

THE FUTURE OF CYBERSECURITY WILL NOT BE DETERMINED SOLELY BY WHO BUILDS THE MOST POWERFUL ALGORITHMS, BUT BY WHO BUILDS THE MOST TRUSTED SYSTEMS. TRUST, TRANSPARENCY AND RESILIENCE ARE BECOMING STRATEGIC ASSETS



PHOTOS: AI IMAGE

BATTLE OF INTELLIGENT MACHINES

■ **Greeshma.Giri**
@timesofindia.com

Artificial Intelligence is now embedded across digital infrastructure. It powers fraud detection, automates network monitoring, optimises logistics and even writes code. As organisations depend more heavily on AI to run critical systems, cyber threat is evolving with equal speed. With both attackers and defenders using machine intelligence, the contest has become faster, more autonomous and far more adaptive.

STRUCTURAL SHIFT
For decades, cyber-attacks followed a recognisable pattern and security teams built layered defences designed to detect known signatures and contain breaches after they occurred. AI has disrupted this equilibrium. Neehar Pathare, MD, CEO and CIO, 63SATS Cybertech explains how

THE NEXT FRONTIER IS AGENTIC AI

Autonomous systems capable of executing trades, rebalancing portfolios or optimising liquidity with minimal human intervention. As finance becomes increasingly autonomous, explainability, data integrity and governance will determine whether innovation translates into enduring trust.

AI-enabled cyberattacks has fundamentally changed the threat landscape for enterprises by accelerating speed, amplifying scale, and increasing sophistication across the attack lifecycle.

"Unlike traditional attacks that relied on manual reconnaissance and sequential execution, AI-driven threats automate discovery, exploitation, and execution, allowing attackers to operate continuously and at scale. AI-powered tools can rapidly scan vast enterprise environments, map infrastructure, identify vulnerabilities, and launch thousands of highly targeted attacks with minimal human intervention. What makes these attacks more dangerous is their adaptability."

Pathare points out that AI-driven malware can modify its behaviour in real time to evade detection, learn from defensive responses, and persist within environments far longer than static malware. He further says, "At the same time, AI has introduced deep-fake-enabled fraud: enabling highly convincing imperson-

FINTECH AND DIGITAL TRUST

Finance has become one of the most consequential testing grounds for AI's promise and its risks. From credit assessment to fraud detection, artificial intelligence is restructuring how financial institutions evaluate risk, extend access and safeguard transactions. At the same time, cybersecurity challenges in finance have grown more complex, making digital trust central to financial innovation.

ation attacks such as CEO fraud and Business Email Compromise. For enterprises, this means security models must evolve from reactive controls to intelligence-driven, proactive adaptive defenses that can match the speed and autonomy of AI-powered threats."

HIDDEN RISKS

The shift is particularly significant for a country like India, which operates some of the world's most sophisticated digital platforms in banking, payments, and public infrastructure. AI is increasingly embedded within these systems—optimising everything from fraud detection to citizen service delivery. Yet, beneath this progress lie risks that may not be immediately visible. A compromised model or dataset does not merely affect one endpoint; it contaminates decision-making across platforms.

Recognising the scale of these emerging threats, institutions are also strengthening research-led responses. The IIT Madras cybersecurity centre, CySt, aims to develop a comprehensive, multi-faceted strategy to address emerging cybersecurity challenges driven by AI and the post-quantum era. Pathare notes that large enterprises, government organisations and PSUs are increasingly implementing unverified third-party LLM models, libraries, and datasets including older components, that may contain latent vulnerabilities or malicious backdoors, remaining undetected until exploited at scale. "Biggest cases are of data poisoning, where subtle manipulation of training data can distort outcomes in areas like fraud detection or credit scoring, with catastrophic consequences," he adds.

REACTIVE SECURITY TO CONTINUOUS INTELLIGENCE

In an AI-driven world, cybersecurity is shifting from episodic responses to continuous predictive and self-learning systems. Daisy Chittilapilly, president, Cisco India and South Asia, points out that as cyber threats adapt in real time, security needs to evolve



By integrating AI into secure-by-design architectures and establishing frameworks for responsible AI governance, India can play a major role in not only building resilient but also scalable cybersecurity solutions that address emerging threats worldwide, shaping the next generation of AI-driven security.

Daisy Chittilapilly
President, Cisco India and South Asia

just as quickly. "When it comes to cybersecurity, the advantage has always been with the attackers—they only have to be right once, while defenders must be right every time," she says. Chittilapilly adds that organisations need AI-driven threat detection, real-time threat intelligence and behavioural analytics to identify emerging risks. These must be integrated with automation of responses, proactive vulnerability management and continuous monitoring—working together to uncover anomalies and prevent attacks before they happen.

"Integrating AI with security information and event

management (SIEM) systems will allow security professionals to automatically analyse security alerts to identify genuine threats and filter out false positives. With a strategic and responsible approach to AI, we can shift the balance towards the defenders, creating a more secure digital future," she says.

As Daisy Chittilapilly notes, "India's digital economy is experiencing extraordinary growth, especially through investments in AI, security infrastructure and research and academic collaborations that promote digital trust. By integrating AI into secure-by-design architectures and establishing frameworks for responsible AI governance, India can play a major role in not only building resilient, but scalable cybersecurity solutions that address emerging threats worldwide, shaping the next generation of AI-driven security."

INDIA'S UNIQUE APPROACH TO HARNESS THE POWER OF AI FOR HER PEOPLE'S PROGRESS SHINES LIGHT ON THE EGALITARIAN APPROACH THE NATION HAS

■ **Dipal.Gala**
@timesofindia.com

In a world where artificial intelligence is still viewed as the preserve of tech giants and wealthy nations, India is forging a radically inclusive path. Prime Minister Narendra Modi's vision to democratise technology has won global applause, most recently at the 2025 Paris AI Action Summit. The country's strategy is simple yet ambitious: ensure AI reaches every industry, village, citizen.

Rajesh Dhuddu, partner and emerging tech leader at PwC, is optimistic: "Indigenous interfaces through means like Bhashini can make AI apps accessible to the entire population. If UPI can succeed without foreign technology and ONDC can thrive with zero dependencies on imported protocols, I don't have a doubt on prospect of AI flourishing with only Indian components. We need India-scale training and we have done this before during the fintech revolution where we witnessed corporates and NGOs work with the government with specialised efforts like 'Each one teach one' for

Bold leap: India bets big on 'AI for all'

usage of payment apps, there is no reason why this cannot be done with AI."

Ramesh Loganathan, dean of Research Outreach at IIIT Hyderabad—one of India's earliest AI research centres—stresses the urgency: "With Indian datasets and models, we can find solutions to our unique problems." He tells his students, "The same Indian mind is building the world's greatest AI platforms in other nations, why not here?" As per Stanford University's Global AI Vibrancy Tool, India ranks amongst the top three countries globally for AI talent concentration.

INDIGENOUS COMPUTE

At the core of the transformation lies the IndiaAI Mission, launched in March 2024 with ₹10,300 crore (US\$1.2 billion). This seven-pillar initiative is democratising computing power through public-private partnerships. A massive GPU cluster is now accessible via the AI Marketplace for AI-as-a-Service (AlaaS), slashing costs for startups and researchers who once depended on expensive foreign infrastructure and is made available to Indian entrepreneurs, innovators, and citizens.

BUILDING ON INDIA'S TECH FOUNDATION

L Venkata Subramaniam, quantum India leader at IBM, points to the country's ready-made digital backbone: "India's digitally connected population, with over 700 million smartphone users, is already a good base. For instance, it can enable population screening via AI, remote consultation to every citizen. With more than 10 billion UPI transactions per month, AI-based alternative credit scoring could unlock access to formal finance for millions of small businesses, expanding financial inclusion."

Agriculture, which employs more than 40 per cent of the workforce, is already seeing gains. Apps like the ICRISAT AI Sowing App, KissanAI, Fasal, DeHaat, and Plantix have lifted yields by 10–30 per cent with real-time advice on sowing, pests and soil health. Farmers in Maharashtra, Andhra Pradesh, Telangana and Karnataka identify at-risk crops and cut post-harvest losses that cost the economy billions each year. Adaptive learning platforms are also personalising education for one of the world's largest student populations.

The services sector, which contributes to 55 per cent of GDP, stands to gain even more. AI woven into Aadhaar and UPI is streamlining governance in areas where one did not imagine AI



AI IMAGE

Everyone's racing to train bigger models. Nobody's asking where they'll actually run them. That gap? That's India's opportunity and our obsession

Senthil Kumar R
CEO, Technavious

would help. In Surat, for instance, AI-driven surveillance has reduced crime by 27 per cent. Chatbots in Indian languages now handle grievances, ensuring citizens benefit from the technology.

DEMOCRATISING DATA AND TALENT

Indigenous data is at the heart of this revolution. The AI Kosh platform is curating high-quality, non-personal datasets. The National AI Marketplace uses blockchain to share them safely. Open-source initiatives—such as hosting Llama models on the AIRAWAT supercomputer—are giving everyone access via simple APIs. "Bhashini's support for 22 Indian languages removes language barriers and counters the biases of global models," avers Dhuddu.

OVERCOMING CHALLENGES

Yet hurdles remain. Only one per cent of India's vast data is currently analysed. India is countering them by its Centres of Research Excellence and International Centres of Transformational AI, each backed by up to ₹500 crore. The Digital Personal Data Protection Act, 2023, and advisories on deepfakes and cybersecurity have begun providing the ethical guardrails.

India is not merely catching up to this technology. It is redefining how AI should serve humanity—by design, for everyone.

Lenovo and its 'Smarter AI' advantage

Lenovo is benefiting from strategic bets it made several years ago. By controlling significant parts of the AI value chain through its diverse portfolio of businesses, Lenovo aims to lead the next phase of AI



Having gained cult status for its robust machines, global technology powerhouse Lenovo is positioning itself as a leader in Hybrid AI, offering integrated solutions across devices, infrastructure and cloud services.

According to Shailendra Katyal, VP and managing director, Lenovo India, the company's approach stems from a broader understanding of how computing is changing. Katyal explains that hybrid AI has evolved from hybrid cloud. "The idea of the hybrid cloud was largely based on whether data was processed in the cloud or on-premise," he says. "But now data is moving closer to the edge, sometimes literally into your hands, and processing doesn't always need to happen in a

distant server environment."

In the AI era, intelligence increasingly needs to exist where data is generated—driven by efficiency as well as privacy and security concerns. "Not all personal data is to be processed in the cloud. A lot of processing has to happen on the device itself."

This is where Lenovo sees its differentiation. Unlike companies focused on only one part of the ecosystem, Lenovo spans what Katyal calls a pocket-to-cloud footprint—from smartphones, PCs and tablets to enterprise server infrastructure. "Very few companies have this complete portfolio," he says, adding that this gives Lenovo an advantage as AI workloads move between devices, edge computing and cloud environments.

Lenovo has also become deeply involved in cloud infrastructure, supplying hardware to hyperscalers while maintaining strong consumer device businesses. Katyal describes this as partly fortunate timing. "A lot of this is serendipity," he reflects, noting that earlier acquisitions such as Motorola and IBM's server business now appear well-timed. "Those decisions from a decade ago are coming together for a much more connected, AI-led world."

With AI becoming more application-driven and agentic, Lenovo is integrating its AI capabilities across platforms. Previous AI tools have now been unified into a cross-device system called Qira, a personal AI super agent showcased at Lenovo Tech World '26 India. "Qira can remind you

of appointments, help manage your day, and eventually take proactive steps for you," he explains. "That agentic capability is where the future is headed."

SMARTER AI FOR ALL

With AI embedded across its product lines, Lenovo sees itself accelerating AI adoption in India. Katyal says this aligns with its vision of 'Smarter AI for All,' where AI is democratised. "The real magic happens when a vegetable vendor can use these technologies," he notes. By preloading Qira across devices, Lenovo aims to bring AI to nearly 15 million customers next year.

For enterprise environments, Lenovo offers AI Fast Start, a programme designed to deploy a functional AI pilot within 90 days. "If you have a broad

CIO Playbook 2026

Lenovo places strong emphasis on helping CIOs modernise legacy infrastructure and navigate the transition to enterprise AI. The company conducts an annual survey with IDC and publishes a CIO playbook to understand how technology leaders are thinking about change. The latest survey cycle covers over 3,000 CIOs globally, including around 900 plus CIOs in Asia Pacific and several hundred in India

thought in your mind and you want to take it to a proof-of-concept stage and sell it to your board, we could do that for you in 90 days," Katyal says. "We are constantly training ourselves as a company to understand the latest developments and take them to market in a meaningful way."

IN THE FAST LANE

Lenovo is also a Global Technology Partner of Formula 1®. "Lenovo provides the high-performance computing infrastructure that supports race operations, broadcasting and fan experiences. Downtime is not an option in a sport where precision and speed define success," says Katyal. The partnership extends beyond

SPOTLIGHT



Shailendra Katyal

trackside operations into broadcasting—which he describes as the backbone of Formula 1®. Lenovo technology powers much of this ecosystem, including servers and workstations deployed globally. Formula 1® is also adopting Lenovo's Neptune Liquid Cooling technology, which uses warm water to cool high-performance servers. The sixth-generation system helps deliver live broadcasts to over 820 million fans, and reduces energy use.

TAKING TO THE FIELD

Lenovo, the official technology partner for FIFA World Cup 2026™ and FIFA Women's World Cup 2027™, is bringing AI-driven innovation to football through its Football AI Pro system, delivering analytics and insights to coaches, players and analysts. Lenovo is also providing core technology infrastructure across FIFA operations. "A key highlight of the partnership is a new fan-facing innovation called 'referee body cameras'—giving an anticipated global audience of over six billion fans access to the referee's on-field point of view," says Katyal.

As AI shifts toward real-world applications, Lenovo's bet on hybrid AI suggests the next phase will be defined by how seamlessly intelligence moves across devices, infrastructure and experiences—connected through a single ecosystem.

AT A GLANCE

- Lenovo has been present in India for more than **20** years with deep local investments.
- Lenovo operates **2** R&D centres, **3** Global Capability Centres, and a Customer Fulfilment Services centre in India.
- Lenovo India is empowering **1.6** lakh students with STEM skilling.

INDIA'S QUANTUM —AI MOMENT

THE NEXT TECHNOLOGY LEAP FOR INDIA WILL BE THROUGH THE CONVERGENCE OF TWO POWERFUL FORCES: QUANTUM COMPUTING AND ARTIFICIAL INTELLIGENCE

■ **Pratik.Parthsarthy**
@timesofindia.com

In the early 1980s, physicist Richard Feynman posed a deceptively simple question: what if computers themselves followed the rules of quantum mechanics? Classical machines, he argued, would always struggle to simulate nature at its most fundamental level. That idea, once confined to chalkboards and academic debate, laid the foundation for quantum computing, built on principles such as superposition and entanglement.

Four decades later, that thought experiment has collided with another transformative force: artificial intelligence. Together, they are shaping what many now call Quantum AI, the next frontier in computing. And make no mistake, India is no longer watching this shift from the sidelines.

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Quantum AI, built on qubits instead of binary bits, introduces a fundamentally different model, enabling exponentially higher data processing with fewer resources. As AI scales, quantum architectures may soon become essential to sustain performance, security, and energy efficiency

Pradip Thaker, Country Head and VP (engineering), d-Matrix

A MISSION WITH AMBITION

India's clearest statement of intent came with the launch of the National Quantum Mission (NQM) in April 2023. With an outlay of Rs 6,003.65 crore spread across eight years, the mission aims to develop intermediate-scale quantum computers, secure quantum communication networks, advanced sensing systems, and the materials needed to make them viable.

"The mission is designed to seed, nurture and scale scientific and industrial R&D, and create a vibrant

and innovative ecosystem in quantum technologies. The targets are bold: quantum processors with 50 to 1,000 physical qubits, satellite-based quantum communications over 2,000 km, inter-city quantum key distribution, and atomic clocks for ultra-precise navigation and timing," says J B V Reddy, scientist-F and head of the Quantum Technology Cell at the Ministry of Science and Technology.

WHY AI CHANGES THE QUANTUM EQUATION

This is where AI shifts from being a parallel technology to a force multiplier. "The future belongs to hybrid CPU—GPU—QPU architectures, unlocking computational power that neither classical nor quantum systems can deliver on their own," says Sridhar CV, mission director of the AP State Quantum Mission.

He explains that the relationship is deeply symbiotic: quantum systems can accelerate AI through exponential speed-ups in optimisation and simulation, while AI helps quantum systems by improving qubit control, error correction, and circuit design. What once sounded theoretical is now edging closer to engineering reality.

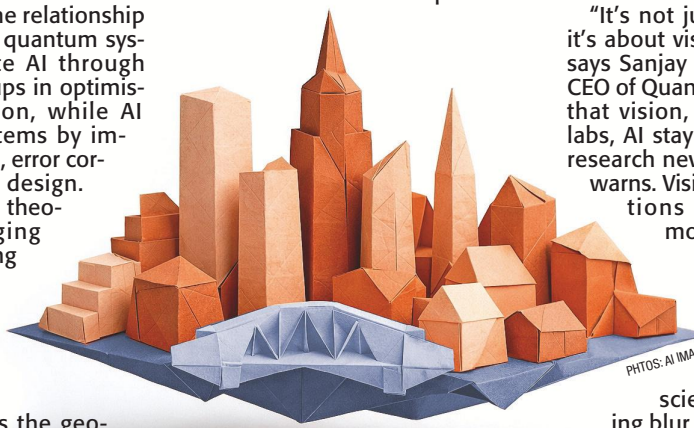
CITIES AS CATALYSTS, NOT JUST LOCATIONS

Equally significant is the geographic reshaping of India's quantum ambitions. Bengaluru continues to anchor foundational re-

search, while Hyderabad has emerged as a systems hub with the TCS—IBM quantum collaboration. Delhi, through C-DOT, is focusing on quantum communications.

Newer hubs are also stepping forward. Amaravati, through its Quantum Valley initiative, is positioning itself as a full-stack ecosystem, bringing together academia, global technology firms, and state-backed infrastructure. Mumbai, and Chennai are seeing rising interest from Global Capability Centres and startups focused on quantum software, cryptography, and sensing.

Over 55,000 students have enrolled in quantum courses through initiatives like IIT Madras—IBM programmes, and Andhra Pradesh plans to introduce quantum concepts into school curricula from 2026. The hope is to



PHOTOS: AI IMAGE

India is still early in this race. But as the lines between quantum science and AI engineering blur, the country has a rare chance to move beyond services-led IT, and define its place in the deep-tech world taking shape.

NUMBERS BEHIND INDIA'S QUANTUM PUSH

◆ India has released a national roadmap to become a **top three global quantum power** by 2035

◆ **India quantum computing market:** USD 113 million (2025) to USD 1.235 billion by 2035

◆ **10 globally competitive quantum startups** generating over \$100 million each by 2035

◆ **Four Thematic Hubs (T-Hubs)** have been established under NQM focusing on quantum computing, sensing, communication

◆ **India's 1st Quantum Valley** in Amaravati is expected to become a central hub linking 43 institutions across 17 states

create a pipeline that blends theory with industry readiness.

ARCHITECTURE HITS LIMITS

As AI moves from pilots to mass deployment, the real bottleneck is no longer algorithms but compute architecture. Pradip Thaker, country head and VP (engineering) at d-Matrix, cautions that generative inference-heavy AI workloads are pushing traditional architectures to their limits.

Data movement across traditional architectures drives up power consumption and latency, making Data Center deployments unsustainable on account of energy efficiency. While best and latest architectural innovations offer short-term relief, they remain stopgaps.

"Quantum AI, built on qubits instead of binary bits, introduces a fundamentally different model, enabling exponentially higher data processing with fewer resources. As AI scales, quantum architectures may soon become essential to sustain performance, security, and energy efficiency," Thaker suggests.

VISION BEYOND THE MACHINES

At its core, India's Quantum—AI journey is as much about vision as it is about technology.

"It's not just about technology; it's about vision to make it work," says Sanjay Chittore, founder and CEO of Quantum AI Global. Without that vision, quantum remains in labs, AI stays in data centres, and research never reaches society, he warns. Vision is what turns equations into infrastructure, models into markets, and algorithms into advantage.

India is still early in this race. But as the lines between quantum science and AI engineering blur, the country has a rare chance to move beyond services-led IT, and define its place in the deep-tech world taking shape.

MIND YOUR LANGUAGE, AI

FOR AI TO BE IMPACTFUL IN INDIA, IT MUST ALIGN WITH THE COUNTRY'S LINGUISTIC, CULTURAL, AND ECONOMIC REALITIES, REACHING BEYOND ITS CURRENT USER BASE OF URBAN ENGLISH-SPEAKERS

■ **Sarah.John**
@timesofindia.com

As artificial intelligence systems expand at a rapid pace, a critical question arises for India: will AI deepen existing inequalities, or help bridge them? There is growing consensus that access to AI cannot remain confined to English-speaking, urban users and that India must move from consuming global AI to building responsible, inclusive systems of its own. Language lies at the centre of that ambition.

"The Government of India is taking significant steps to accelerate AI adoption," says Dr Arvin Subramanian, an AI expert and consultant. He points to IndiaAI, an initiative of the Ministry of Electronics and Information Technology, which provides subsidised access to GPUs (Graphic Processing Units) to startups and researchers to build foundational models domestically, along with high-quality datasets. As large language models are primarily trained on English text, they often struggle with queries in regional languages.

WHEN AI LEARNS A NEW LANGUAGE THE WHOLE WORLD BENEFITS

While the language divide remains a challenge, it is also one of AI's greatest opportunities. Large language models (LLMs) now make it possible to build high-quality translation systems, and even train new models, with far less data than before. Because LLMs learn shared semantic representations, knowledge gained in one language can benefit another, a phenomenon known as cross-lingual transfer. In this sense, bridging the language gap is not just a technical task, but a chance to ensure AI truly serves all of humanity, in every language.

- An extract from the *AI Diffusion Report* by the *Microsoft AI Economy Institute*, November 2025

WIDENING THE BASE

To make AI and internet-based information accessible to non-English speakers, the government of India launched BHASHINI, a multi-lingual translation platform, building Indian-language datasets and enabling citizens to contribute regional-language data of their own, adds Dr Subramanian. Such efforts could make AI tools more accurate and accessible in Hindi, Marathi, Tamil, Telugu and other regional languages, bringing



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Vijay Rajagopal, Country Head for BFSI, Fintech and GTM, AWS

advanced technology within reach of native speakers who have hitherto been excluded.

Gayatri Nair Lobo is CEO of Educate Girls, an NGO focused on ensuring that girls are enrolled in school and continue learning, whether through formal classrooms or via open schooling systems. "In the regions we work in, English really isn't the language seen in business, government and other services. It used to be a discriminator when it came to tech but not any more. However, only about 30 percent of our learners have access to their own device. And it's not just an issue of getting phones to donate to them. Only male members of the families are allowed to have phones."

Lobo shares that although AI is not part of the formal curriculum, learners in the Pragati or 'second chance' programme are introduced to essential digital tools such as online maps, video sharing platforms, and AI tools.

THE LINGUISTIC COST

Language inclusion also has economic implications. Vijay Rajagopal, country head for BFSI, fintech and GTM at AWS, explains, "Across India, one of the persistent challenges with underbanked or new-to-bank customers is that their data is sparse, unstructured and fragmented." In such contexts, AI can interpret alternate and varied data points to generate a proxy credit score that serves as a reasonably strong indicator of repayment capacity. "This has meaningful implications on the underwriting side," Rajagopal says.

The opportunity, however, extends beyond credit risk assessment. As debate intensifies around native-language access in technology, Rajagopal points to the role AI can play in customer engagement. "AI can interact with customers in their native languages," he notes. "A GenAI-powered voice bot can deliver hyper-personalised interactions at scale, understand customer requirements real time and generate solutions on the fly."

The future of AI in India will depend not only on adoption, but on participation. As the November 2025 AI Diffusion Report says, "AI remains inaccessible when people cannot engage with it in their own language."

AI-ding job creation

INDIA'S AI STORY IS ONE OF SKILLING, SCALE AND A WORKFORCE PREPARING FOR THE FUTURE

With over six million professionals engaged across the tech and AI ecosystem, the country's digital revolution is creating demand for skilled talent across sectors such as IT services, healthcare, finance, and governance.

This expanding workforce is strengthened by India's demographic advantage. Home to one of the youngest talent pools in the world, more than 65 per cent of India's population is under 35, providing a vast reservoir of adaptable learners ready to engage with emerging technologies.

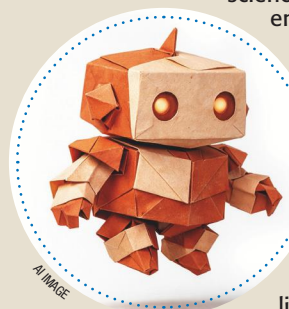
Combined with a strong foundation in science, technology, engineering, and mathematics, this position enables India to leverage its human capital for the digital age.

A global study highlights that about 81 per cent of employers are prioritising upskilling strategies to ensure their workforce can effectively work with AI and other digital tools.

The government has launched multiple programmes to expand AI skills. The IndiaAI Mission, backed by over Rs 10,300 crore, aims to democratise AI education and build talent pipelines, including initiatives such as IndiaAI FutureSkills that support learning and research from undergraduate to doctoral levels.

According to global assessments, India ranks among global leaders in AI skill penetration and talent concentration, with its base expected to more than double by 2027, growing at around 15 per cent annually.

Government estimates suggest that accelerated AI adoption could add hundreds of billions of dollars to India's GDP by 2035.



AI IMAGE

BHARAT'S AI RX: SMARTER CARE FOR EVERYONE

AI ADOPTION IN THE INDIAN HEALTHCARE HAS RESULTED IN BRILLIANT OUTCOMES. FROM ACCURATE AND FASTER DIAGNOSIS, EARLY DETECTION OF LIFE-THREATENING DISEASES, TO BRINGING NEW LIFE, AI IS AT THE FOREFRONT OF INCREDIBLE SUCCESS STORIES

■ **Ranita.Ray**
@timesofindia.com

For decades, India has been a preferred destination for global medical tourism. Now, it isn't merely for its traditional knowledge or affordable treatments, but also for its fast adoption of modern technologies like artificial intelligence (AI). According to The Clinician of the Future 2025 report, Indian clinicians using AI surged from 12 per cent to 41 per cent in just one year (2024 to 2025-26), beating the US (36 per cent) and the UK (34 per cent). Meanwhile, the Ayushman Bharat Digital Mission (ABDM) has linked over 67 crore health records till Aug 2025, enabling AI to work on longitudinal data. From diagnosis and detection to prediction and new life creation, Indian healthcare is leading with AI.

BREAKTHROUGH IN CRITICAL ILLNESS CARE

AI in healthcare is changing how India detects and treats life-threatening illnesses like cancer and heart disease. "Radiology diagnostic turnaround time has dropped by 46 per cent as clinicians use smart AI technologies to analyse EHRs, MRIs, CT scans, and X-rays in minutes. AI-powered tele-cardiology improves ICU monitoring, enabling doctors to detect atrial fibrillation before it worsens. Patients get faster diagnosis and improved recovery odds," articulates Surjeet Thakur, CEO and founder of TrioTree.

India's health-AI market is projected to reach nearly \$8 billion by 2030. "It is supported by initiatives like the IndiaAI Mission's

CATCH Grant Program, backed by the National Cancer Grid to support AI Innovations in cancer screening, diagnosis, and treatment. The increased collaboration between AI and medical expertise is enhancing non-communicable illness detection and treatment," Thakur informs.

DIAGNOSING WITH PRECISION

Santhanakrishnan Ramabadrann, head of Analytics Consulting at Tiger Analytics, notes that, AI is transforming India's healthcare foundation into a global innovation hub. "AI's impact is strongest in diagnostics and imaging. From AI-powered retinopathy screening reaching rural clinics to computer vision models detecting TB and cancer, it is resulting in a high degree of accuracy. In drug discovery, AI accelerates molecular design, predicts promising compounds, and optimises clinical trials."

Anumeha Srivastava, chief business officer at Qure.ai, focuses on a constant pain point. "Unequal

access to specialists within the population has been a pressing challenge. By embedding AI into everyday workflows such as chest X-rays and CT scans, one can flag critical findings early. This has shown meaningful impact in diseases like tuberculosis, lung cancer and stroke, where delays in diagnosis lead to poorer outcomes."

The next phase of AI in diagnostics will focus on utilising AI to find the right patient and the right time. "Using indicators like X-rays to identify high-risk nodules for early lung cancer diagnosis is already happening. AI will be used to prioritise cases, aid in triage, and detect early warning signs by integrating imaging data with clinical context," predicts Srivastava.

Ramabadrann highlights the commercial side. With 68 per cent of healthcare providers and 82 per cent of pharma organisa-



AI IMAGE

BEYOND PHYSICAL HEALTH

AI intervention isn't limited to physical health. Emotional well-being has also adopted it. In 2024, the government launched Tele-MANAS in India, and it uses AI-powered tools, including the "Asmi" chatbot, to offer 24/7, multilingual mental health support. But does it mean exclusion of human connection? Vaamaa Baldota, founder and CEO, iDare, replies to it, "We believe and suggest AI not as a replacement for human care. Technology helps us identify patterns, understand emerging needs, improve response systems, and make our support timelier and more accessible. We become proactive instead of reactive."

Baldota further explains, "Every conversation, critical support or decision that impacts someone's life is led by trained human professionals. AI helps us scale reach and sharpen systems, while our people hold the space."

tions using AI, the market was projected to reach USD 1.6 billion by 2025.

CREATING NEW LIFE

AI has been instrumental not just in curing existing life but also in bringing new life to this world. At a crucial juncture, when India's Total Fertility Rate (TFR) is below replacement level at approximately 1.9, technology offers hope. Rishina Bansal, co-founder and Clinical Embryologist at Archish Fertility, explains, "AI-driven data analysis is used to assess embryo quality, predict implantation windows and optimise stimulation protocols based on individual hormonal patterns."

How does it help? Bansal elucidates, "This reduces guesswork and improves success rates. AI also supports lab-quality control, outcome tracking, and protocol refinement. It enables informed clinical decisions and results in an evidence-led, transparent treatment journey, tailored to each couple's fertility profile."

BETTER CARE AND CURE

India beats the west: Indian clinicians' AI adoption surged from 12 per cent to 41 per cent from 2024 to 2025-26, beating the US (36 per cent) and the UK (34 per cent).

Faster diagnosis: AI technology allows doctors to evaluate EHRs, MRIs, CT scans, and X-rays in minutes, reducing radiology's diagnostic turnaround time by 46%.

Mental health support: Indian government initiative Tele-MANAS uses AI-powered tools, "Asmi" chatbot, to offer 24/7, multilingual mental health support.

ARTIFICIAL INTELLIGENCE IS RESHAPING THE WAY WE WORK AND HOW ORGANISATIONS OPERATE, CREATING NEW OPPORTUNITIES WHILE MAKING SOME ROLES REDUNDANT. IN THIS EVOLVING LANDSCAPE, CONTINUOUS LEARNING AND UPSKILLING ARE ESSENTIAL TO THRIVE

■ PriyaC.Nair
@timesofindia.com

AI is making its presence felt across sectors, bringing sweeping changes in how we live and work. From chatbots and navigation apps to diagnostic tools and fraud detection systems, AI is transforming both everyday experiences and businesses. Organisations are increasingly using AI tools for customer support, troubleshooting, automating repetitive tasks such as data entry, compliance checks, and report generation, freeing up human talent for more strategic and value-driven work.

Sharing details on the impact of AI at workplaces, Raghav Gupta, founder and CEO, FutureSense, says, "AI compresses work cycles across functions. Marketing teams can plan and test campaigns in days instead of weeks, operations teams can detect risks in real time, and support teams are resolving queries faster with AI copilots. AI is shifting organisations from intuition-led decisions to evidence-led decisions. Leaders can now simulate scenarios, test assumptions, and take faster, data-backed calls with higher confidence." In the HR domain, "AI is enabling HR teams to work with greater speed, accuracy, and insight, while keeping all final decisions firmly human led. In recruitment, it streamlines structured tasks such as screening, creating role descriptions, and matching profiles, allowing teams to focus on meaningful conversations and cultural fit. Across engagement and performance, AI-supported analysis helps in identifying emerging patterns and potential risks early, so we can intervene proactively," adds Megha Goel, CHRO, Godrej Properties.

In the logistics sector, "It allows teams to shift focus from manual processes to strategic priorities like customer service and innovation. For example, AI-powered route optimisation analyses real-time data to cut delivery timelines significantly, while AI-driven inventory tools enhance warehouse productivity by predicting demand and streamlining picking processes," explains Zaiba Sarang, co-founder, iThink Logistics.

THE TALENT SHIFT

AI is also transforming the job market, creating new roles and job opportunities. "About 16 per cent of the world's AI talent originates from India, underscoring the country's leadership in AI skills penetration. As organisations increasingly invest in AI, many are allocating substantial resources, up to \$1 billion over the next three years, toward upskilling their workforce in AI and related technologies. Indian tech companies are re-defining their service offerings to include AI-driven analytics and intelligent automation. This shift indicates that rather than merely displacing jobs, AI is facilitating the creation of new roles that require advanced skills and collaboration with technology. As generative AI continues to transform business operations and customer experiences, the potential for job creation in India remains strong," explains Sunil Chemmankotil, country manager, Adecco India. Though AI disrupts roles that are repetitive or process-heavy, as Gupta adds, "What is changing is the nature of work. Routine execution is getting automated, while demand is rising for people who can define problems, interpret outputs, and own outcomes. The shift is from task-based roles to judgment-based roles."

NEW SKILLS FOR THE AI ERA

With the changing workplace scenario, continuous learning, reskilling and upskilling are no longer optional. As experts say, professionals who do not adapt will fall behind. "The focus should be on three things: basic AI literacy, stronger problem-solving and decision-making, and hands-on use of AI tools in daily work. Continuous, practical learning is now the only way to stay relevant," shares Gupta. Going forward, the workplace will be increasingly hybrid, where humans and intelligent technologies work side by side. In such a situation, "Devel-



AI-Powered Workplace Reset

oping irreplaceable human skills such as critical thinking, creative problem-solving, emotional intelligence, and collaboration is crucial, as these areas complement AI's strengths and drive success in roles involving AI oversight, ethical decision-making, and customer-focused innovation. Hands-on experimentation with everyday AI tools, like using predictive analytics apps for workflow optimisation or gen-

erative AI for report drafting, builds practical confidence and reveals immediate value in current jobs. Additionally, actively networking in industry communities, along with seeking mentorship from AI adopters, uncovers emerging opportunities and provides real-world guidance. By taking these proactive steps, individuals cannot just survive but thrive in AI-augmented workplaces," suggests Sarang. According to Abhineet Sharma, founder and director, RoboSpecies Technologies Pvt Ltd, "Future workplaces will require people who can work alongside AI, validate its outputs, and apply human judgment where machines fall short. This makes problem-solving, interdisciplinary thinking, and continuous learning more valuable than memorisation or static technical skills."



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India's AI market is expected to exceed \$17 billion by 2027, with a projected **CAGR of 25-35%**. Growth is fueled by increased enterprise adoption, substantial investments in data and generative AI, and a large, skilled workforce. **With over 420,000 AI professionals, expected to increase to 1.25 million by 2027**, India is establishing itself as a leading global hub for AI.

Nasscom-BCG Report



AI is now a key agenda in boardrooms, reshaping work, market strategies, and customer interactions. AI has progressed from simple chatbots to complex, context-aware agents. Autonomous AI agents can perform end-to-end tasks like human employees. Indian companies are experimenting with AI, focusing on task automation and goal-oriented programmes. Startups in India are developing AI-based products and services. AI security is crucial and ensuring AI agents produce desired outputs without errors is critical for businesses.

Manish Mimani

Founder and CEO, Protectt.ai

Ethics as infrastructure, not just an ideology

ETHICS IS NO LONGER ABOUT WHETHER TO USE AI OR NOT BUT ABOUT HOW IT BEHAVES ONCE INTEGRATED

■ Nayanthara.Rajeev
@timesofindia.com

Artificial intelligence today is not merely a visible technological tool we consciously use but a layer deeply embedded in everyday life – so naturalised and normalised that it often escapes notice. When AI was visible, the question was adoption. Now that it is already accepted and embedded, the question is agency.

FROM CONTROL TO CHOICE

Ethics in AI cannot be perceived as a philosophical construct alone but as a solid infrastructure that enables the advancement of AI's potential. For the users, it means cognitive freedom and the ability to choose, and this freedom is inseparable from privacy.

"AI may affect the cognitive capacity of digital natives more than social media, raising deeper concerns about long-term human judgment," observes Survir Kiran, assistant professor, Christ University. The question is whether human intentionality – the right to think, decide, and dissent is retained in the AI ecosystem.

WHY INDIA NEEDS ITS OWN FRAMEWORK?

India's linguistic diversity, social stratification, and uneven digital access demand more than a wholesale adoption of global AI ethics frameworks. According to policy analyst Amal Chandra, while international principles offer valuable baselines, India requires a contextual ethical framework that addresses multilingual bias, exclusion risks and data asymmetries. "Ethical AI in India must therefore be grounded in constitutional values such as equity, dignity, and inclusion, while remaining interoperable with global norms rather than detached from them," he adds.

ETHICS-BY-DESIGN, NOT POST-HOC COMPLIANCE

India's AI oversight depends largely on advisory principles and sectoral rules rather than enforceable mandates. Experts opine that a purely regulatory or corrective approach is unrealistic at the scale of billions of users, as harms can propagate faster than legal or institutional responses.

"Ethics must be embedded upstream—at the design, data, and deployment stages—through human-centred design,

representative datasets, impact assessments, and internal governance mechanisms within AI-building institutions. Regulation should thus function as a backstop, while ethical responsibility is operationalised through ethics-by-design rather than post-hoc compliance," adds Chandra.

BUILDING WITH ETHICS, NOT AROUND IT

Securing the data, models and AI-driven decisions that power these systems helps prevent misuse, manipulation, and unintended outcomes. "By embedding security, privacy, and resilience into the AI lifecycle from the outset, organisations can ensure that AI behaves as intended and earns confidence from users and stakeholders," notes Vivek Srivastava, country manager – India and SAARC, Fortinet.

SECURITY BY DESIGN AS AN ETHICAL IMPERATIVE

In practice, many of AI's ethical questions, around agency, accountability, and trust, surface most sharply in cybersecurity and data protection systems. The

challenge is no longer just technical excellence; it is the ethical calibration of these systems. "The ecosystem demands an ethical 'security by design' approach built on three pillars – privacy, proportionality and accountability," observes Neehar Pathare, MD, CEO and CIO, 63SATs Cybertech.

"First, data minimisation and anonymisation enable the detection of attack patterns without compromising privacy. Second, proportionality ensures that security responses do not outweigh the harm prevented. Finally, accountability requires moving away from black-box models toward explainable AI (XAI), where autonomous decisions leave a clear audit trail for human oversight," he explains.

EMBEDDING ETHICS IN PRACTICE

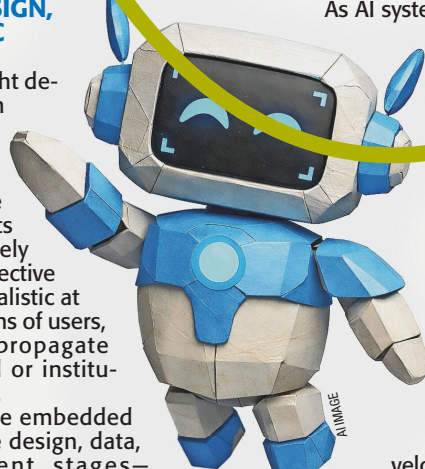
As AI systems become integrated in routine governance, welfare delivery, and economic decision-making, experts warn that neglecting foundational questions of design, accountability, and human agency may be more consequential than episodic misuse of AI. Embedding ethical safeguards as core design guardrails is therefore essential. When ethics is treated not as a constraint but as an enabler of trust and scale, AI can advance development objectives without deepening inequality.



The ecosystem demands an ethical 'security by design' approach built on three pillars – privacy, proportionality and accountability.

Neehar Pathare

MD, CEO & CIO, 63SATs Cybertech



SRINI RAJAM, Chairman and CEO, Ittiam Systems

In intelligent video and audio technologies, Ittiam Systems needs no introduction. This private technology company based in Bengaluru was founded in 2001 by the visionary tech leader Srini Rajam. It is one of the first in India to focus specifically on the licensing of Intellectual Property (IP) rather than service-based outsourcing. Over the years, it has shifted toward Real Intelligence, integrating Generative AI and machine learning into media workflows. Srini Rajam, chairman and CEO, discusses how his company is staying relevant by innovating and embracing artificial intelligence.

● **Maintaining relevance for 25 years in a shrinking technology cycle is rare. How do you encourage continual reinvention in your engineering teams to help Ittiam not just react but anticipate shifts like Generative AI?**

► Ittiam's culture of continuous reinvention focuses on two key practices. Firstly, it is research-driven technology development. We invest nearly 30 per cent of our development costs in R&D. This enables us to anticipate future technological needs. We are a member of the Motion Picture Experts Group (MPEG) and the International Organisation for Standardisation (ISO) in contributing to emerging video codec standards such as H.265 and H.266. We are also a promoter-member of the Alliance for Open Media (AOM), where we contribute to open-source video codec standards such as AV1 and AV2.

Secondly, it is customer application-driven product development. For this,

we work with industry-defining customers such as Google and Meta and their market-leading applications. One example is the Android Device Lab. We provide deep and precise analytics of how their applications' user experience and quality across billions of users dispersed by mobile devices and chipsets.

● **How are you currently leveraging AI as a core USP to maintain a leadership position against global semiconductor giants and specialised silicon startups?**

► Ittiam has been investing in artificial intelligence (AI) in media for more than a decade now. We have placed a lot of emphasis on moving beyond 'content processing' to 'content understanding'. A major product created through content understanding is THINKode, a Content Adaptive Encoding (CAE) technology. It significantly reduces the bandwidth and storage required to encode video content. When the encoding software has the intelligence to understand the difference between rapid action movies versus low action speech, it can make the best decision on the number of bits required to code the content and other encoding decisions.

● **The Equitable AI Lab is a unique collaboration with IISc. Beyond research, what is the specific mission of this lab in addressing AI bias or accessibility?**

► In the first phase, we enabled media consumption anytime, anywhere, i.e., watching a movie not just on a fixed screen at a fixed time. But watch it on the

go and on any screen, from mobile to car to aircraft. Extending the same philosophy, we are now focused on bringing intelligence everywhere.

We will invest deeply in the optimisation, inference, and model application phase of intelligent systems. The quality of AI decisions is directly linked to the quality, fairness and equity of models. Hence, our research collaboration with IISc is highly relevant to our and the industry's future.

● **You have been a vocal advocate for 'Product India.' How has Ittiam most effectively shifted global perceptions of India, moving it from a 'back-office hub' to a global powerhouse of deep-tech innovation?**

► As India's first Intellectual Property Design and Licensing Company, having grown over 25 years into a globally recognised and respected player, we have distinctly changed the narrative of India as the originator and contributor to future technology trends. In this transformation, Ittiam has been instrumental in enabling the world's first smartphones with High-Definition Video Player and recording capabilities in the early 2010's. Another such pivotal contribution is the adoption of Ittiam's key video and audio processing components by the world's largest-scale Android platform with a multi-billion-user base.

Ittiam's products in GenAI Video will include affordable, personalised, and realistic video avatar capabilities to enhance user convenience, human-machine interaction, and the customer service experience.

SPOTLIGHT

Committed to I Think Therefore I Am

India's first Intellectual Property Design and Licensing Company, Ittiam, has transformed the perception of India as a pioneer in technological trends during the past 25 years

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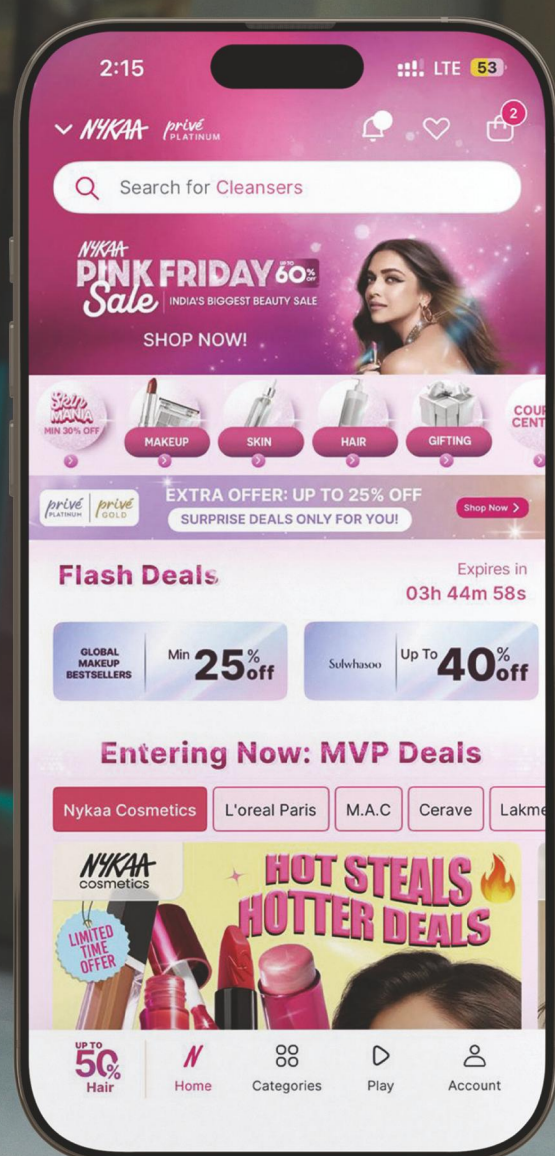


Pull the future forward

with Generative AI

NYKAA

Rajesh Uppalapati
Chief Technology Officer,
Nykaa



Watch the
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