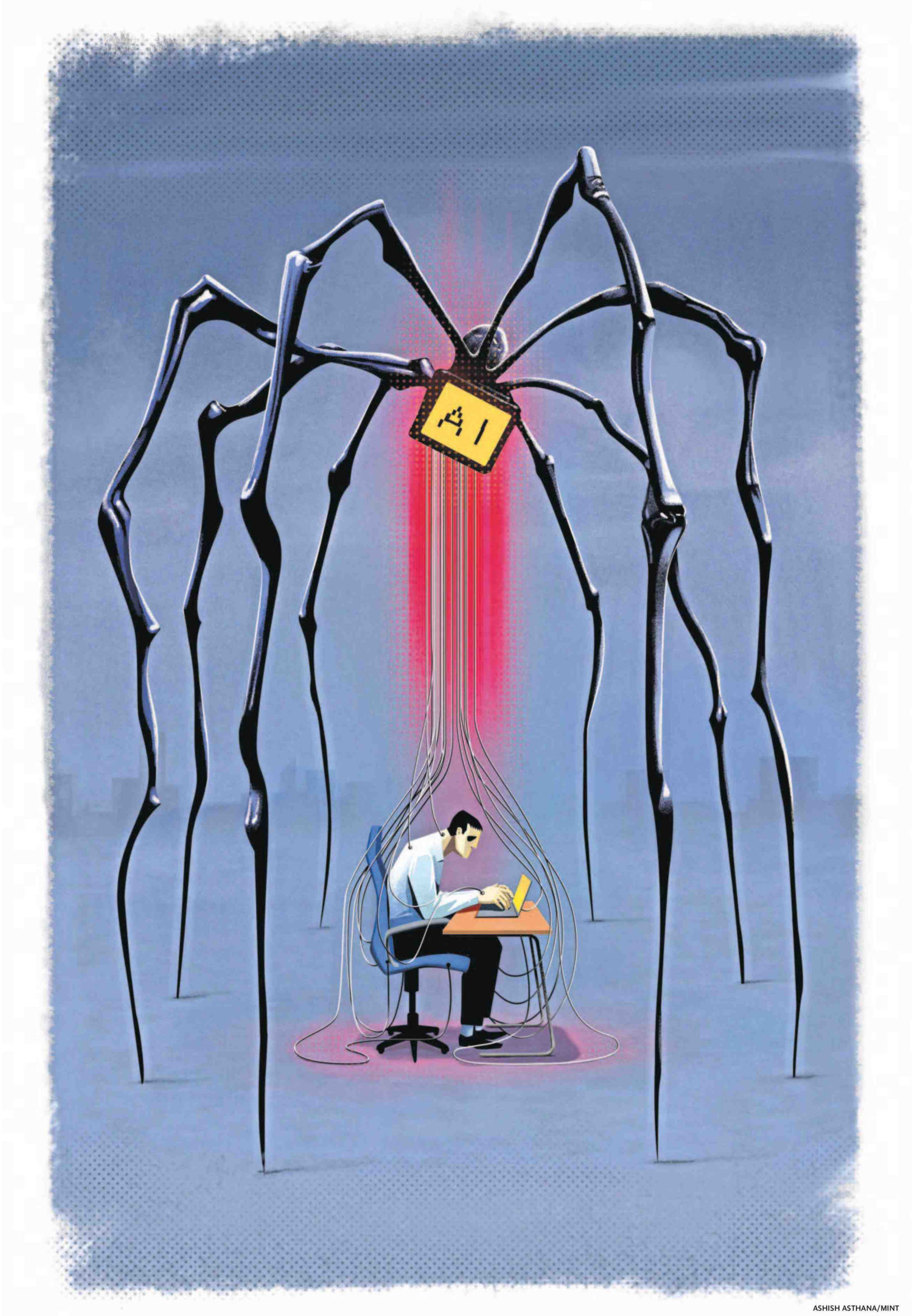
THE BIG JOBS DEBATE: WHO'S AT RISK FROM GenAI?

Previous tech waves impacted the blue-collar worker. Now, the white-collar employee's future is more threatened

Leslie D'Monte
leslie.d@livemint.com
BENGALURU



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WHAT

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NOW

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BUT

Firms planning to replace jobs with generative AI-created content and images must realize that these models can plagiarize and violate copyrights, besides inheriting biases.

On 12 May, Nithin Kamath, founder and CEO of Zerodha, India's largest stock brokerage firm, made an unsettling disclosure. "It took us 30 mins to integrate commoditized ChatGPT, see tangible benefits, and realize that more than 20% of jobs could be automated. Now, imagine what more intelligent tools could lead to?" he tweeted.

ChatGPT is an artificial intelligence (AI)-powered chatbot developed by OpenAI and was first launched in November 2022.

Aware of the anxiety that such a statement could cause among his employees, Kamath was quick to add that as per Zerodha's new internal AI policy, "we will not fire anyone on the team just because we have implemented a new piece of technology that makes an earlier job redundant."

The tweet went viral but it also spread some comfort to those fearing job losses from the rapid march of generative AI—algorithms that can create various types of content, be it text or image.

About two months later, on 10 July, Suumit Shah, the chief executive officer (CEO) and co-founder of Dukaan, a Bengaluru-based ecommerce platform for small businesses, made a similar announcement. This time, however, there was a sting in the tweet. Shah announced that he had to "layoff 90% of our support team because of this AI chatbot". He cited three reasons for his "tough" but "necessary" step to become a profitable startup. First, the call response time (how quickly an agent responds, typically in a customer service centre) with the AI chatbot had dropped from one minute to 44 seconds. Second, the resolution time fell dramatically from 2.13 hours to just 3.12 minutes. Effectively, he claimed to have saved 85% in customer support costs.

Given the anxiety over generative AI tools gobbling up jobs, the backlash was swift. Some called Shah "heartless". But the fact is that Shah was transparent about using AI models to save on costs. Many employers are doing it discreetly to avoid a backlash from more and more routine human jobs getting automated.

Unlike traditional machine learning (ML) that can analyse data patterns to make predictions, generative AI foundational models and large language models (LLMs) have the ability to learn the structure of almost any information—be it text, images, video, proteins, DNA, physics, etc—and generate new content with the help of prompts. In simple terms, LLM models can both learn and comprehend.

Big and small companies are now fine-tuning these LLMs. ChatGPT is LLM-powered. So are other chatbots such as Bing Chat, Bard, Hugging Chat, Dall-E 2, and Mid-Journey. By customizing the LLMs and putting them to use, companies are hoping to reduce their customer centre, content and agency costs. Such efforts would also increase their shareholder value or bargaining power—startups, for instance, could seek higher valuations for the next funding round.

JOBS MOST AT RISK

Not all jobs are at risk. Well, some roles are more at risk than the others. Here's what surveys tell us: an OpenAI report, published this March, suggests that four in five US workers could have at least 10% of their tasks automated by generative AI, and one in five could see at least half of their responsibilities affected. Goldman Sachs predicts that generative AI could expose the equivalent of 300 million full-time jobs to automation, while a Microsoft report says that 74% of Indian workers are worried that AI will replace their jobs.

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According to a recent report from McKinsey, a management consulting firm, industries relying most heavily on knowledge work are likely to see more disruption from generative AI while potentially reaping more value at the same time. These industries include technology, banking, pharmaceuticals/medical products, and education.

Emad Mostaque, CEO of Stability AI, known for its text-to-image generator tool Stable Diffusion, reportedly told UBS analysts in June that Indian engineers working in the information technology sector would be impacted as AI deployment by multinationals would lessen the work being outsourced. And according to Sunil C, CEO of staffing solutions company TeamLease Digital, some jobs are already getting replaced in the customer care divisions.

Media jobs, too, may undergo substantial changes. In July, an Odisha-based private news channel, Odisha TV, launched an AI-generated news anchor named Lisa who now presents news both in Odia and English for the company's television and digital platforms. Many US-based media organizations use AI to generate content—and declare it too—claiming many routine desk and reporting jobs.

Similarly, many content writing roles are at risk. A 22-year-old copywriter from Kolkata, Sharanya Bhattacharya, is a case in point. *The New York Post* reported on 2 August that Bhattacharya, once a ghostwriter and copywriter for a creative solutions agency, now earns only 10% of what she used to make earlier, or ever since her firm introduced ChatGPT.

Bhavana Pandey, founder and chief content strategist of Wytti, a content generating company, acknowledges that generative AI does pose a threat to creators and agencies who play the volume game, say search engine optimization content creation or mass production of blogs. She qualifies that niche content creators are leveraging generative AI to "elevate their offerings".

"Generative AI will definitely speed up projects. It can complement our storyboarding. Instead of drawing multiple pictures or illustrations, I can now simply visualize them by giving multiple prompts," says Anant Ahuja, co-founder and managing partner of a Delhi-based art and design agency, Irregulars Alliance.

"Further, our social media posts are no longer created by a dedicated writer, and our content copywriting costs have reduced by 3x after we began using these generative AI tools," he adds.

Globally, human models are being replaced by AI-generated ones and Hollywood scenes are being generated by AI. This implies a coming disruption to the entertainment business.

JOBS THAT ARE SAFE

McKinsey, in its report, underlines an interesting reversal. Previous technology waves impacted manufacturing companies the most. Robots, for instance, reduced the need for human labour on factory floors. Therefore, companies who built smart factories never hired truckloads of blue-collar workers.

But this tech wave is different—it impacts the white-collar worker, those sitting in air-conditioned offices, doing work that requires a higher cognitive ability. Generative AI's strengths are in language-based activities, not physical labour.

Martin Ford, author of *Rule of the Robots: How Artificial Intelligence Will Transform Everything*, put the shift succinctly in an interview to the BBC: "The white-collar employee's future is more threatened than the Uber driver's, because we still don't have self-driving cars, but AI can certainly write reports."

Manufacturing-based industries—such as aerospace, automotive and advanced electronics—could thereby experience less disruptive effects, according to McKinsey.

Surveys conducted by the World Economic Forum (WEF) for its 'Future of Jobs' report corroborate this trend. The report suggests that the highest job growth in 2023-2027 will be for agricultural equipment operators, drivers of heavy trucks and buses, and vocational education teachers, followed by mechanics and machinery repairers and business development professionals.

WEF expects jobs for agricultural professionals to rise by 30% in the coming five years, spurred by the increasing use of agricultural technologies and investments in climate change. The education sector, too, is expected to see an increase in jobs with more people taking up courses to upgrade their skills in AI and other technologies.

That said, companies planning to replace jobs with generative AI-created content and images must realize that these models can plagiarize content and violate copyrights, besides inheriting biases from their training datasets. They also hallucinate (provide convincing yet untrue or inaccurate statements), raising concerns regarding the accuracy and reliability of information generated by these tools. This increases the need for ethical oversight and fact-checking.

"We use them only for reference since we do not know what data they have been trained on, which could land us in trouble for unintended plagiarism, copyright violation, etc. Authorship is a very critical element for artists," says Ahuja of Irregulars Alliance.

Even with generative AI, you need people with ideas, thought processes and those who understand design protocols. "We are technicians. Generative AI can help and aid us in the process of visualization and generating art, but it cannot replace our brains. Brands need a socio-cultural connection in their art works, which explains why big companies have art and culture labs too. Generative AI is currently unable to provide that connect," asserts Ahuja.

Pandey has a similar view. "We, at Wytti, use it as a sounding board for experimenting with new ideas. But do not find it reliable enough yet for original content creation or research. Generative AI does bring a notion of assistance, but it's the people who bring in the nuanced understanding of the human psyche which is at the centre of content marketing," she says.

JOBS THAT ARE NEW

On 8 July, Rajeev Chandrasekhar, the Indian minister of state for electronics and information technology, termed the idea of AI taking away jobs from humans as "nonsense, *bakwas*, and zero". Reminding people of the time when they feared that "Y2K (year 2000 bug) will wipe out the world", he said that AI was task-focused and essentially made tasks more efficient by mimicking human behaviour.

Chandrasekhar was speaking at the Society for Applied Microwave Electronics Engineering and Research, an R&D laboratory in Mumbai.

If you didn't know, Chandrasekhar was a techie (worked with Intel) and an entrepreneur. In 1994, he founded BPL Mobile and in 2005, Jupiter Capital, an investment and financial services firm.

His argument is hard to dispute. Generative AI tools do assist humans to perform better, and have the potential to make us better writers, artists, and coders while also creating new jobs. What are the new jobs? Two examples are prompt engineers and AI safety and security officers. Growth of generative AI would also require organizations to hire more data scientists, machine learning engineers, and data engineers.

According to Arun Chandrasekaran, distinguished vice president and analyst at Gartner, a tech advisory firm, generative AI will be a productivity booster rather than eliminate jobs in the near term. "There are a variety of functions where generative AI has the potential to enhance productivity—the primary ones will be customer service, marketing and communications, software development, IT functions (security, infrastructure and operations), office and administrative support, legal functions," he explains.

The number of jobs mentioning 'GPT' on LinkedIn, a professional networking site, has increased by 79% year-on-year, Ashutosh Gupta, country manager of LinkedIn India, informs. LinkedIn data, he adds, also shows that the five fastest growing AI-related skills in 2022, based on year-on-year growth in skills that have been added to member profiles, include question answering, classification, recommender systems, computer vision, and natural language processing.

Sunil C of TeamLease Digital, too, believes that AI will generate millions of jobs globally. But these new jobs will be created for people who are going to learn AI—people will need to prepare and upskill.

He points out that there are 20,000 AI jobs currently available in India. "Machine learning, deep learning, data scientists, data analysts, robotics, python, big data, and business intelligence are some of the skills where we have seen a lot of open positions. We have seen some roles for prompt engineering open. But we have not seen any open positions for ChatGPT or AutoGPT," he says.

Upskilling, however, is easier said than done.

Nonetheless, employees will do well to listen to Richard Baldwin, an economist and professor at the Geneva Graduate Institute in Switzerland. During a panel discussion at the 2023 World Economic Forum's Growth Summit, he said: "AI won't take your job. It's somebody using AI that will take your job."

Abhijit Ahaskar contributed to this story.