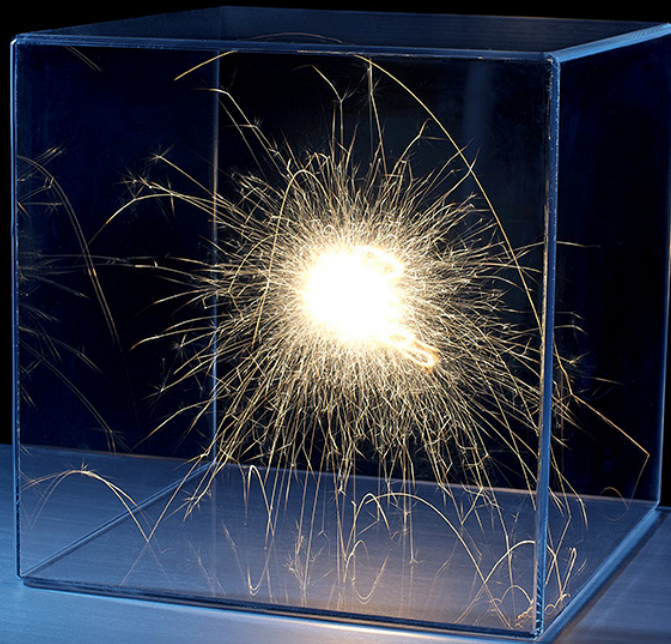


# Generative AI: How will it affect future jobs and workflows?

Gen AI and other recent trends affecting the labor market point to the importance of upskilling, reskilling, and training to empower the global workforce.



**As companies struggle** to understand the implications and applications of generative AI (gen AI), one thing seems clear: AI and its future iterations are not going anywhere. On this episode of *The McKinsey Podcast*, senior partner Kweilin Ellingrud and partner Saurabh Sanghvi share findings from McKinsey's latest report on gen AI with editorial director Roberta Fusaro and explain why companies must pivot to embrace the technology itself and the deep and lasting changes it may create. Individual and organizational adaptability will be critical.

Also on this episode, the advent of gen AI has many people thinking about the future of their jobs. Joanne Lipman, author of *Next! The Power of Reinvention in Life and Work* (Mariner Books, March 2023), shares a four-step process for figuring out where you might go next and how you'll get there, in our *Author Talks* series.

This transcript is edited for clarity and length.

*The McKinsey Podcast* is cohosted by Roberta Fusaro and Lucia Rahilly.

## First a pandemic . . .

**Roberta Fusaro:** Before we dive into the findings of McKinsey Global Institute's report on gen AI and the future of work in America, I want to ask, why this report and why now?

**Kweilin Ellingrud:** Two influences have changed things. One is we're emerging from three years of COVID, where there has been so much turmoil and change in the workforce. And two is generative AI that burst onto the scene about six months ago.

Together, they've changed the nature of work and jobs and inspired us to ask, "What's different now?" and, "What can we expect in the future?"

**Saurabh Sanghvi:** I would add that the labor market looks different from what we've typically seen. We think that some of that has to do with the pandemic, and some of that has to do with workers' needs and preferences changing.

We're seeing all kinds of unprecedented technical change even beyond generative AI. If we go a step further, we're seeing a record level of federal investment in infrastructure and efforts for reaching net zero. It's this confluence of factors that we really wanted to cover with this new piece around the future of work and generative AI.

**Roberta Fusaro:** Are pandemic-era labor shortages here to stay?

**Kweilin Ellingrud:** Right now we have two job openings for every person who's unemployed. So we're quite out of balance compared with previous years. We do think that a tight labor market will persist. I don't think it will be quite as tight as it was maybe a year ago, as we were emerging from the pandemic.

Some of the long-term trends we saw accelerate during the pandemic will persist, including people looking for greater flexibility in work, greater control over their career evolution, and greater meaning and connectivity in their jobs and workplaces.

**Roberta Fusaro:** Which occupations or which occupational categories have been most affected during the pandemic era? Which are growing, and which are declining?

**Kweilin Ellingrud:** There are a number of growing occupations. Those would be a lot of healthcare jobs, STEM jobs, transportation jobs, delivery.

And then there are a lot of shrinking occupations. I think 80 percent of the occupational transitions between now and 2030 are in four occupational categories: customer service, food service, production or manufacturing, and office support. Those four occupations are going to need a lot of reskilling, upskilling, and support to encourage those workers to gain the skills so that they can re-pot in other occupations that are growing in our economy.

**Saurabh Sanghvi:** To add, we're starting to see a steady rise in rebound, like builders, educators, and the creative economy. Some of that has been from federal infrastructure. When we start talking about builders and construction, a lot of that has been from major infrastructure builds that have been motivating and incentivizing infrastructure.

# ‘The impact of gen AI alone could automate almost 10 percent of tasks in the US economy.’

–Kweilin Ellingrud

But the other one that I'd want to underscore is the educator one, where the pandemic really put a structural hit on how we thought about education. But now we're going back to the long-term historical trend of the fact that we need a lot more educators at all levels.

## ... and then a tech transformation

**Roberta Fusaro:** But then when you add automation and the specter of gen AI to the mix, what effect do we project that'll have on the labor market?

**Kweilin Ellingrud:** The impact of gen AI alone could automate almost 10 percent of tasks in the US economy. That affects all spectrums of jobs. It is much more concentrated on lower-wage jobs, which are those earning less than \$38,000. In fact, if you're in one of those jobs, you are 14 times more likely to lose your job or need to transition to another occupation than those with wages in the higher range, above \$58,000, for example.

But it also does affect the jobs on the higher end of the wage range. Writers, creatives, lawyers, consultants, everybody is going to need to work differently, because parts of our jobs will be affected by gen AI. For some, it will be a more fundamental elimination of the job. For others, it will more remake how we spend our time.

## Building new worker skills

**Roberta Fusaro:** It is quite a significant number, and sort of frightening. But also, I know there are a lot of great opportunities associated with gen AI. When we were talking about the impact on lower-wage workers, in particular, what are the mechanisms by

which we can ensure that there is a way to move up the ladder?

**Kweilin Ellingrud:** Twelve million occupational transitions are likely going to need to happen between now and 2030, with 80 percent of those in those four occupations that I mentioned: customer service, food service, production, and office support.

How do we make sure that workers in those jobs can reskill and upskill? A lot of that depends on individual companies to do that at scale, not in the hundreds but in the thousands of workers. I think public-private partnerships between the federal government and educational institutions could help to train and build the skills of our workforce.

Then, as employers shift to more skills-based hiring, looking for the skills that they need as opposed to credentials, that will help as well. The silver lining of all of this is that we will have more jobs in the future than we do today, given demographic trends, given consumption trends, and GDP growth. On average, those jobs will be higher-paying jobs, but require higher levels of education.

**Roberta Fusaro:** I like the positive outlook. I think it's what we all need. I am curious, though, how do we ensure that the future of work doesn't exclude traditionally disadvantaged groups?

**Kweilin Ellingrud:** It's a great question because it is a danger, and if left unmanaged, it will affect lower-wage workers more. It will affect people of color more. It will affect women more. For instance, women are about 50 percent more likely to be in one of those occupations that needs to transition, compared with men.

# ‘How do we make sure that workers in those jobs can reskill and upskill? A lot of that depends on individual companies to do that at scale, not in the hundreds but in the thousands of workers.’

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How we make sure that we support this need is to target reskilling and upskilling. There are certain programs that can help identify if you are in a customer service and sales role. They can help to identify the career paths that could build on those skills to help you move up the ladder and maybe reskill and upskill in a targeted way to find that next job.

Federal programs could help as well. For example, on the infrastructure investments, we saw that contracts would be awarded to companies that provide childcare, for instance. And that will also help to be more inclusive to working mothers, as construction has at least historically been quite male and quite White. But with all the infrastructure investment, a lot of the jobs created there can now be more equal in terms of where the job growth goes.

**Saurabh Sanghvi:** We really need intentional focus. As we think about the solution space, if you look in the higher-ed sector, for example, the ability to work with historically Black colleges and universities is a great way to really help Black learners, for instance, get into these high-wage, high-growth pathways and some of the occupations that we’re highlighting.

Similarly, when we think about some of the workforce development programs, there’s a lot of investment that’s going into new regions that haven’t really had vibrant innovation hubs. Investments like that can really help create some of these opportunities in the geographies that typically haven’t had all of the job growth previously.

**Roberta Fusaro:** How should employers think about the data in this report in terms of changing the way they’re thinking about talent development and so forth?

**Saurabh Sanghvi:** There’s a huge role that employers can play in this. First, really thinking about how to hire for skills instead of looking at someone’s degree or the prerequisite of the job they previously had.

The second thing is that there’s a real opportunity to think about pipelines and pathways. Everybody is learning about these new technologies. Everybody needs to upskill. Companies can really think about opportunities to hire from within instead of externally for an open role. They can find pathways within the company that help someone move out of a role that is in less demand and into a role that has more of a demand. That would be probably far more cost-efficient, because you already have the human capital.

Finally, even if we think a little beyond generative AI, what we’re seeing is that workers are demanding a new style and way of working. So, the other thing that’s going to be really important is, can employers really design new ways of working and working models that can be more flexible, that can really take advantage of in-person moments as well as remote moments? And can that be done in a way that actually becomes more inclusive and attractive to women workers and adult workers who are also maybe taking a college course?

## Green jobs = growth

**Roberta Fusaro:** The report notes the role of the federal government in investing in infrastructure renewal and initiatives to achieve net-zero climate goals. What impact could this have on the labor market?

**Saurabh Sanghvi:** We think net zero is going to be a tremendous opportunity for job growth. But similar to some of the things that we've talked about regarding automation and AI, it will require quite a bit of transition. Ultimately, what we will see is some labor demand declines in jobs that relate to the oil and gas industry and labor demand increases in things that we would call greener jobs around renewable energy, like solar and wind, and the entire infrastructure around that.

The key thing that's going to need to happen is, how do we help workers transition from categories that are potentially declining to those greener jobs? And how do we think about upskilling in those greener jobs? The infrastructure story is a little simpler to understand. A lot of the investments the federal government has been making in many ways are record-level. They're going toward construction, building, repairing roads, bridges, and other things like that. So the big area that this is going to directly impact is the construction sector.

One of the big opportunities there is that it's a sector that has typically been quite male-dominated. So there are significant opportunities to think about, how can we expand those opportunities to women? Similarly, it's also a sector that isn't very diverse if we look at it from a race and ethnicity standpoint. How can we expand opportunities there for people of color as well?

**Kweilin Ellingrud:** On the net-zero side, we see a net increase of about 700,000 jobs. But it's actually displacing about 3.5 million jobs that either directly or indirectly would be eliminated.

Then there are gains in renewable energy and other areas of over four million jobs. But that's a lot of both displacement and then net new job creation. So there is a lot of disruption in the workplace in the overall job economy for that net creation of 700,000 jobs. But, hopefully, that will be a huge growth driver in the future.

**Roberta Fusaro:** I'm already thinking that, as a female podcast host and editor, I should start thinking about a shift into the construction sector or some of these other opportunities that you're citing, because it's really compelling data.

**'Ultimately, what we will see is some labor demand declines in jobs that relate to the oil and gas industry and labor demand increases in things that we would call greener jobs around renewable energy, like solar and wind, and the entire infrastructure around that.'**

—Saurabh Sanghvi

**Saurabh Sanghvi:** There could be many new green jobs, so there's a huge opportunity in the country to really start marketing the fact that there's an entire sector of jobs that students and adult workers could be getting into, that could really go about saving the planet.

If you start thinking about the next generation of student that wants to be more mission-driven and cares about the purpose of their job, there's a tremendous opportunity to connect those two things.

## Labor market forces outside of gen AI

**Kweilin Ellingrud:** As we look over time, about 9 or 10 percent of the jobs every decade are net new occupations that didn't exist before. That could be in advanced analytics, renewable energy, as we were just describing, or a social media influencer.

How do we think about these new jobs and the skills that they will need? Those new jobs, at least historically, have typically been more male-dominated than female-dominated, but how do we build the skills that we'll need in the future both for the jobs we know we will need but also for the net new occupations that we haven't even imagined yet?

**Roberta Fusaro:** Are there any other forces cited in the report that we haven't raised that could affect the labor market in the next two to five years?

**Saurabh Sanghvi:** Some of the other factors that could impact the labor market are, one, we have an aging workforce. That will have an impact on everything as it relates to retirement and the fact that we've seen quit rates at an all-time high over the past two years. We'll see an impact on demand for healthcare in the US as well.

Another finding that was probably my favorite of this report is that, over the past three years, we've seen 50 percent more occupational transitions than the previous three years. This is really positive news in my mind, because we're seeing the occupation transitions result in workers disproportionately being in higher-wage roles.

If we could continue that trend over the next decade and through 2030, then we could be in a world

where some of the disruptions that we're talking about end up being really positive and help workers get into higher-wage roles and opportunities for more fulfilling careers. And for the first time ever, we have real, hard evidence that it's happening and at a scale that's faster than what we've previously seen.

**Kweilin Ellingrud:** One other element in terms of our workforce is that immigration has been quite low for an extended period. As we combine the higher quit rates with early retirements due to health and other concerns, and then lower immigration—all of these things exacerbating the talent shortage that we were describing earlier—when you combine it all together, it's a very challenging job market for employers more so than for employees.

## Surprising findings

**Roberta Fusaro:** For both of you, Kweilin and Saurabh, what was the most surprising finding from this research?

**Kweilin Ellingrud:** The finding that shocked me most was that people in lower-wage jobs, below \$38,000 a year, were 14 times more likely to need to transition occupations than those in the highest-wage jobs. I thought that it would be more egalitarian in the impact of automation and generative AI. I knew it would have a bit of a disproportionate effect. But 14 times was really quite stunning to me.

**Roberta Fusaro:** Definitely. Saurabh, any surprising finding on your end?

**Saurabh Sanghvi:** As Kweilin mentioned earlier, our overall automation number in the midpoint scenario went from 21 percent of activities being able to be automated to 29 percent of activities being able to be automated. But one of the really surprising parts that's not been covered is the number before gen AI was 21 percent.

That 21 percent is having an impact on our findings more than some of the recent increase from generative AI. When we think about other technologies like robotics and kiosks coming into the fast-food sector, a lot of those technologies are having more of an impact on a lot of these

sectors. But we also need to be thinking about the implications of all the other technologies too.

### On the bright side

**Roberta Fusaro:** If there were one message or sort of one silver lining that you could share with our listeners, what would that be?

**Kweilin Ellingrud:** Looking at the upside, looking at the increasing number of jobs, higher wages over time, yes, there are a lot of occupational switches that we'll need to transition through, a lot of upskilling and reskilling at scale. But the GDP growth, the upside is that more jobs at higher wages gives me a lot of comfort that there's a better future as we get through that tumultuous and challenging transition period.

**Saurabh Sanghvi:** All too often, as we talk about AI and generative AI, we jump to the conclusion of job loss. One of the findings from our report is that it's much more a story of augmentation. To highlight that, if we take the role of teachers, for example, they are some of our most overworked workers today in the country.

If you look at all the activities that teachers are working on, there are a number of things that they're doing that are not student-facing, that are just administrative. The huge kind of potential for this technology is, how can we help augment professions and help free up time so that it can then be repurposed? In the case of a teacher, it

would allow them to spend more time directly with students to help improve student outcomes. That's just one example, but it has a lot of analogs in other professions.

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**Lucia Rahilly:** If gen AI frees up lots of your time, would you think about a life overhaul? Here's Joanne Lipman, author of *Next! The Power of Reinvention in Life and Work*.

**Joanne Lipman:** These four steps, or four S's, I call them the reinvention road map: search, struggle, stop, solution.

The first step, the search, is fascinating because this is when you are collecting information and experiences. This is the stuff that is going to take you to your transition, your reinvention, but you don't know it at the time. For career people, it could be a side hustle, a random interest, something you like to read about, or a hobby.

The second step is the struggle. The struggle is where you have disconnected or you're starting to disconnect from that previous identity, but you have not figured out where you are going. When we tell these reinvention stories about people who've had these amazing transformations, we tend to skip over this part, but this is where all the important work gets done. The struggle often doesn't end until you hit a stop.

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–Saurabh Sanghvi

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That's the third step: the stop. The stop might be something that you initiate. For example, I quit my job, right? But that may be something that is imposed on you. So for example, it could be you lose your job, or it could be a trauma, like a divorce or an illness in the family, a pandemic. Whatever it is, it stops you in your tracks, and only then are you really able to synthesize all of these experiences.

It all coalesces into what leads you to your solution, which is the final reinvention step. Even the people who had the most extreme reinventions, they don't see it as a reinvention. People just see it as sort of an extreme of themselves.

James Patterson is the biggest-selling novelist of all time, most financially successful. I first met him more than 30 years ago. As a young *Wall Street Journal* reporter, I covered the advertising business. He was working at J. Walter Thompson and ran the Burger King account. I show up early in the morning and he's like, "Oh, I've been up for hours already because what I really want to do is be a novelist." I'm thinking to myself, good thing the guy has a day job.

He went through all four of those steps. The search was when he was writing and trying to find his voice while he was still an ad executive. The struggle was when he started publishing books and they began getting better. He had been brought up to have and keep a job. (And, you know, writing is not a career.) So he was very nervous. He wasn't sure if he was good enough, but then his stop came. He'd already published almost ten books at this point.

He can tell you exactly the moment the "stop" happened. He was coming back from the beach and was stuck in standstill traffic on the New Jersey Turnpike. He was watching cars on the other side going back to the beach and he said, "I am on the wrong side of the road. My job is to get to the other side of the road where I get to go to the beach on a Sunday." He went back and subsequently quit to become a full-time novelist, which turned out to be a very good idea.

Generally, these moments are unique to every one of us. You get married or lose your job, or you move. There are a couple of strategies for success, but there are a few things that you want to avoid. One of the bigger mistakes I was surprised to find was people quitting too soon.

The right way to fail is to do this iteratively. But there are two really important myths. The Cinderella myth is the idea that transformation is abrupt and instant. We tell these stories, and they sound amazing. We don't ever talk about the in-between struggle. But there's nothing wrong with you, and not only that, you're actually moving forward, and this is an incredibly important part of the transformation process.

The second myth that I think is incredibly damaging is this idea that you have to have an absolute plan of where you want to go. That is very good advice if you really know you want to be an oral surgeon. But for so many of the people I interviewed, it was the reverse. They didn't know where they were going. They had no idea. They don't have that end goal in mind, but they were open to exploring and allowing to seep in what a future might look like.

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