Will robots and AI take your job? The economic and political consequences of automation

Darrell M. West Wednesday, April 18, 2018

Editor's Note:


Edward Bellamy’s classic Looking Backward, the protagonist Julian West wakes from a 113-year slumber and finds the United States in 2000 has changed dramatically from 1887. People stop working at age forty-five and devote their lives to mentoring other people and engaging in volunteer work that benefits the overall community. There are short work weeks for employees, and everyone receives full benefits, food, and housing.[1]

The reason is that new technologies of the period have enabled people to be very productive while working part-time. Businesses do not need large numbers of employees, so individuals can devote most of their waking hours to hobbies, volunteering, and community service. In conjunction with periodic work stints, they have time to pursue new skills and personal identities that are independent of their jobs.

In the current era, developed countries may be on the verge of a similar transition. Robotics and machine learning have improved productivity and enhanced the economies of many nations. Artificial intelligence (AI) has advanced into finance, transportation, defense, and energy management. The internet of things (IoT) is facilitated by high-speed networks and remote sensors to connect people and businesses. In all of this, there is a possibility of a new era that could improve the lives of many people.[2]

Yet amid these possible benefits, there is widespread fear that robots and AI will take jobs and throw millions of people into poverty. A Pew Research Center study asked 1,896 experts about the impact of emerging technologies and found
“half of these experts (48 percent) envision a future in which robots and digital agents [will] have displaced significant numbers of both blue- and white-collar workers—with many expressing concern that this will lead to vast increases in income inequality, masses of people who are effectively unemployable, and breakdowns in the social order.”[3]

These fears have been echoed by detailed analyses showing anywhere from a 14 to 54 percent automation impact on jobs. For example, a Bruegel analysis found that “54% of EU jobs [are] at risk of computerization.”[4] Using European data, they argue that job losses are likely to be significant and people should prepare for large-scale disruption.

Meanwhile, Oxford University researchers Carl Frey and Michael Osborne claim that technology will transform many sectors of life. They studied 702 occupational groupings and found that “47 percent of U.S. workers have a high probability of seeing their jobs automated over the next 20 years.”[5]

A McKinsey Global Institute analysis of 750 jobs concluded that “45% of paid activities could be automated using ‘currently demonstrated technologies’ and . . . 60% of occupations could have 30% or more of their processes automated.”[6] A more recent McKinsey report, “Jobs Lost, Jobs Gained,” found that 30 percent of “work activities” could be automated by 2030 and up to 375 million workers worldwide could be affected by emerging technologies.[7]

Researchers at the Organization for Economic Cooperation and Development (OECD) focused on “tasks” as opposed to “jobs” and found fewer job losses. Using task-related data from 32 OECD countries, they estimated that 14 percent of jobs are highly automatable and another 32 have a significant risk of automation. Although their job loss estimates are below those of other experts, they concluded that “low qualified workers are likely to bear the brunt of the adjustment costs as the automatability of their jobs is higher compared to highly qualified workers.”[8]

While some dispute the dire predictions on grounds new positions will be created to
offset the job losses, the fact that all these major studies report significant workforce disruptions should be taken seriously. If the employment impact falls at the 38 percent mean of these forecasts, Western democracies likely could resort to authoritarianism as happened in some countries during the Great Depression of the 1930s in order to keep their restive populations in check. If that happened, wealthy elites would require armed guards, security details, and gated communities to protect themselves, as is the case in poor countries today with high income inequality. The United States would look like Syria or Iraq, with armed bands of young men with few employment prospects other than war, violence, or theft.

Yet even if the job ramifications lie more at the low end of disruption, the political consequences still will be severe. Relatively small increases in unemployment or underemployment have an outsized political impact. We saw that a decade ago when 10 percent unemployment during the Great Recession spawned the Tea party and eventually helped to make Donald Trump president.

With some workforce disruption virtually guaranteed by trends already underway, it is safe to predict American politics will be chaotic and turbulent during the coming decades. As innovation accelerates and public anxiety intensifies, right-wing and left-wing populists will jockey for voter support. Government control could gyrate between very conservative and very liberal leaders as each side blames a different set of scapegoats for economic outcomes voters don’t like. The calm and predictable politics of the post-World War II era likely will become a distant memory as the American system moves toward Trumpism on steroids.


Susceptible Are Jobs to Computerisation?” Oxford University paper, September 17, 2013.

