

BOOKS

Economists Being Economists

DANIEL SAREWITZ

In early nineteenth-century England, bands of men known as Luddites went about smashing the automatic knitting machines that had taken their jobs. The novelist Thomas Pynchon described the situation in a 1984 essay titled “Is It OK to Be a Luddite?”: “The knitting machines which provoked the first Luddite disturbances had been putting people out of work for well over two centuries. Everybody saw this happening—it became part of daily life. They also saw the machines coming more and more to be the property of men who did not work, only owned and hired. It took no German philosopher, then or later, to point out what this did, had been doing, to wages and jobs.”

Today, rising economic inequality is a hot topic of political debate in the United States, and economists, rather than German philosophers, are paying attention to the effects of automation on jobs and wages. In this vein, *Power and Progress*, by Massachusetts Institute of Technology professor Daron Acemoglu and his MIT colleague and former International Monetary Fund chief economist Simon Johnson, spends hundreds of pages trying to say what Pynchon says in several hundred words. It’s a sweeping, big-theory-of-history book—“Our 1,000-Year Struggle Over Technology and Prosperity,” as the subtitle says.

According to *Power and Progress*, it all started, like the Bible, with a fall from grace. In the beginning, your

Our 1000-Year Struggle Over
Technology & Prosperity

POWER AND PROGRESS

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Power and Progress: Our Thousand-Year Struggle Over Technology and Prosperity

by Daron Acemoglu and Simon Johnson.
New York, NY: PublicAffairs, 2023, 560 pp.

average hunter-gatherer lived a happy life foraging a few hours a day, doing the work of one person. But the apple of innovation changed all that by magnifying what one person could do, first through organized agriculture, then through water- and wind- and horse-powered machines, and so on. Now, powerful men, pharaohs, emperors, and the like could create untold wealth for themselves by extracting the results of all this additional work-per-person from the masses that they controlled.

Productivity was the original sin.

If you want a theory that accounts for 1,000 (or, actually, 10,000) years of inequality, you’ll need an independent variable, an underlying causal driver. For a minute I thought that, in assigning this role to productivity, the authors were onto something weird enough to be interesting. Certainly, the cult of productivity—whose members are mostly economists and their confederates in tech and finance who want to explain why destroying jobs in the name of greater productivity is actually to everyone’s benefit—is well worth taking down.

But the book’s argument hinges on replacing one variable with another. As Acemoglu and Johnson explain, in competitive labor markets, wages are determined not by increased productivity (output per worker), but by marginal productivity of labor—that is, the increased productivity created by additional workers. According to the authors, this distinction is one that many economists and economics textbooks fail to make.

“All of this brings home perhaps the most important thing about technology: *choice*” (their italics). As they explain it, “Technology has increased inequality largely because of the choices that companies and other powerful actors have made.” For a better world, the men who do not work, only own and hire—as Pynchon termed them—should not choose automation that increases productivity and profitability while eliminating jobs. Instead, they must choose to invest in “worker friendly technologies”—automation that increases the marginal productivity of labor and protects, creates, and expands well-paying jobs.

So why don't they? Because we are persuaded by the "blind techno-optimism" which has us believing that the productivity growth that maximizes corporate profits also automatically delivers more and better jobs. (Whoever "we" are—I use the first-person plural here because that's what the authors insist on, from the book's first sentence. Presumably they aren't referring to themselves.)

It has long been thus. Acemoglu and Johnson are very impressed with the "power to persuade" that some men have had. Starting in the eighteenth century, "what comes clearly into view is how those who stood to gain got their way by linking arguments for their preferred technology choice with what they claimed to be the common good." Take Ferdinand de Lesseps, the nineteenth-century French diplomat and developer of the Suez Canal, who also made an early and unsuccessful attempt to build a Panama Canal. How did he mobilize the resources necessary for these canals? "Lesseps had the power to persuade." Who did he need to persuade? The politicians and investors who had something to gain from his "version of technological optimism." To serve their interests, tens of thousands were consigned to brutal, deadly regimes of coerced labor in building the canals.

But it was just a choice: "None of this was inevitable."

On late seventeenth-century agricultural innovation and the immiseration of the rural populations in England: "None of this was inevitable." On the rapid expansion of job-creating industries after World War II: "It would be incorrect to think that postwar technology was preordained." On the destruction of jobs and livelihoods through automation and artificial intelligence today: "None of this had to be the case."

To say that a particular social and economic arrangement of technology at a particular time was not inevitable is a truism if there ever was one. But

it does not mean that any particular alternative arrangement was plausible, or that, starting from the present, a particular future arrangement can be "chosen." To say that "choice" is "the most important thing about technology," without confronting the meaning of "choice" itself, is to say nothing at all. In 400 pages.

If "choice" really were "the most important thing about technology," you'd think the authors would draw on at least some of the voluminous research and writing about social, political, and institutional choice; about how firms innovate and adopt technology; about how cultures, governments, and social movements help to shape it, and are shaped by it. But the reader will search in vain for the influence of the likes of James Madison, John Dewey, Herbert Simon, James March, Mary Douglas, Kenneth Arrow, Christopher Freeman, Richard Nelson, Lewis Mumford, Sheila Jasanoff, Thomas Hughes, and so forth. Above all, you'd think the authors would appreciate that, at the scales that influence wage structure, there is no "choice" in any conventional sense of the word. Rather, technological regimes emerge within complex, contingent arrays of institutions, actors, interests, incentives, and beliefs, further nested within powerfully constraining historical and cultural contexts.

And indeed, while the book promises a grand theory about democratic choice, technological change, and economic inequality, by its end this promise has dissipated in a cloud of caveats and counterexamples. Of the early Industrial Revolution in England (but it might as well be today), the authors are content with more truisms: "Because workers were not organized and lacked political power, employers could get away with paying low wages." Where's the choice in that? As the later chapters move through the twentieth century to the current era of robot- and AI-enhanced wage inequality, the authors acknowledge, time and again, that institutions, politics, and culture are always constraining

future technological pathways. Thus, "worker-friendly technologies" turn out to be a consequence of tight labor markets and politically empowered workers. They are adopted when firms actually have *no* choice but to provide good salaries and strong job protections.

Ignoring relevant scholarship undermines other key elements of *Power and Progress*. Critiques of technology run through the book, but Acemoglu and Johnson fail to draw on a century of thinking and writing about the downsides of technological change. Perhaps more surprising are the discussions of how periodic spasms of innovation across many interdependent industries (such as steel and railroads) led to rapidly increasing demand for labor and rising wages. These discussions seem entirely uninformed by the rich historical scholarship of innovation economists working in the tradition of Joseph Schumpeter—who is, incredibly, unmentioned and uncited here.

As I write, United Auto Workers union members have just concluded a successful strike against American automakers, a reminder that hard political battles, not technological choice, often lie behind better wages. But the percent of unionized American workers continues to drop, and the decline of manufacturing and the rise of the service sector and gig economy have narrowed opportunities for many workers to pursue job security and good wages. Meanwhile, decades of growing wage inequality seem to feed into populist politics in the United States and Europe. Acemoglu and Johnson start their book by explaining that "we" have all been suckered into believing that technology-created productivity growth will bring a future of more, higher-paying jobs for all. Again, who is the "we"? Disaffected workers often said to constitute the core of Donald Trump's popularity would certainly appear not to be taken in.

Cornered by their own narrative, Acemoglu and Johnson end up offering a grab-bag of policy recommendations

that have nothing to do with “technological choice,” such as breaking up big technology companies, reforming taxes to favor corporate investment in workers rather than automation, investing in worker training, and the like. Worthy and venerable stuff. But for a book that promised to provide a new theory of technology and inequality, it’s a whimper of an ending.

Why not state the obvious?

So long as the power asymmetry between corporate ownership and workers persists, the challenge of wage inequality for US workers will remain largely unsolved. My friend and colleague Ned Woodhouse, to whom I was complaining about *Power and Progress*, reminded me that the political economist Charles Lindblom nailed the problem at the end of his 1977 book *Politics and Markets*:

It has been a curious feature of democratic thought that it has not faced up to the private corporation as a peculiar organization in an ostensible democracy. Enormously large, rich in resources, the big corporations [can] insist that government meet their demands, even if those demands run counter to those of citizens.... They are on all these counts disproportionately powerful.... The large private corporation fits oddly into democratic theory. Indeed, it does not fit.

In failing to take on this fundamental contradiction, all the talk of democracy and technological choice adds up to a future that looks much like the past. The big theory boils down to: “machines coming more and more to be the property of men who did not work, only owned and hired.” Workers of the world, read something else.

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