germany (1.9). AI talent concentration in India has grown by 263% since 2016, positioning the country as a major AI hub. India also leads in AI Skill Penetration for Women, with a score of 1.7, surpassing the US (1.2) and Israel (0.9).

- **AI Innovation:** India has emerged as the fastest-growing developer population globally and ranks second in public generative AI projects on GitHub. The country is home to 16% of the world's AI talent, showcasing its growing influence in AI innovation and adoption.

- **AI Talent Hubs:** The India Skills Report 2024 by Wheebox forecasts that India's AI industry will reach USD 28.8 billion by 2025, with a CAGR of 45%. The AI-skilled workforce has seen a 14-fold increase from 2016 to 2023, making India one of the top five fastest-growing AI talent hubs, alongside Singapore, Finland, Ireland, and Canada. The demand for AI professionals in India is projected to reach 1 million by 2026.

AI Adoption & Industry Growth

India's Generative AI (GenAI) ecosystem has seen remarkable growth, even amid a global downturn. The country's AI landscape is evolving from experimental use cases to scalable, production-ready solutions, reflecting its growing maturity.

- **Businesses Prioritising AI Investments:** According to BCG, 80% of Indian companies consider AI a core strategic priority, surpassing the global average of 75%. Additionally, 69% plan to increase their tech investments in 2025, with one-third allocating over USD 25 million to AI initiatives.

- **GenAI Startup Funding:** According to a November 2024 report by National Association of Software and Service Companies (NASSCOM), Indian GenAI startup funding surged over six times quarter-on-quarter, reaching USD 51 million in Q2FY2025, driven by B2B and agentic AI startups.

- **AI Transforming Workplaces:** The Randstad AI & Equity Report 2024 states that seven in 10 Indian employees used AI at work in 2024, up from five in 10 a year earlier, showcasing AI's rapid integration into workplaces.

- **AI Empowering Small & Medium Businesses (SMBs):** AI-driven technologies, such as autonomous agents, are helping SMBs scale efficiently, personalise customer experiences, and optimise operations. According to Salesforce, 78% of Indian SMBs using AI reported revenue growth, while 93% stated AI has contributed to increased revenues.

- **Rapid Expansion of India's AI Economy:** As per the BCG-NASSCOM Report 2024, India's AI market is projected to grow at a CAGR of 25-35%, reinforcing its potential for innovation and job creation. While AI automates routine tasks, it is simultaneously generating new opportunities in data science, machine learning, and AI-driven applications.

- **AI Startup Support Ecosystem:** India hosts 520+ tech incubators and accelerators, ranking third globally in active programs. 42% of these were established in the past five years, catering to the evolving needs of Indian startups. AI-focused accelerators like T-Hub MATH provide crucial mentorship in product development, business strategy, and scaling. In early 2024, MATH supported over 60 startups, with five actively discussing funding, highlighting India's growing AI startup landscape.

A Pragmatic AI Regulation Approach

India’s pragmatic AI regulation balances innovation and accountability, steering clear of overregulation that could stifle growth and unchecked market-driven governance that may create monopolies. Instead of relying solely on legislation, India is investing in AI-driven safeguards, funding top universities and IITs to develop solutions for deep fakes, privacy risks, and cybersecurity threats. This techno-legal approach ensures AI remains a force for inclusive growth, fostering an ecosystem where innovation thrives while ethical concerns are proactively addressed.

Conclusion

India's rapid advancements in artificial intelligence, underpinned by strategic government initiatives, have positioned the country as a global AI powerhouse. By expanding AI compute infrastructure, fostering indigenous AI models, enhancing digital public infrastructure, and investing in talent development, India is creating an inclusive and innovation-driven ecosystem. The emphasis on open data, affordable access to high-performance computing, and AI-driven solutions tailored to local needs ensures that the benefits of AI reach businesses, researchers, and citizens alike. As AI adoption accelerates across industries, India's proactive approach is not only strengthening its digital economy but also paving the way for self-reliance in critical technologies. With a clear vision for the future, India is set to become a leader in AI innovation, shaping the global AI landscape in the years to come.

Source: Ministry of Electronics and Information Technology

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