

INDAIA: How To Lead The Coming Tech Revolution

Startups, techies, industry acceptance, government backing: the elements are all
There, India, which just hosted a global AI meet, will simply have to build on them

- Amitabh Kant

Deep in the densely forested heartlands of India at the border of Maharashtra and Telangana, an innovative Indian startup is weaving a tale of transformation. UdyogYantra, a New Delhi based venture is quietly revolutionizing nutrition in Etapalli, a remote block in aspirational district Gadchiroli. A pilot project started in one school of the block has an artificial intelligence enabled machine built by the startup take photographs of young children with their plate of mid-day meals. Without any human intervention, the machine assesses the quality of the food in line with the specific nutritional requirements of the child. This has helped the district administration identify not only the children who are malnourished but also which critical nutrients are lacking from the meals being served and issues related to the quantity as well as quality of mid-day meals.

India has pioneered the democratization of technology and this is just one stellar example of how the benefits of cutting edge artificial intelligence are reaching the grassroots. Through the AI-powered Bhashini application, the Government of India is helping citizens access digital services in over 121 Indian languages. The PM KISAN scheme now has an AI chat-bot which will be available in 22 languages, to assist and empower farmers across the country giving a massive fillip to the agriculture sector. While the world is gripped by anxiety around AI disrupting the job market as it stands, India with its unprecedented success in taking technology to the last mile in the last decade can turn this impending challenge into an opportunity.

AI is a powerful wave that will reshape India's economic landscape. We have the richest demographic dividend and the highest penetration of AI talent in the world. The entire Indian workforce must be equipped with the right skills to not only ride and rise with this wave but to also harness its full potential for growth and innovation. The Indian economy is now resolutely navigating the burgeoning Artificial Intelligence ecosystem. AI is predicted to contribute a substantial \$967 billion to India's economy by 2035. In the near term, it is poised to inject approximately \$450-500 billion into the nation's GDP by 2025, representing a significant 10% of India's goal of achieving a \$5 trillion GDP.

The Industrial Revolution automated several mundane processes and spurred invention and discoveries which transformed lives globally. Similarly, tools enabled by AI will take over routine tasks, opening up opportunities for more meaningful engagement and creative output for the workforce. The 'Future of Jobs' report by the World Economic Forum presents a riveting outlook for the global job market. Nearly 75% of companies surveyed for the report are poised to adopt artificial intelligence anticipating a significant churn in the job market. Half of these organizations expect this AI integration to drive substantial job growth, heralding a new era of employment opportunities.

In a recent survey covering over a thousand Indian employers, an astounding 85% of organizations predict that AI will generate new job opportunities in the next 1-5 years, while also enhancing quality of jobs. Additionally, 77% of employers believe AI will boost job security and career development. This sentiment is shared by the workforce, with job seekers expecting AI to increase work

efficiency, aid in skill development, enable complex problem solving, and prioritize employment based on skills over experience.

As the corporate world takes cognizance of the immense possibilities of AI in refining processes, elevating customer experiences, and boosting innovation, the need for AI experts will soar to new heights. Roles such as data scientists, machine learning engineers, AI researchers, and algorithm developers will become the jewels of the job market. The emergence of 'prompt engineers', a term that was virtually nonexistent a few years ago is a great example of such new roles. These experts, adept in harnessing the potential of Large Language Models, have rapidly ascended to become highly sought-after professionals in today's job market.

Upskilling and reskilling should be the dominating trend for our workforce. A study by ServiceNow and Pearson forecasts that by 2027, a remarkable 16.2 million workers in India will be in the throes of reskilling and upskilling to keep pace with the rapid advancements of this technological revolution. The study highlights that this technological wave is anticipated to generate over 4.7 million new technology jobs. It is crucial to recognize that the transformative influence of AI extends far beyond the technology sector, equalizing opportunities across various fields like healthcare, education, manufacturing, retail, and banking.

We are navigating an era that demands an interdisciplinary mindset. As an economy, we must foster a culture steeped in curiosity and creativity. Flexibility and resilience will be essential to remain a leader in the relentless global race. In this evolving landscape, the emphasis will shift from merely performing jobs to

really excelling in them. Educational and skilling institutions must demonstrate agility and innovation, updating their curricula to align with the evolving market demands.

By implementing initiatives that dynamically enhance AI-based educational programs and vocational training, we can catapult AI-focused entrepreneurship. The ground is fertile. From just 18 AI-centric startups in 2021, there are 60 plus generative AI startups in India in 2023 with robust investments to the tune of millions of dollars flowing in. Many of these startups are leveraging AI to solve complex societal problems. Dehaat is providing agricultural finance solutions to farmers. Artpark is a not-for-profit driving technology milestones in AI and Robotics for social good. Atom360 is working to make healthcare affordable and accessible to all.

AI stands as the modern-day alchemist, transforming the very fabric of the job market. By converting skills into invaluable assets and reshaping traditional roles into groundbreaking careers, AI can usher in a superior quality of life the likes of which the world has not had an opportunity to imagine.

In the 18th century, India missed a major opportunity to lead the era of innovation following the first Industrial Revolution. However, this time we are better prepared to be at the helm of the approaching renaissance. India is fully capacitated to become the world's premier incubator for exceptionally skilled AI workers, where the fusion of creative thinking, problem-solving, and inventive mindsets can be channeled into creating tangible goods and services to enrich humanity.

- ***The author is G20 Sherpa, India. Views Expressed are personal.***