



MILKEN INSTITUTE

The Power of Ideas

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Insights for Building
Meaningful Lives

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Innovating a More Equitable Future

As globalization marches on, a couple of phenomena have widely been observed. First, that the rapid rate of technological innovation—exemplified theoretically by the notion that computing power doubles every 18 months—is reshaping our economy one disruption at a time. Second, that while trade has brought entire economies and nations together, global inequities among individuals have driven us farther apart than ever.

Many firmly suspect it is these two forces that are behind the seemingly unpredictable characteristics of our times: from the heady optimism we feel about the future of the sharing economy and the green economy, to the confusing and oftentimes alarming rise of populism, protectionism, and reactionary nationalism.

The nexus of the rapid rate of technological innovation and global inequity is where our world will face its most problematic question yet.

Already, technology has disrupted millions of

manufacturing and service sector jobs, with 47 percent of jobs in the United States and 77 percent in China at risk of automation, against a 57 percent average across OECD countries. The World Economic Forum has projected that as many as five million jobs could be displaced by automation by as early as 2020.

Luminaries like Stephen Hawking have warned of the various perils associated with Artificial Intelligence (AI)—not least AI’s contribution to job elimination and its potential to wreak havoc on the global economy. Foxconn, the world’s maker of iPhones, recently began replacing 60,000 workers with robots, according to CLSA. China leads the world in adoption of industrial robots, purchasing 160,000 in 2016, compared to 57,000 in 2014, a 180 percent jump. And with the advent of driverless cars, we can expect more casualties—at least 3.5 million professional truck drivers in the U.S. alone are at risk of losing their jobs.

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The problem isn't technology displacing jobs. Indeed, far from being a Luddite, I am a firm believer of technology's promise of a new global economy. In fact, there are more employed today in the manufacture of smartphones than those who produced the antediluvian technologies that preceded it. Innovations in clean energy are causing solar and wind to create jobs 12 times faster than the rest of the U.S. economy.

What worries me is the unprecedented speed that AI and machine learning have lent to the pace of technological development, so much so that public policy—and indeed society at large—struggles to keep up with the ethical, economic, and political consequences of such disruptions. For at the heart of this conundrum is not job loss, but an even more underlying issue: global inequality.

For whom do we innovate? Innovation does not affect us all equally—it privileges certain groups more than others; it fashions winners and losers as it perfects

its processes. Unlike previous economic and political change, the coming technological revolution is not aimed at the heads of the ruling elite but, if left unchecked, may exist solely in the service of wealth accumulation by the global one percent in a dystopian, near future.

Automation and AI creates cost efficiencies in the service of profit, but only at the expense of human labor. This phenomenon is not isolated in manufacturing and industry alone, but is also true in the service sectors as well. Indeed, while rideshare apps are hailed as the answer to congestion and pollution, they also raise serious questions about decent wages, as drivers are forced to earn less than minimum wage under the vagaries of an algorithm. We city commuters may find these apps to be a godsend, but laborers with less access to privilege may have taken an unfair bargain, driving us around town for our convenience because they felt like they had no choice.

The future is not so bleak. We need to drive public policy innovations to keep up with technology. A tax on automation has been proposed by some members of the EU, supported by the foremost of tech pioneers, Bill Gates. While the policy and its considerations is complex, the core question is fairly straightforward: If labor is taxed on human workers,

then why not tax automated labor just the same?

The proposal makes sense: funds freed up from cost efficiencies can be devoted to expanding public fiscal space to help at-risk workers with retraining, upskilling, and re-entry into more meaningful jobs, perhaps in the form of conditional basic income (an experiment Ontario is currently conducting). Redirecting these savings towards reinvestments in people may address wealth inequality in its most rapid and worst forms. Taxation, as dreaded a word as it is, can perhaps help us let technological innovation continue while staving off the most harmful of its effects.

I fear a world where the global wealth gap is exacerbated by the very technological advances we have longed for. For many, these advances are considered as saviors. I fear a world where enormous wealth can be created with less and less labor.

We need bold and innovative public policy to address these ethical, economic, and political questions on labor and equality. If we do not act, our greatest fears could be realized; and many will not experience the virtual hand of prosperity, but instead a robotic grip of inequality—bringing economic desolation and social unrest along with it.