

# The Robots Are Coming — Will Your Job Be Next?

With advancing automation, reconsider what robots have to offer.

I recently delivered the keynote address at an education conference at which I spoke about the changing face of American industry. There is a need to rapidly adapt the workforce for an exciting and interesting future brought about by continued advancements in industrial automation and robotics.

Following the speech, I was approached by a woman who told me she really enjoyed what I had to say. Following some pleasantries she got down to business. “I just can’t help but worry though,” she confided, “about what happens to all the poor people whose jobs are replaced by robots.” She is not alone.

While I firmly believe that automation will increase—not decrease—opportunities for industrial employment, my reasoning is not easily articulated and thus I usually end up leaving the listener less than convinced. Perhaps prospectively I’ll direct the poser of the question to this article.

## Will Robots Kill Industrial Employment?

In the mid-1980s I wrote a piece on the adoption of computer-aided and automated manufacturing. When I inquired of one of my sources the degree to which factory automation would increase unemployment, he shared the buggy whip analogy with me, a lesson that has stuck ever since. In the late 1800s, with the advent of the automobile, people are said to have lamented the doom that would beset the unfortunate plants that assembled horse buggy whips. What with the precipitous decline in people purchasing buggy whips, those who made them would soon be unemployed, thus increasing unemployment. More than a century of hindsight exposes the folly of this view as one considers the numerous jobs created by the automotive industry. Innovation does *not* necessarily mean a reduction in total employment.

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## When Companies Automate, They Hire More

A few years ago, Amazon opened up a huge fulfillment center not far from where I live, flush with robots storing, picking and packaging inventory destined for Amazon customers. Amazon, according to one report, doubled the number of robots employed in its operations to 45,000 in 2016 alone.

It would follow that this adoption of automation would have a devastating impact on the jobs at Amazon, right?

Let us not be lulled into the misconception that industrial employment is a zero-sum game; that a finite number of jobs exist in industry and for every one job replaced by a robot an industrial job disappears.

As exemplified by Amazon, efficiency and accuracy-driven growth created by the adoption of automation create, as

opposed to eliminate, jobs. And Amazon is just one example.

In spite of rapid adaptation of automation, the U.S. unemployment rate currently sits at a 10-year low and industrial employers struggle to fill their ranks with qualified team members.

## Your New Job Will Be Better than Your Old One

While automation will have a positive effect on employment, it would be naïve to believe that considerable disruption to individual jobs will not happen as a result. A worker with few skills and little ambition to adapt has cause for worry if they wish to stay employed in industry. For those who choose to grow, however, a better life awaits.

For more than 30 years, a relative of mine worked on an assembly line that manufactured household batteries. Sixty... Thousand... Hours watching batteries go by on an assembly line. Factory automation and robotics replaced her job some years ago. There is virtue in any work, but automation replaces less interesting industrial jobs with opportunities in more fascinating disciplines such as factory automation, robotic programming, troubleshooting and data analysis. What’s more, work that jeopardizes the safety of the worker can also be replaced by automation leading to safer overall working conditions for those employed in industry. Advancing automation means more interesting and safer jobs.

## Automation Lowers Costs, Improves Standards

Industries automate in order to produce products faster, with fewer defects and lower cost. Who ultimately benefits?

The consumer.

An iPhone would be prohibitively expensive for all but the wealthy few if machined without an automated machining center, the IC chips manufactured manually and so on. Thanks to automation, a wider number of people benefit from lower cost and more reliable products.

Automation may change your job, but it won’t eliminate industrial employment. Rather, the jobs it creates will be more interesting, less monotonous, safer, more rewarding and the purchasing power of wages earned in these new jobs will go even further. All thanks to automation. ■■



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