OPENERS

WHAT'S THE POINT OF MACHINES? More than anything, of course, it's to replace work, and people have long envisioned a world in which labor-saving devices save more than just a little bit of labor. Novelists have often waxed utopian—consider Edward Bellamy's 1888 socialist bestseller *Looking Backward: 2000-1887*, which imagined an age of post-scarcity leisure, with short working hours and universal retirement at age 45.

The novel that springs to my mind, though, is Kurt Vonnegut's 1952 black comedy *Player Piano*, inspired by the author's stint working at automation-happy postwar General Electric. Vonnegut describes a United States in which manufacturing is so industrialized that only a handful of managers (elevated because of high IQ scores) oversee warehouses full of machines, and the bulk of the population must choose whether to waste their working years in the bloated military or in the massive infrastructure corps. Everyone's basic needs, as consumers and citizens, are taken care of, yet their lives are devoid of purpose. "What are people *for*?" asks a foreign visitor, shaken by the dehumanized efficiency. *Player Piano* is actually a riotously funny novel, but as the years go on, it grows ever more eerily prescient.

Except for one element: Vonnegut's dystopian vision is socialistic—society is wealthy and productive enough that citizens, their meaningful labor replaced by machines, report for work out of obligation and boredom rather than necessity. In this issue of *TCB Review*, "Where Will the Jobs Go?", adapted from Jaron Lanier's book *Who Owns the Future*?, conjures a more realistic near-term future, a scenario with which literature has largely failed to grapple: technology replacing both blue- and white-collar jobs en masse, leaving people with not only no purpose but, absent central planning and a sturdy safety net, no economic future.

Something has always come along to replace vanished industries, we're reassured, and something is sure to emerge from Apple or some Kickstarter-funded startup that will unleash a deluge of meaningful employment for all of us. And it's possible—Lanier himself declares himself "optimistic" that systems, given encouragement, will arise to broadly distribute wealth and income throughout society.

But the trend seems more ominous than, say, the offshoring fears that drove a 2004 cover story I wrote for this magazine headlined "Will We All Be Unemployed?" It's one thing to fret about jobs lost to overseas workers, as everyone did a decade ago, and another to worry about jobs disappearing, full stop. Driverless cars and 3D printers could wipe out entire classes of global employment, along with a huge percentage of customers for all kinds of products and services. We're facing an Industrial Revolution-scale upheaval.

Bottom line: It's no longer nearly enough to extol the virtues of entrepreneurial thinking and K-12 science education. We need to begin thinking much more broadly about our economic future and the role that corporations, as well as government, can play in creating a rewarding society for everyone, not only those fortunate enough to someday own fleets of driverless cars. That's a start.



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