



Opinion The jobs artificial intelligence will most likely replace

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According to some dire and sensational headlines, many people will likely soon find themselves in the unemployment line, while a relative of a Roomba moves in to their office, taking over their old job.

Few topics have created so much fear, uncertainty and doubt in the workplace as recent developments in robotics and artificial intelligence. As people welcome Siri, Alexa and Google Assistant into their homes and personal lives, they are beginning to wonder if the same technology that answers their questions and assists them in their day-to-day lives could soon replace them in the office and on the factory floor, doing the same work they did – but better, faster, cheaper, 24/7/365.

Should you be worried? Probably not.





Earlier this year, the Center for Leadership Insight at Russell Reynolds Associates set out to examine how management, finance and administrative workers spend their time at work. Looking at data on 103 different jobs, we classified a total of 1,880 tasks (the specific activities these workers undertake) based on the likelihood that each task would be replaced or disrupted by AI.

We then looked at all the tasks associated with each of the 103 job, and categorized each job as likely to be replaced by AI in the near future, augmented or redesigned to better leverage technology, or remain essentially the same as it is today.

For a small number of the 1,880 tasks, the analysis was simple: A technological substitute already exists, even if it isn't yet widely adopted. Think about bank ATMs and mobile deposits and their impact on bankers, self-checkout lines and their impact on retail workers, etc.

For most tasks, however, the future is less clear. We had to estimate the likelihood of technological disruption, given what we know both about emerging technology and the job task. We quickly realized that two criteria emerged as critical to understanding the impact of AI on these tasks:

Does the job task require human interaction?

Does the job task require the application of judgment?

A job task that answers “no” to both of those questions is at a high risk of being replaced by AI. One that answers yes to one but not both is ripe for disruption or augmentation. And one that answers yes to both – the task requires both human interaction and the application of judgment simultaneously – is safely in the hands of humans for the foreseeable future. We call these tasks, and the jobs that are comprised by them, “Uniquely Human.”

What did we find in our analysis?

Surprisingly, despite dire headlines and widespread hand wringing, most jobs won't be replaced by technology outright. But most jobs will see themselves significantly redefined and redesigned in the near future to focus the human worker on what they do best, and partner those workers with technology that can take over routine, tedious, and otherwise transactional activities. In the end, humans won't be out of work, but they will get out of doing isolated, mindless tasks so they can focus on higher-value activities and improved productivity.

Imagine how our workplaces – and our world – will transform:

In your local hospital, a surgeon is performing an operation on a patient, holding the scalpel and making all the decisions and incisions, but while wearing a special pair of glasses. The glasses transmit what he sees to a computer in the cloud, where a piece of artificial intelligence software, leveraging machine vision, analyzes the doctor's approach, comparing his work to hundreds of thousands of other surgeries that it has observed, and making suggestions to the surgeon if a different approach would offer a statistically better outcome for the patient. The human doctor remains the point of contact for the patient – spending time with them before the surgery to prepare them, and after the surgery to talk about recovery and next steps.

Across town, in a manufacturing plant, humans and AI-driven collaborative robots (“cobots”) work side by side on the production line. The robots manufacture standard products according to a detailed specification, and use machine vision for quality

control. But humans work right alongside them, taking on tasks that require modification or customization, and – perhaps most importantly – overseeing the robots themselves: Setting them up, supervising their work, and making modifications to the programs when product specifications change.

And in a classroom down the street, students learn and master new knowledge and skills. The students work through problem sets on a tablet on their desk, and the computer adjusts the complexity of the work based on their growing (or stalled) abilities. The teacher uses real-time automated reports to gauge student learning across the classroom, and provide more extensive hands-on support to the students who need it the most, while also allowing advanced students to move ahead of their peers in the curriculum.

We're not heading to a future of mass unemployment, or one where everyone lives a life of leisure while robots toil away. The real future of our economy is humans doing what humans do best, and technology augmenting their work to help them reach peak performance.



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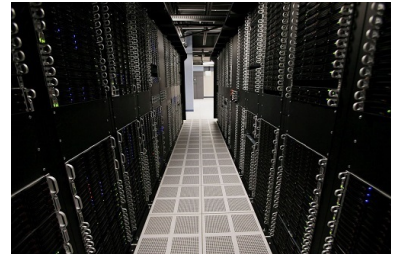
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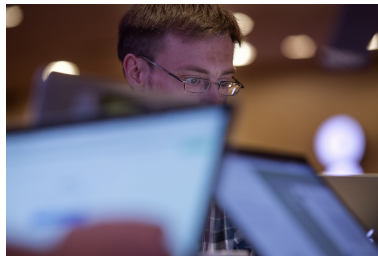
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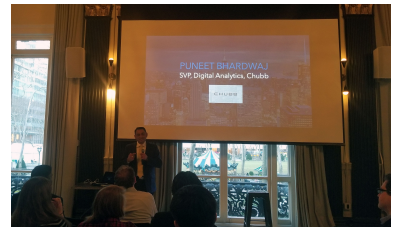
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