The big AI shake-up in Bengaluru

While Bengaluru is home to more than a lakh artificial intelligence professionals, AI has also brought with it fears of job loss. The launch of a survey recently by Karnataka's Department of Information Technology and Biotechnology to assess the impact of AI on the workforce is an indication of the State getting set to face up to this multi-dimensional issue

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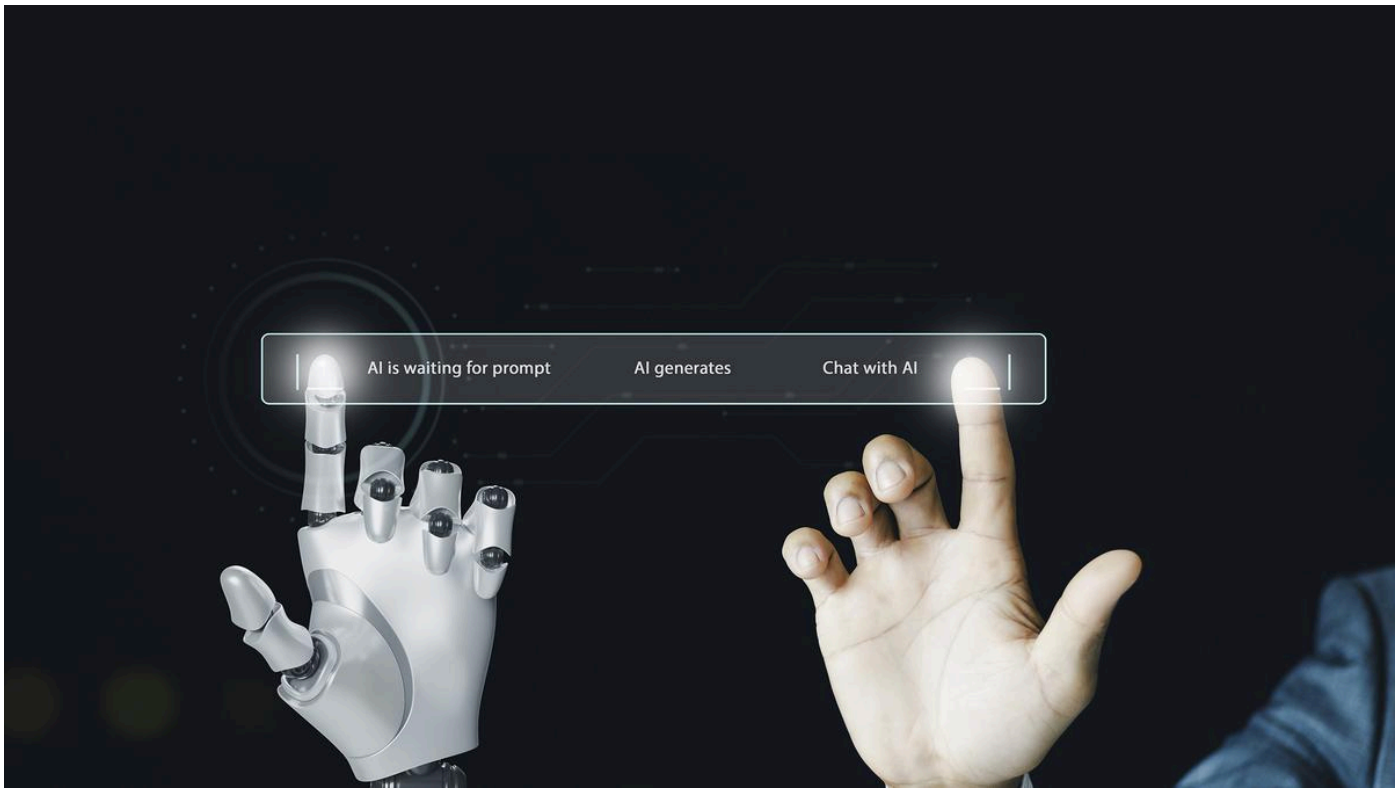
SHILPA ELIZABETH



Balaji Parthasarathy, professor at IIIT Bangalore and principal investigator of the Fairwork India project, argues that in India, the impact of AI on the workforce will pan out differently as compared with the West. | Photo Credit: Getty Images

At a leading hospital in Bengaluru, an artificial intelligence (AI)-enabled invoice digitisation system was implemented around four months ago.

"Initially, the invoice details were documented on paper, and later entered manually into the system. Now, the job is being done by AI, which extracts details from the soft

copies of invoices," says Vijay (name changed), who is overseeing the project and a few other AI initiatives at the hospital.

According to him, automation brought down human intervention in the process by at least 50%. "No one has been laid off. People were only repurposed," he says while admitting that the development may affect recruitments in the future.

Hima (name changed), a consultant at one of the biggest accounting firms, was part of an office meeting recently where people were encouraged to share their apprehensions on the firm's AI implementations. "Some of our coders were very upbeat about the introduction of AI. There is a resource crunch in the coding team, and they are often very stretched. But with the firm investing in AI tools and code assistants, they say life has become easier for them," she notes.

Multifaceted effects

As AI reshapes the workforce across sectors, its effects are proving to be multifaceted, and far from uniform.

Bengaluru is today home to more than a lakh AI professionals. The city was also recently ranked among the top five AI ecosystems in the Global Startup Ecosystem Index. With Bengaluru positioning itself in the thick of AI advancements and the Karnataka government now on the cusp of launching the next IT policy, the State's Information Technology and Biotechnology Department recently launched a survey to assess the impact of AI on the workforce.

Among other things, it aims to understand how AI is being integrated into day-to-day operations across organisations, which business functions are seeing the biggest changes, and which job roles are most vulnerable to automation.

The survey is an indication of the State taking serious note of the big shake-up that is on our doorstep.

Karnataka's Information Technology and Biotechnology Department recently launched a survey to assess the impact of AI on the workforce. | Photo Credit: REUTERS

The AI-augmented future

From enhancing precision in surgeries to detecting fraud in banking and finance, enabling robotic automation in manufacturing, powering personalised recommendations in retail, and optimising traffic control in cities, AI is becoming increasingly ubiquitous and almost indispensable. According to the United Nations, the global AI market is projected to reach $4.8 trillion by 2033.

The other side of this, however, is the fears of lay-off and displacement, especially in jobs involving routine and repetitive tasks, coupled with a growing sense of overwhelm

as workers struggle to adapt to an ever-evolving workplace. A recent report by the United Nations Conference on Trade and Development predicted that AI would impact 40% of the jobs worldwide and widen inequality. Amazon CEO Andy Jassy's recent comment about the company moving to a smaller corporate workforce due to the adoption of generative AI tools and agents has not helped allay fears, particularly as the tech giant has laid off more than 27,000 employees since 2022.

What is going to be the net result of this disruption and how is it going to play out in India?

"I think, in the future, all of us will be AI-augmented humans," says Guruprasad Mudlapur, vice-chairman of the Confederation of Indian Industry, Karnataka, vice-president of Bosch Group in India, and managing director of Bosch Ltd. While acknowledging the possibility of significant disruption across industries, he believes the net outcome will be positive.

Skilling crucial

While it is clear by now that the IT and ITeS workforce stands to see the biggest impact of the technology, changes are expected in sectors such as financial services, manufacturing, healthcare, and e-commerce.

"Skills in general will undergo massive change. The skills required in the new world of AI will necessitate a high level of digital literacy. AI-ML (machine learning) skills even in non-technical roles will be very essential now," remarks Mudlapur.

According to him, while Bengaluru, or Karnataka at large, can boast of the highest AI-ready talent pool, specialist AI talent — which is required to develop an AI model, for example — is in short supply.

"We can see why we have not built a GPT of our own," he points out, while adding that universities also need to take note of the requirements of the future and act on training students accordingly.

Initiatives in skilling

Karnataka's IT-BT Minister Priyank Kharge notes that shaping strategic interventions under the government's skilling initiative, NIPUNA Karnataka, is among the aims of

the AI survey. The survey is the first such initiative by a State government and a serious step in the direction of skilling.

“There is a strong need to understand the actual disruption that is happening. A lot of people are saying a lot of things, but is that disruption going to result in actual job loss, or is it something that can be addressed through reskilling or upskilling? It is to understand this that we have reached out to stakeholders through the survey... If you see the way AI and other emerging technologies have disrupted over the last four years, we would require some collective feedback from the industry so that we would be able to give out the most conducive policy for growth,” he says.

With technology poised to change the way the IT and ITeS sectors work, companies too have been moving in the direction of skilling.

“I’m constantly trying to repurpose my people to shift them towards the demand,” says Ravi Vasantraj, Global Delivery Head, Mphasis. “I’m now changing my talent management systems to start allowing for people to get trained or hyper-personalised in their training. Let’s say someone is a full-stack Java developer, but we are seeing demand for people with React.js or Node.js skills. We will start prodding this person to get trained in them, showing his chances to get higher billing and hence higher compensation,” says Vasantraj who likes to see AI as “an intelligent assist — like J.A.R.V.I.S. to Stark in *Avengers*.”

Sindhu Gangadharan, MD of SAP Labs India and chairperson of the National Association of Software and Service Companies, notes that the company offers curated learning journeys tailored to individual skill profiles, leveraging internal platforms, global partners, and partnerships with institutions such as IIM Bangalore, IIIT Bangalore, BITS Pilani, and Northwestern Kellogg. “The result is a future-ready workforce empowered to lead with an AI-first mindset. Today, 50% of our employees are already AI-enabled. Over the past year alone, they’ve completed more than 35,000 courses and clocked over 2,00,000 learning hours,” she says.

Multiplying demand?

With almost every corporate investing in AI and demand for AI agents and tools increasing, the number of AI roles has also risen, creating a large demand for people trained in the same. A recent report by Naukri JobSpeak recorded a 25% year-on-year rise in hiring for AI and ML roles in India.

“It (AI) will create more than it will alter,” says Vasantraj, who believes that not only will the technology not take away jobs, but will probably multiply the demand 10 times and enhance the productivity of employees.

“The combined industry of North America, Europe, and Asia-Pacific spends anywhere between $1.8 trillion and $1.9 trillion to support legacy technology. This is known as tech debt. People are worried that they will lose their jobs to AI. But our premise is that these $1.9 trillion will come into the market because now it’s viable.”

According to him, the latent demand from clients who were earlier reluctant to deploy AI is now getting activated. Mphasis witnessed its pipeline jumping up by an unprecedented 70% between quarters three and four in the last financial year, he notes.

The other half

The high demand for AI talent in IT/ITeS is, however, only half the story, say sources within the industry. While there is demand, the elephant in the room is the immense pressure on AI development teams within companies, says Radhika (name changed), who works as a project manager at the Bengaluru office of a global technology and service supplier.

“Companies like ours have purchased AI technologies from behemoths like Google or OpenAI for huge prices. The investment has been massive, and they need returns. To get the desired results, they put immense pressure on AI development teams, often pushing them to the brim,” she notes.

According to her, most IT and ITeS companies have so far not been able to achieve the expected efficiency or profits by deploying AI in place of people. “Coding assistance is the only use case that is working to some extent,” she says. The way forward then, has been to extract more out of the remaining employees, alleges Radhika.

“Even when they haven’t fixed the issues with the existing AI tools, they invest in more. This will not only burden the employees, but also reduce the quality of products and services in the industry going forward,” she says, citing the example of the customer services function, where several companies witnessed lower customer satisfaction after trying to replace executives with AI bots.

A case in point is Klarna, a Swedish fintech company which fired around 700 of its employees two years ago to replace them with AI. After coming under fire from customers for lower service standards, the company has now announced a recruitment campaign to bring back human beings.

Technology vs. labour

Balaji Parthasarathy, professor at IIIT Bangalore and principal investigator of the Fairwork India project, argues that in India, the impact of AI on the workforce will pan out differently as compared with the West. He points out how some companies, for example, have abstained from deploying AI in certain roles in India, simply because the labour is cheap and pliant, and labour laws are loosely enforced.

As AI reshapes the workforce across sectors, its effects are proving to be multifaceted, and far from uniform. | Photo Credit: Getty Images/iStockphoto

“If you look at the warehouses of big companies like Amazon in the U.S., there are high levels of automation. In many parts of the world, they are experimenting with drones for delivery. But in a country like India, where labour is relatively inexpensive, it doesn’t make as much sense. It may, in fact, be costlier for companies to bring in these technologies. Here, workers are replaced easily because there is high levels of unemployment and labour rights are not strictly enforced.”

Sector-specific debate

He notes that the AI vs. jobs debate is also sector-specific and a function of whether the AI tools can deliver on the organisational priorities.

“In areas where you require precision or the job is hazardous, deployment of AI or robotics is critical. If there are tasks that can be easily automated at very low costs, AI will be used for them. Then there are fields where the technology will enter but will require human beings to know how to use them to augment what they do, rather than displace them. I think the word ‘augment’ is not considered enough,” says Parthasarathy.

The fear of job loss is not entirely baseless though, admits Mudlapur. Repetitive manual skills may be the most vulnerable, and these might involve job roles such as coding, invoice processing, accounting, and research assistance. Mid-skilled white-collar jobs like analyst might also get replaced if they do not have deep domain knowledge, he remarks.

“We see the coding efficiency going up by 30% if we adopt AI, GPTs, and other tools to enhance the codes. But we can also say we may not require 30% of the software talent. But a positive way to look at it is this 30% could do more sophisticated work, like building models and so on,” he says. “Overall, there will be a shake-up in the job market. That is very clear.”

The shape-shifters

Vasantraj of Mphasis feels the anxieties, at least concerning the job losses in the IT and ITeS sectors, are part of the usual fears before any new technology takes off.

“Our industry evolves very quickly. This industry was written down after Y2K. But we are shape-shifters, and we keep learning. My view is that there will be a decoupling between revenues and headcount, which means that with the same number of people, you’ll be able to multiply revenues,” he notes, attributing the lay-offs at the companies to macroeconomic factors rather than AI.

According to Vasantraj, regulations, responsible AI, and data breaches should be the bigger concerns.

“If AI is combined with quantum, you have a real problem. Your Gmail could be hacked in 30 seconds. Given the kind of geopolitical situations, there will be characters that might start using it in an obtuse manner. It’s similar to nuclear energy in that sense. If you have a J.A.R.V.I.S. with Stark, you will also have a Thanos somewhere. But that’s a problem for tomorrow,” he says.

(Edited by Giridhar Narayan)

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