

# Economists start taking A.I. job threat seriously

No major disruptions yet, but experts say it's time to think of workers

## Economists get serious about A.I.

BY BEN CASSELMAN

Among tech evangelists in Silicon Valley, it has become conventional wisdom that artificial intelligence will rapidly reshape the labor market, for better or worse. Economists, however, have often discussed A.I.'s impact with a skepticism bordering on dismissiveness.

Rising unemployment among young college graduates? The result of high interest rates and macroeconomic uncertainty. Dire predictions of widespread job losses? A failure to understand the lessons of past technological revolutions. Even the layoffs that companies themselves blamed on artificial intelligence were often chalked up to "A.I.-washing" from executives looking for something to blame other than their own mismanagement.

Recently, however, the message from economists has undergone a subtle change. Most still do not see much evidence that A.I. is disrupting the job market. But they are starting to take seriously the possibility that it could someday soon. If it does, they are worried that policymakers are not ready to respond.

"I don't think A.I. has hit the labor market yet, and I don't think it's radically changed corporate productivity yet, either, but I think it's coming," said Daniel Rock, a University of Pennsylvania economist who has studied the economic impact of artificial intelligence.

In a working paper published this past week, a team of researchers surveyed economists about their outlook over the next five and 25 years. Most expect the economy to grow a bit more quickly as A.I. improves, but not to diverge substantially from historical patterns. If the technology improves rapidly — a possibility they consider unlikely but plausible — they envision a far more drastic scenario, with faster growth but also greater inequality and the disappearance of millions of jobs.

"Economists are certainly taking A.I. seriously," said Ezra Karger, an economist at the Federal Reserve Bank of Chicago who was one of the study's authors.

Economists' expectations for the future looked relatively similar to those of A.I. industry insiders, who were also surveyed for the study. Both groups agree the future is uncertain: A.I. could either wipe out whole categories of jobs or cause few job losses. Its effects could be concentrated among entry-level white-collar workers or spread to more experienced workers and those in blue-collar jobs. The changes could upend the economy within years or take decades.

Given the potential scale of the disruption, economists say it is time to start considering the policies that could help workers displaced or otherwise harmed

by the changing economy — something that societies often failed to accomplish in past technological transitions.

"There's enough conversation around this that we certainly should, as a country, be talking about what sorts of policies make sense in a world where the way employment and careers work now changes a lot in the next two to five years," said Robert Seamans, an economist at New York University.

### A PARADIGM SHIFT

When OpenAI released ChatGPT to the public in November 2022, Alex Imas, an economist at the University of Chicago, did not necessarily see it as an economic game changer, he said. The technology was powerful but limited, prone to mistakes and incapable of producing work with the quality and consistency necessary for most professional applications.

"I knew it was important, but I was definitely on the more skeptical side when it first came out," Mr. Imas recalled.

For Mr. Imas, the real shift came in late 2024, when OpenAI released a model capable of "reasoning," meaning it could work through a question step by step before producing an answer. That ability greatly expanded the type of problems the model could tackle, and made it more reliable at solving them.

"It was just a paradigm shift for me," Mr. Imas said. "And then I started thinking, 'This is potentially an industrial revolution-scale event, if not more.'"

For other economists, the shift came just in the past few months, with the release of Claude Code — a tool from the A.I. company Anthropic that writes computer code from users' prompts — and the widespread rollout of A.I. "agents," autonomous systems capable of performing tasks directly.

Molly Kinder, a senior fellow at the Brookings Institution who studies A.I., said that as she experimented with the new tools, she had a realization: She no longer needed anyone to do the kind of basic research that she ordinarily hired college students and recent graduates to perform — and that she had performed herself early in her career.

"I really don't know anything a college student can bring to my team that Claude can't do," she said. More senior jobs — ones that require interacting with clients and investors, or making strategic decisions — may be safe for now, she said. But "if you can do your job locked in a closet with a computer, ultimately you're going to be in trouble."

### EVERYWHERE BUT THE STATISTICS

Technological advancement alone will not reshape the economy. For that to happen, companies need to adopt the tools and figure out how to use them pro-

ductively.

History shows that the process almost always takes longer than the inventors expect. Legal and regulatory hurdles slow things down. Companies have to retrain workers or hire new ones. Corporate leaders have to develop new processes and overcome resistance from reluctant managers and cautious information technology departments.

"These conversations have been, in my opinion, overly focused on what the technology can do," said Martha Gimbel, the executive director of the Budget Lab at Yale University in Connecticut. "There's plenty of technology that could have changed things and didn't."

Many hospitals kept patients' health records on paper for decades after the technology existed to digitize them, Ms. Gimbel noted. Videoconferencing tools have existed for years, but it took a pandemic to force companies to embrace them.

There are signs that A.I. could flow through the economy more quickly than past innovations. Already, nearly one in five companies reports having used A.I. in the last two weeks, according to data from the Census Bureau, and in some industries the rate is twice as high. Workers report using A.I. at even higher rates, suggesting many may be experimenting with the tools on their own initiative.

And while A.I. has not yet had a big impact on aggregate statistics, some economists argue its effects are visible beneath the surface. In a paper published last year, researchers at Stanford University in California found that employment was declining for entry-level workers in jobs that were highly exposed to A.I.

Technological advancements "sometimes take decades" to appear in the economy in the form of increased productivity, said Erik Brynjolfsson, one of the authors of the Stanford paper. "I don't think it's going to be decades this time."



Peso:7-28%,8-5%

**“TECHNOLOGICAL SHOCK”**

Mr. Brynjolfsson stands out among economists for his confidence in A.I.'s impact. But his forecasts look sober compared with many coming out of Silicon Valley.

Dario Amodè, the head of Anthropic, has warned that A.I. could eliminate 50 percent of entry-level white-collar jobs within years. The tech investor Vinod Khosla predicted last year that A.I. would replace 80 percent of jobs by 2030. Elon Musk has said the technology will render work “optional.”

Many economists dismiss such predictions, arguing that the A.I. debate should focus less on where the economy will wind up in the end and more on the potentially difficult period of transition.

“The pressing question is, ‘You’re going to have a technological shock — how painful is it going to be?’” said Ms. Gimbel of the Yale Budget Lab.

The spread of A.I. does not have to mean large-scale job losses, economists argue. As much as 70 percent of jobs, by some estimates, are in some way exposed to A.I. But that does not necessarily mean those workers are about to be laid off.

In a report published on Friday, researchers at Boston Consulting Group estimated that more than half of the jobs in the United States would be “re-

shaped” by artificial intelligence over the next two to three years but that far fewer would be replaced entirely. Most workers perform a range of tasks in their jobs, only some of which can be done reliably by A.I. And even where it may be possible to replace a worker, companies are proceeding cautiously, because the stakes are higher if humans are no longer signing off on the computer’s work.

“What we’re actually seeing is that full-scale replacement of jobs is much, much slower because the implementation is harder,” said Greg Emerson, the report’s lead author. “Whereas the augmentation and the reshaping of jobs is happening much, much faster.” Still, A.I. will almost certainly cause job losses in specific industries as companies adapt. How painful that transition turns out to be, economists say, depends on two factors: speed and breadth.

If the A.I. revolution plays out gradually, it will give workers time to adapt. Older workers can finish out careers, while younger ones can learn relevant

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skills or change careers entirely. If A.I.’s impact is limited to certain sectors, that will make it easier for workers to find opportunities in other parts of the economy.

But a broad, rapid change will give

workers little time to adapt, and few places to hide.

“If speed is slow, then you have time for employment to adjust, for new roles to be created,” said Mr. Imas, the University of Chicago economist. “There’s disruption, but not something we haven’t seen before. But if it’s fast, you can get really wacky things start happening.”

However A.I. affects the labor market, economists say, policymakers should act now to modernize programs that could help displaced workers.

The unemployment insurance system, for example, excludes many of the new graduates who are likely to be hit first by A.I. Retraining programs are often slow-moving and poorly funded.

But some economists worry that such tools are not up to the challenge.

“In the past, our social safety net was designed to help people over transitory shocks,” said Anton Korinek, an economist at the University of Virginia. “This one might actually be a more permanent shock.”

Mr. Korinek was an early convert to the idea that A.I. could prove to be a uniquely transformative technology. He remains an outlier among his peers in his willingness to consider more extreme scenarios, such as the possibility that A.I. becomes better than humans at every task.

Many economists shy away from such discussions, Mr. Korinek said, an impulse he called “emotionally understandable but practically a really bad idea.”

“As economists, part of our job is to worry about what are the biggest risks,” he said. “What could cause disruptions, and how should we prepare for those disruptions?”

Mr. Korinek will continue to make those arguments, but not from an academic perch. At the end of the semester, he will take a leave from the University of Virginia to join Anthropic.

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