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The AI Job Loss Threat Conundrum

31 October 2025 | Features | By Sanjiv Das

There are assumptions that Artificial Intelligence (AI) will take away pharma and healthcare jobs. But many are of the opinion that AI will help to transform jobs as well as create new ones in the long run. How much pharma and healthcare companies invest in AI and cope with the latest AI innovations will determine who can survive and who will perish. Let's find out.



Fear being instilled among many when it comes to AI on whether it will usurp jobs. India's job scenario is no better, where retrenchment is common among sectors and the life sciences sector as a whole is no exception.

On one hand, we have people juggling from one company to the other looking for job opportunities. On the other hand, many struggle to make an impact at their organisations. And in this scenario, the coming of AI is leading to a fear factor among many. On whether it will lead to a major reshuffling of overall jobs. It is anticipated that AI will eventually lead pharma and healthcare companies to go in for a major institutional overhaul.

Role of AI in pharma/healthcare jobs

Artificial Intelligence (AI) is rapidly transforming healthcare by improving accuracy, efficiency, and personalisation in patient care from diagnosing diseases through advanced image analysis to predicting treatment outcomes and streamlining hospital operations. It enables healthcare professionals to focus on clinical judgment.

Even the pharma industry is looking out for AI pharma strategists, professionals who can identify AI integration opportunities across the pharma value chain. Then come clinical data scientists, followed by digital health professionals, AI Ethics & Compliance Officers who can ensure AI tools meet regulatory standards and ethical guidelines, particularly important given India's evolving data protection landscape.

In days to come, the need for pharmacovigilance AI Specialists will be in demand to manage AI systems that monitor drug safety signals, precision medicine coordinators, and AI-Human Interface Trainers.

In India, the adoption of AI in the pharma and healthcare sectors is accelerating. Approximately 40 per cent of clinicians in India are now using AI technologies, reflecting a significant increase from previous years. Indian pharma companies are implementing AI solutions in drug discovery, with 50 per cent exploring Generative AI proof-of-concept initiatives and 25 per cent having implemented AI solutions in live production environments.

A reduction in headcount?

While AI may automate certain tasks, it also creates new roles and enhances existing ones. Globally, AI is expected to create between 20 and 50 million new jobs by 2030, particularly in healthcare and pharmaceuticals.

Says **Dr Rajendra Pratap Gupta, Founder - Health Parliament and former Advisor to the Union Health Minister, Government of India**, "The job losses will be majorly in the traditional field force roles - medical representatives, sales teams, and certain administrative positions that rely on manual processes. The new job creation will be in AI-specialised roles, data science, bioinformatics, and digital health management positions. The Global Capability Centres (GCCs) will create jobs with the new skill sets. I see that in a five-year time horizon, there will be a new way to look at manpower. By 2030-32, the pharmaceutical industry will shed nearly half a million workforce."

Sanjiv Navangul, MD and CEO, Bharat Serums and Vaccines, while speaking at the recently held Global Digital Health Summit in Mumbai, mentioned, "Layoffs are for jobs, not for people. Just like computers didn't eliminate people—but created better jobs—AI will elevate human potential. Those who upgrade their skills will find better and more meaningful opportunities. The question is not about AI taking away your job; it's about whether your skills are good enough for the evolving roles and jobs in the future. The divide between ethics and AI is crucial. As AI becomes more encompassing, leaders must ensure that AI serves people and not replaces them. Remember, the future is all about democratisation of AI."

Dr Avani Oke, Principal, K J Somaiya College of Nursing, mentions, "AI will lead to a reduction in headcount in some roles which are repetitive, but it will also create an opening for roles that require design, validation, and operations. AI will cause job displacement. The job displacement is because AI reduces time and cost in report generation, triage, and screening, which are laborious. Job displacement may be seen in administrative, routine image-reading, and data-processing roles. The requirement for a role mix involving technical, clinical analytics and product roles will be the need of the hour. I think we need to understand that AI can assist, but compassion, empathy can never be replaced, and the healthcare sector will require human touch."

At Terumo India, AI tools play a crucial role in improving efficiency and quality. Tools such as AI-driven predictive analytics can help forecast equipment demand, optimize inventory, and anticipate supply chain disruptions. Terumo India is seeing strong advancements in Clinical Decision Support Systems, AI-powered product and drug discovery platforms, and patient engagement solutions that enhance the entire care journey from appointment scheduling to treatment and post-care follow-up.

Virender Bansal, Vice President, Finance, Supply Chain, IT & Legal, Terumo India said, “AI is certainly transforming the MedTech sector, but I see it more as an opportunity than a threat. While some routine and repetitive tasks may get automated, this doesn’t mean entire jobs will disappear. In fact, AI allows professionals to focus on higher-value activities such as complex problem-solving, innovation, and patient-centered care. I personally see a rise in hybrid roles – meaning domain experts refining their skills with tech expertise. The key to this is proactive upskilling. Given the growing demand for healthcare services and the shortage of specialised talent, AI can bridge workforce gaps and improve operational efficiency. Over the next 5–10 years, we expect new roles to emerge in areas like AI oversight, data analytics, digital therapeutics, patient experience, clinical technology management, and cross-functional innovation teams.”

Preparing existing workforce

Pharma and healthcare companies need to reskill programmes. Companies need to partner with platforms to offer courses for all its employees for upskilling and cross skilling across digital health. There will be a need to create pathways for field force to transition into digital roles - patient support programmes, telemedicine coordination, data collection and digital customer success positions. Nothing will happen overnight and gradual acceptance of AI will be beneficial both for the employer and the employees.

Chances of medical representatives (MRs), the traditional ones, will become obsolete. This is where AI will play a role, where MRs will be needed to undergo training in digital therapeutics.Provided AI is well accepted among the MRs, the future will be more strategic, data-driven and digitally enabled.

Needed investment

Large pharma companies will be able to spend a substantial amount on adopting AI. In the case of smaller pharma players, the amount of investment remains in question. Chances of smaller players falling behind is high as AI requires significant upfront investment in infrastructure, talent. Limited access to AI talent will add to the woes.

Democratisation will happen provided there is an urge among pharma and healthcare companies to invest in AI.

On the other hand using AI has cyber risk challenges, where the entire data of a company can be compromised if data is not secured. Here, a substantial amount needs to be invested to take care of the data.

Creating skilled jobs

India’s digital health initiatives, such as Ayushman Bharat and the national AI strategy, are creating infrastructure for scalable AI adoption. Companies are encouraged to build AI products and increase demand for the integration of data. Qure.ai, Niramai and SigTuple, from India, have been able to scale and chase global markets. This is creating skilled jobs in AI engineering, clinical validation, sales, and regulatory functions. AI adoption requires rigorous validation and workflow integration, making roles in clinical validation, regulatory and product implementation in demand.

Outcome

Long-term dependency on AI may lead to specialists' jobs being reduced. The right investment in deploying AI and training the needed workforce who can bring in the necessary growth to the company will lead to lesser job loss. Allaying fears, AI is already becoming a reality, and pharma and healthcare companies need to harness the potential of AI.

As **Dr Nipun Sharma, CEO, TeamLease Degree Apprenticeship,** says, “In India, the adoption of Generative AI (GenAI) in the pharma and healthcare sectors is anticipated to unlock 30-40 per cent productivity gains. This indicates a shift towards more specialised, higher-value positions that require human oversight and expertise. However, the integration of AI also presents challenges like workforce reductions, especially in entry-level positions. This highlights the importance of reskilling and upskilling initiatives to prepare the workforce for the evolving demands of the industry.”

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