

The rise of the robots

By Robert Skidelsky

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What impact will automation – the so-called “rise of the robots” – have on wages and employment over the coming decades? Nowadays, this question crops up whenever unemployment rises.

In the early nineteenth century, David Ricardo considered the possibility that machines would replace labor; Karl Marx followed him. Around the same time, the Luddites smashed the textile machinery that they saw as taking their jobs.

Then the fear of machines died away. New jobs – at higher wages, in easier conditions, and for more people – were soon created and readily found. But that does not mean that the initial fear was wrong. On the contrary, it must be right in the very long run: sooner or later, we will run out of jobs.

For some countries, this long-run prospect might be uncomfortably close. So, what are people to do if machines can do all (or most of) their work?

Recently, automation in manufacturing has expanded even to areas where labor has been relatively cheap. In 2011, Chinese companies spent ¥8 billion (\$1.3 billion) on industrial robots. Foxconn, which build iPads for Apple, hopes to have their first fully automated plant in operation sometime in the next 5-10 years.

Now the substitution of capital for labor is moving beyond manufacturing. The most mundane example is one you will see in every supermarket: checkout staff replaced by a single employee monitoring a bank of self-service machines. (Though perhaps this is not automation proper – the supermarket has just shifted some of the work of shopping onto the customer.)

For those who dread the threat that automation poses to low-skilled labor, a ready answer is to train people for better jobs. But technological progress is now eating up the better jobs, too. A wide range of jobs that we now think of as skilled, secure, and irreducibly *human* may be the next casualties of technological change.

As a recent article in the *Financial Times* points out, in two areas notoriously immune to productivity increases, education and health care, technology is already reducing the demand for skilled labor. Translation, data analysis, legal research – a whole range of high-skilled jobs may wither away. So, what will the new generation of workers be trained for?

Optimists airily assert that “many new types of job will be created.” They ask us to think of the lead drivers of multi-car road trains (once our electric cars join up “convoy-style”), big data analysts, or robot mechanics. That does not sound like too many new jobs to me.

Imagine a handful of technicians replacing a fleet of taxi drivers and truckers, a small cadre of human mechanics maintaining a full robot workforce, or a single data analyst and his software replacing a bank of quantitative researchers. What produces value in such an economy will no longer be wage labor.

We can see hints of that future now. Twitter, the social-media giant, is an employment minnow. It is valued at \$9 billion, but employs just 400 people worldwide – about as many as a medium-size carpet factory in Kidderminster.

It is not true that automation has caused the rise of unemployment since 2008. What is noticeable, though, is that structural unemployment – the unemployment that remains even after economies have recovered

– has been on an upward trend over the last 25 years. We are finding it increasingly difficult to keep unemployment down.

Indeed, the days when we in Britain thought it was normal to have an unemployment rate of 2% have long since passed. It was considered a great achievement of the last government that it brought unemployment *down* to 5% at the height of an unsustainable boom. And it only succeeded in doing so by subsidizing a lot of unnecessary jobs and useless training schemes.

No doubt some of the claims made for robots replacing human labor will prove as far-fetched now as they have in the past. But it is hard to resist the conclusion that “technological unemployment,” as John Maynard Keynes called it, will continue to rise, as more and more people become redundant.

The optimist may reply that the pessimist’s imagination is too weak to envisage the full range of wonderful new job possibilities that automation is opening up. But perhaps the optimist’s imagination is too weak to imagine a different trajectory – toward a world in which people enjoy the fruits of automation as leisure rather than as additional income.

During the Industrial Revolution, working hours increased by 20% as factories replaced feasting. With our post-machine standard of living, we can afford to shed some of the Puritan guilt that has, for centuries, kept our noses to the grindstone.

Today we find a great deal of work-sharing in poor countries. It is the accepted means of making a limited amount of available work go around. Economists call it “disguised unemployment.”

If escape from poverty is the goal, disguised unemployment is a bad thing. But if machines have already engineered the escape from poverty, then work-sharing is a sensible way of “spreading the work” that still has to be done by human labor.

If one machine can cut necessary human labor by half, why make half of the workforce redundant, rather than employing the same number for half the time? Why not take advantage of automation to reduce the average working week from 40 hours to 30, and then to 20, and then to ten, with each diminishing block of labor time counting as a full time job? This would be possible if the gains from automation were not mostly seized by the rich and powerful, but were distributed fairly instead.

Rather than try to repel the advance of the machine, which is all that the Luddites could imagine, we should prepare for a future of more leisure, which automation makes possible. But, to do that, we first need a revolution in social thinking.

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