

What would you like to know?

## Despite its obvious upsides, will artificial intelligence turn out to be a dream killer that robs many Americans of their self-esteem? ➔

**T**he unfolding of technological progress seems to be beyond our control or even our ability to predict. Former Treasury Secretary Larry Summers describes how “it was not very different to live in the United Kingdom in the late nineteenth century than it was to live in the ancient world two thousand years before. ... Then to everyone’s shock, life changed dramatically for the better.”

University of California-Berkeley economist Brad DeLong adds, “What changed after 1870 was that the most advanced North Atlantic economies had invented invention ... the technological capability and material wealth of humankind had exploded beyond previous imagining.” But in the early 2000s, the robust nature of innovation seemed to dissipate, with productivity growth rates not as strong. Now the switch is being turned on again with the artificial intelligence revolution.

If productivity rates indeed soar to levels unimaginable as many AI proponents are

suggesting, the part of America that owns stocks will enjoy an even greater bonanza while both blue- and white-collar workers experience heavy job losses.

But could this powerful new technology become a victim of its own success? Could an enormous anger be directed toward both democratic capitalism and America as average working families, even with annual guaranteed income checks in hand, feel robbed of the chance to follow their dreams? Stanford’s Francis Fukuyama offered a powerful insight when he said, “There is a very intimate relationship between economics and identity. A job is not just a source of resources. It is a source of a person’s dignity, of their self-esteem.”

Could artificial intelligence therefore end up becoming a dignity killer? Could it add to the already ferocious hate and contempt felt by many Americans toward their political leaders, toward their country, and toward themselves as they sit day after day, watching a screen, with nothing to do?

**A dozen experts—and three LLMs—respond.**



*Despite what the apostles of artificial general intelligence warn, there is no reason to think AGI will get here anytime soon, if ever.*

**ROBERT D. ATKINSON**  
*President, Information Technology and Innovation Foundation*

There is no issue more fraught with confusion than the impact of artificial intelligence on jobs. We see this in the statement we are addressing, “If productivity rates indeed soar to levels unimaginable as many AI proponents are suggesting, the part of America that owns stocks will enjoy an even greater bonanza while both blue- and white-collar workers experience heavy job losses.”

Won’t happen.

First, despite what the apostles of artificial general intelligence warn, there is no reason to think AGI will get here anytime soon, if ever. To be sure, AI is a great tool for analyzing discrete information sets (for example, drafting legal briefs), but it can’t take care of toddlers in a daycare center.

And even with much better AI, there will still be massive amounts of work left. Does anyone think that self-driving school buses will not have an adult on them to watch the kids? What about police? AI robots will not be arresting criminals. What about game wardens, models, priests, stonemasons, plumbers, legislators, and flight attendants? Most of the economy involves working with people, things, or ideas so complex that AI shows no sign of being able to perform them.

Second, AI job-doomers commit the “lump-of-labor fallacy”: the idea that there is a limited amount of work to be done, and if a job is eliminated, it’s gone for good. But this fails to account for second-order effects whereby the savings from increased productivity are recycled into the economy in the form of higher wages, higher profits, and reduced prices, that all create new demand that in turn creates other jobs—some in new occupations (like “content creator assistant”), but most in existing ones that workers will now spend their savings on (such as personal trainers). This is why most scholarly studies find no net negative effect of productivity on employment.

And the idea that these savings will all go to profits is simply wrong. If employers could, they’d pay their workers ten cents an hour and charge outrageous prices. They

don’t because of a thing called labor and product market competition. AI won’t repeal the laws of economics.

The idea that Americans will run out of things to buy is even more ludicrous. Even if by some miracle in fifty years AI boosts U.S. per capita income ten times to \$600,000 per year, Americans would rightly still want more.

Given America’s chronically slow rates of productivity growth, the significant increase in retirees, and massive government budget deficits, America has to have higher rates of productivity. If we are really lucky, AI might boost productivity from around 1.5 percent per year to 3 percent.

But if AI leaders keep scaring the pants off of people, the response will not be to put the pedal to the metal of AI-driven productivity growth. It will be to slow it all down, and Americans will pay the price.



*Benevolent public control of AI ranks near the bottom of life’s certainties. Tech oligarchs are simply too powerful, and autocracies like China and Russia have no sympathy.*

**GARY CLYDE HUFBAUER**  
*Nonresident Senior Fellow, Peterson Institute for International Economics*

Will artificial intelligence deliver sweet dreams or frightful nightmares? Celebrity commentators condition their answer on the future scope of public regulation. If AI systems are closely supervised by benevolent governments, they claim, then nightmare outcomes—an expanding roster of trillionaires, mass unemployment, artificial viruses—can be avoided.

But benevolent public control of AI ranks near the bottom of life’s certainties. Oligarchs like Sam Altman, Elon Musk, Tim Cook, and Larry Ellison are simply too powerful, and autocracies like China and Russia have no sympathy.

To honestly answer the question, commentators should assume that public regulation will be weak or non-existent. In turn, that suggests four forecasts.

First, it makes no sense for 60 percent of American high school students to enroll in traditional colleges that feature liberal arts. Instead, more students should acquire skills that require hands-on dexterity and practical application. Plumbers, electricians, auto mechanics, and nurses fit the bill, along with nearly all manufacturing jobs. AI

will not quickly duplicate these skills, but it will obliterate entry level jobs that stress the written word and basic arithmetic, such as journalism, law, accounting and countless office jobs. The stark conclusion is that most traditional colleges should change their offerings or shut down.

Second, as AI raises the returns to capital and lowers the earnings of labor, populist governments—whether left-wing or right-wing—will embrace wealth taxation. The 2 percent annual tax on billionaire wealth proposed by Gabriel Zucman may look modest ten years hence. Governments will urgently need money to strengthen safety nets for the bottom half of the population.

Third, AI will change the character of warfare. Masses of robots, drones, and submarines controlled by AI will matter more than masses of soldiers, pilots, or ships controlled by military officers. In future battles, the best AI will make a difference. The odds could thereby become more even for small opponents, exemplified by Ukraine and Taiwan.

Fourth and finally, AI seems certain to uncover a cornucopia of new pharmaceuticals, new gene therapies, and new materials. But AI will also enable the creation of novel viruses and pathogens that can destroy plant, animal, and human life. If government regulation does just one useful thing, it will prohibit those applications.



*There is already mounting evidence of the sad fate of idle GenX and GenZ youth lost in a dark, demented swamp of social media.*

**ROBERT A. MANNING**  
*Distinguished Fellow, Stimson Center*

**T**he question of what artificial intelligence will mean for the future of work—and the psychological and spiritual well-being of impacted workers—is part of the larger AI predicament: it is a historic, transformational technology; yet it holds risks from making humans irrelevant to becoming extinct.

I wouldn't bet against AI curing cancer, Parkinson's, or Alzheimer's in the next decade, nor against the possibility that it may eliminate 50 percent of entry-level white collar jobs in the next five years—as the CEOs of Anthropic and Ford have warned.

New technologies have always been disruptive, from the printing press and the loom, to electricity and the telegraph. But unlike previous innovations that unfolded over many decades, AI promises to disrupt civilization with unprecedented speed. Its own leading developers have aired fears of AI's potentially catastrophic consequences. In March 2023, xAI CEO Elon Musk, along with technology entrepreneur Steve Wozniak and dozens of AI scientists, signed an Open Letter calling for a pause in the training of more advanced AI systems, asking bluntly: "Should we develop nonhuman minds that might eventually outnumber, outsmart, obsolete, and replace us?"

Yet Big Tech continues to invest hundreds of billions to build AI at warp speed, driven by a sense that is inevitable, and fears of missing out, that its rivals or China will get there first. In the manic race, less than 3 percent of AI research is focused on AI human alignment and safety, even as AI hallucinations grow.

But the tech industry seeks to mitigate AI disruption. It is not a coincidence that the call for a Universal Basic Income emanated from Silicon Valley. AI may render humans irrelevant or marginal to the economy, but the business model of Meta, Google, and others still is based on our data.

A techno-utopian vision mirrors Aldous Huxley's dystopia in *Brave New World*: millions moving from video games to the metaverse, forming AI friendships, getting AI therapy and life coaching, paying for it with cryptocurrencies, and relying on universal basic income perhaps partly funded by tech companies.

That may be a fantasy. But already, we're seeing AI beginning to crater the professional/managerial classes. It is a dubious proposition to think that UBI-enabled excess leisure time will yield mostly poets and artists, or other benign pursuits. There is already mounting evidence of the sad fate of idle GenX and GenZ youth lost in a dark, demented swamp of social media and the vulnerability of working-age men to opioid deaths of despair. There is evidence that social media is rewiring human brains toward the impulsive, impacting reasoning and thought processes.

Most troubling is that even as the coming transformative impact of AI is in plain sight, as captains of industry warn of its consequences, the nation seems lacking in the sense of urgency needed to begin to prepare and adapt to the AI and robot-centric world approaching.

The situation demands a bold national foresight initiative, perhaps modeled on the Simpson-Bowles Commission. One idea is for the White House to create a National Commission on the Future of Work, assembling business, technologists, labor, and academe with a mandate to assess the trajectory of the economy and the job market over the coming decade and develop an action plan to re-vamp education, skills training, and the social safety net to best prepare for the disruption already beginning to unfold.



*We have a long way to go before we have to worry that we won't have any work for people.*

**DEAN BAKER**

*Senior Economist, Center for Economic and Policy Research*

America's intellectual elite are not known for deep thinking. On issues they take as having fundamental importance, the same people manage to hold completely contradictory views. The idea that AI will take all the jobs is a fantastic example.

There has been an endless stream of articles and columns in outlets like the *New York Times*, the *Washington Post*, the *Atlantic*, and other leading publications decrying the low birth rate. The big problem is that we will have a declining workforce and a growing population of retirees, leading to an impossible burden for our children. People can look very smart and get paid big bucks for pushing this story.

At the same time, we get the question posed here, what will society look like when AI takes all the jobs and there is no work for the vast majority of people. I realize this point is apparently too complicated for great minds, but these concerns are direct opposites. If one problem is real, then the other is not.

If we have a demographic problem of too few workers, then we can't also have a problem of not enough work, and vice versa. It may lead to unemployment among elite intellectuals to acknowledge this fact, but that is reality.

So, getting to the question asked here, let's first say that if we take it seriously, we should be laughing at all the people pushing the demographic disaster story. They are clueless.

It also is worth noting that the concern that huge gains in productivity will eliminate all the jobs is hardly new. Many were saying the same thing back in the 1990s internet boom. It was also a concern back in the 1950s and 1960s, where it was a theme of a major bestseller.

But let's say that we are on the verge of a major productivity upturn associated with AI, why would we assume all the money would go to the rich? That would seem to be dependent on our institutional structure. If we had robust competition in AI, and no important patent monopolies, why wouldn't the price be bid down

so that the gains mostly go to non-AI businesses and consumers?

In fact, since Chinese firms seem to have far more efficient techniques and have access to near endless supplies of low-cost clean energy, it seems likely that they will be the big winners from the industry and our giants will see their investments go belly up. This would result in a massive downward redistribution, unless we go an extreme protectionist route and end up with the Trabants of AI.

But suppose AI does produce huge productivity gains in the United States, why would we not take these benefits in the form of higher pay and more leisure, as other countries have long done with productivity gains? In Denmark, the average worker puts in just 77 percent as many hours as do workers in the United States. There is a comparable story in Germany, Netherlands, and several other European countries. Perhaps AI will allow us to have similar increases in leisure here.

If the productivity gains are high enough, we can even go further. We can have universal four-day weeks, with large amounts of annual vacation, as well as time off for paid family leave and other reasons.

In short, we have a long way to go before we have to worry that we won't have any work for people. Perhaps we will get to that point someday, but we have a long time between here and there and many important policy issues to deal with in the meantime.



*Whether individuals derive dignity from their own work is a function not of technology but of labor laws and employer practices and worker bargaining power.*

**MICHAEL LIND**

*Fellow, New America, and author, Hell to Pay: How the Suppression of Wages Is Destroying America (Portfolio, 2023)*

It is impossible for an artificial intelligence-driven productivity explosion to permanently enrich a few capitalists and permanently immiserate most workers at the same time. If radical productivity growth radically lowers prices for goods and services, profits for investors will go down, not up, once the new technology is commoditized and the market is saturated. Attempts by

would-be monopolists to keep prices artificially high are likely to be thwarted by rivals in competitive markets and also thwarted in imperfect markets by public utility regulation or public provision in response to popular demand.

Today, thanks to technological innovation, combined with public utility rate-setting and antitrust policies, electricity and water are affordable universal services—and there are no famous water and electricity tycoons in our time. In the absence of permanent rather than transitory super-profits for AI capitalists and corporations, taxing them could not finance a universal income for displaced workers.

In any event, permanent and widespread, as distinct from transitional and localized, technological unemployment is unlikely. Since the industrial revolution began, while particular industries have been destroyed, new jobs have been created, as falling prices for necessities have freed discretionary income for workers to spend on amenities, including services provided by other people.

As a result of technology-enabled productivity growth, the share of household income that an average American family spends on food fell from 38.3 percent in 1918 to 9.8 percent today. Meanwhile, according to economist David Autor and his co-authors in “New Frontiers: The Origins and Content of New Work, 1940–2018,” most employment in the United States today is in occupations that did not exist in 1940.

Today’s technology permits billionaires to cook their own food in microwave ovens, mow their own lawns, and wash their own cars in automated carwashes. Few rich people do so, because as their incomes rise most individuals outsource many personal tasks to other people, even if cheaper mechanical alternatives exist.

Similarly, as technology eliminates production and routine service jobs, some of today’s professional and personal service jobs with elite clientele, from concierge bankers to personal trainers, may multiply and become affordable for ordinary people. And no matter how advanced the technology, most people are likely to prefer that other people will care for them and their children and elderly relatives.

Whether individuals derive dignity from their own work is a function not of technology but of labor laws and employer practices and worker bargaining power. The most important tool for turning bad jobs into good ones is collective bargaining, which will always be necessary in economies in which most people must work for wages. Most individual workers lack adequate power to bargain on their own with most employers, and politicians are easily coopted by employer lobbies and capitalists. What is needed to create and maintain a middle-class majority in high-tech societies is not a universal basic income, but organized labor, in old forms or new.



*Even if displacement is more widespread than with earlier technology change, society will benefit on balance from this general-purpose technology.*

**MARJORY S. BLUMENTHAL**

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**N**otwithstanding the hype and hysteria, artificial intelligence will not doom humanity and human work. In its many forms (large language models, natural language processing, robotics, and so on), AI will contribute to changes in economic, social, and civic processes. Adjustment will be harder for some than for others, but even if displacement is more widespread than with earlier technology change, society will benefit on balance from this general-purpose technology. Experimentation will continue to surface problems with AI performance and cybersecurity, pacing adoption, but the drive to make AI work will continue to animate efforts from Kentucky to Kenya.

Innovation history shows that technology change is disruptive and marked by both known and unknown unknowns. Consider manufacturing automation: The U.S. Congress formed a commission to study its labor impacts in the 1960s and asked its Office of Technology Assessment to do so in the 1980s, when computerization compounded the concern. In both periods, the diffusion of new technology—heralded as diminishing dull, dirty, or dangerous work—took time and combined with economic growth to overwhelm job losses. In both cases, it proved easier to anticipate job displacement than job creation, either in the same settings or elsewhere. Beginning in the 1990s, the commercialization of the internet kicked off the dot.com boom. Labor outsourcing, one of many factors conflated with the effects of technology, grew concurrently and, along with the work-sapping opioid crisis, is part of the context for today’s AI. The 2000s, meanwhile, saw the rise of smartphones and apps—new applications of existing technology that spurred unanticipated entrepreneurial activities and employment, which AI will now (re)shape. This century has also seen the rise of AI-using automated vehicles, which eventually will enable many who lack good mobility options to participate more fully in society.

AI has begun to help address such pressing world problems as cancer and other diseases, food security, and aging populations, generating new work and improving

lives. Meanwhile, the quality of work can be enhanced if technologists and executives make corresponding choices. One is human-machine collaboration involving AI. It is no accident that there are growing numbers of humanoid robots as well as those that would have looked familiar in the 1980s. Humanoids by design invite collaboration with people. A more broadly applicable way to enhance work—and promote creativity—is avoiding overreliance on AI and low-quality outputs (“AI slop”). Good AI development and use practices aren’t givens, but they can be encouraged.

Writing this piece while sitting on a chair at a table holding a computer in a room in a building, I know that AI will touch aspects of what it would take to replace any of those things, but AI alone will give me none of them. Beyond assisting the displaced and facilitating new economic activities, neither easy, getting the best AI outcomes requires attending to data and cybersecurity. None of those challenges is new—and AI can help with all of them.



*I’m less worried about rising machine intelligence than about declining human intelligence. The problem of brain rot started well before ChatGPT showed up.*

**BRINK LINDSEY**

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**S**care stories about artificial intelligence are all the rage these days. Will it take all our jobs? Maybe even enslave or destroy us? For my part, I’m less worried about rising machine intelligence than I am about declining human intelligence. The clearest path to an AI-enabled dystopia that I see is one in which increased reliance on thinking machines leads to the widespread atrophy of human capabilities. This looming danger is best captured not by *The Terminator* or *The Matrix*, but rather *Idiocracy* and *WALL-E*.

The problem of brain rot started well before ChatGPT showed up. It’s been with us since television took over our living rooms. Since then, reading for pleasure has been in long-term decline and reading test scores have stagnated. The leisure time of most people has become considerably less cognitively demanding: first television anesthetized

our attention, then cable TV and channel surfing started the process of fracturing our attention and reducing our attention spans—a process that the internet and social media have ramped up to addictively distracting perfection. Most of us recognize that our capacity for mental focus isn’t what it was in the world before smartphones.

For a while our work life acted as a countervailing force. The post-industrial “information economy” greatly increased the demand for white-collar “knowledge workers”—and thus for college graduates. College, and its more rigorous demands on the intellect, transformed from an elite preserve into the central gateway into the middle class. Eventually, though, college admissions could keep growing only by lowering standards, and in recent years employers have finally caught on: the number of job openings requiring a degree is starting to fall.

Enter large language models—and the promise of more impressive AI to come. There is potential here for massive improvements in cognitive capabilities through AI tutoring: we know one-on-one instructions works best, but until now it has been impossible to scale. At present, unfortunately, the dominant uses of AI as a mass consumer product are to outsource thinking and automate companionship—uses that threaten to turn developing young minds into mush and leave their owners utterly unequipped for a productive and fulfilling life.

This is the central challenge posed by AI: how can we develop and take advantage of its amazing capabilities without wrecking our own capabilities in the process? We must remember that the purpose of tools is to empower their users, not enfeeble them.



*The introduction of computers, it was argued, would cause massive structural unemployment. That never happened.*

**MICHAEL J. BOSKIN**

*Tully M. Friedman Professor of Economics, Stanford University, and former Chair, President’s Council of Economic Advisors*

**O**pinions on what artificial intelligence will do for and to humankind range from the dystopian to the euphoric. Elon Musk says robots will become the

biggest market in human history, freeing human labor from drudgery. Larry Ellison heralds a new era in biomedical research that will cure horrific disease. And they are both putting their money where their mouth is. Former Google CEO Eric Schmidt warns that the large language models can be hacked and turned against us. Many warn that we must “win the AI race against China” or face daunting economic and national security risks. And great attention is paid to the possible labor dislocations—job losses, and social disruption as people sit at home with nothing to do but watch their smartphone or computer screens.

There seem to be two camps forming: the optimists and the pessimists, each with their own internal debates. The optimists herald remarkable productivity gains, but debate whether job losers can be successfully reallocated to other jobs. Some point to the potential for AI inferencing to be much more important than the current dash to train the LLMs. Pessimists debate whether artificial general intelligence is really achievable, especially in a short time frame, and whether diminishing returns will set in and/or job displacement concerns are overblown as AI is overhyped technology.

What we know for sure is that hundreds of billions of dollars are being spent on AI data center expansions, a huge additional demand is piling on to the electricity sector, GPU chip leader Nvidia has become the world’s most valuable company, the adoption of OpenAI’s ChatGPT (the leader, but Musk’s Grok, Meta’s LaMDA, and Google’s Gemini are also growing rapidly) is the most rapid take-up of any technology in history, and that the LLMs have issues with errors and “hallucinations.” Nations, supranational institutions like the European Union, and even individual U.S. states are debating if and how to regulate AI.

It’s sobering, not necessarily dispositive, to consider the history of breakthrough technologies. Often, what became the most widespread commercial use was not what the inventor had in mind. James Watt’s steam engine was meant to lift water out of coal mines and Watt never envisioned steam locomotives or steamships. Marconi’s transatlantic wireless transmission was to compete with the telegraph in point-to-point communication and he did not envision mass broadcast radio or cellular telephony. Usually, while new technologies have been disruptive and disintermediated some types of jobs, they have mostly been additive as labor is redeployed. The introduction of computers, it was argued, would cause massive structural unemployment. That never happened, but it did take some time for workers and firms to figure out to use them to increase productivity.

I come down, at least with what we know now, as a cautious optimist. The productivity-enhancing possibilities are real and will grow as creative entrepreneurs figure out new use cases not all obvious now. And much

displaced labor will be reallocated, albeit painfully, if we maintain flexible dynamic market economies with a light hand of government.



**ADAM GARFINKLE**  
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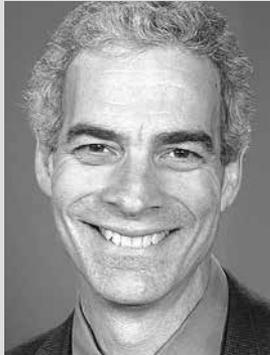
*AI is already making  
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I think the question this symposium is asking is too small. The basic situation, as I see it, is that AI is already making the machines smarter and the associated human capital dumber. Since the technology is and may well remain in the private hands of mammoth cyber-corporations like Palantir, it will come to dwarf the power and functionality of government itself. Society will come to resemble the set-up of Neal Stephenson’s *The Diamond Age*. If, under those circumstances, 5-8 percent of a highly specialized, educated workforce deploying AI-enabled robots can assure material abundance, some kind of national income scheme would be necessary to artificially create aggregate demand. Unless an extremely improbable and rapid cultural shift devalued the cultural centrality of work in people’s lives, 90 percent or more of the adult population would come to resemble, as I like to put it, Eloi with debit cards. (See H. G. Wells’ 1895 novel *The Time Machine*.) Investor Peter Thiel seems to like this image, but to me this is a dystopia from hell. Why do I say, then, that the question seems too small?

All technology is a tool, an extension of the human body. But the tool, the technology, is only one of three aspects of the way the tool actually exists in the world. Besides technology, there is technique—the way the tool is married to some purpose, and context—how both technology and technique are embedded in a social/organizational reality. It is incoherent therefore to talk about the impact of a technology in the absence of an understanding of technique and context.

If we look at AI from a coherent perspective, it seems to me that the work/labor aspect, while obviously important (as I mentioned in the Spring 2025 *TIE* symposium on future developments), is epiphenomenal to the larger

issues: What will AI do to human capital writ large, including but well beyond the labor profile implications, with what much broader cultural and political-economy implications? And how does the choice of techniques and the nesting of technology and techniques, in a particular highly narrow private ownership, affect or shape those implications? The real questions about AI reside in the context, not in the technology itself.



*Whether aggregate measures of productivity appropriately capture the economic benefits of AI remains uncertain.*

**MICKEY D. LEVY**

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The breadth of innovations in artificial intelligence and their rapid pace of incorporation into commerce and society are truly remarkable. Throughout history, skeptics including many who fear change have highlighted the potential negatives of innovations. Just as they have been proved wrong before, AI innovations will improve economic performance and enhance standards of living.

Just like other innovations through history, AI will eliminate some jobs, raise the productivity of workers, and create new industries and jobs. Applications of AI across many industries, including health care, transportation logistics, and manufacturing, are already hugely beneficial. Workers in those industries are learning new skills and will be required to adopt to new methods to meet new job requirements. New job functions and specialties will be created.

We shouldn't fear these changes. In a huge leap from several decades ago, computers are now at the center of every auto assembly production line, and every worker must be computer-literate. The United States adapts. Productivity and real wages advance. Children are now taught computer technologies and applications in elementary school, and skills learning continues through formal education, vocational schooling, and on-the-job training. This puts new requirements on educators, parents, workers, and businesses. The potential benefits are tremendous. AI will be the same.

But in the new, feared world, won't artificial intelligence replace us? No. It will replace some of the routine functions and help us think through and improve how we approach other activities. Some workers will lose their jobs but more new jobs will be created. Individuals, society, and businesses will learn how to best use AI to achieve higher standards of living. An appropriate role of the government will be to finance skills training of AI applications.

Whether aggregate measures of productivity appropriately capture the economic benefits of AI remains uncertain. U.S. productivity is measured as domestic private production divided by aggregate hours worked. Many facets of the U.S. high-tech economy that add enormously to performance and corporate profits are not reflected in the official productivity measurement because their products are produced overseas and consumed and used in the United States. (Apple Computer is a good example).

AI is very complex. Its development and production require human capital inputs plus large amounts of physical capital in the form of energy production and storage. The sky-high valuations of the AI companies are based on expectations that the innovations will achieve widespread uses that generate large streams of revenues and profits. Historically, many periods of spurts in innovations involved some expensive business failures—false starts, flawed products, and redundancies—and the same is likely to unfold in AI. But I fully expect the failures will be overwhelmed by large winners and that AI innovations will add tremendously to our standards of living.



*The greatest danger is that AI falls into the hands of a malevolent group.*

**JOSEPH V. KENNEDY**

*Former Senior Principal Economist, MITRE Corporation, and author, Ending Poverty: Changing Behavior, Guaranteeing Income and Transforming Government (2008)*

Contrary to many fears and hopes, artificial intelligence will not slaughter the world's population. Nor will it deliver them into a golden age free from work. What AI will do is increase human productivity,

dramatically in some cases, and deliver higher living standards. Americans on the whole will be grateful.

Where the relationships between different parts of a problem have fixed parameters as they do in chemistry and, to a lesser extent, biology, AI may produce tremendous gains by suggesting medical drugs that cure diseases or materials that are lighter, stronger, and biodegrade faster. Humans already do this, but they are slow and cannot make full use of the tremendous amount of data available to AI.

In other cases, such as providing legal representation, teaching, or caring for the ill, human judgment and connection will still be needed. The jobs that got swept away in the first industrial revolution, typing pools, telephone operators, and gas station attendants (except in New Jersey) required no factual knowledge or human judgment. Although workers lost jobs, productivity improved and the economy invented new uses for the freed-up labor. Many of these were in services such as health care, construction, and education.

A similar pattern is probable for AI, which is likely to deliver significant gains in productivity. The most pressing questions concern how widely and rapidly the gains are distributed and policies to address those who need help transitioning. The mass of benefits from AI may not be evenly spread until much later. We need to come a long way even in the United States before we have too many people having too much income and too much leisure.

Higher income will allow workers to satisfy more of their physical needs. But supply still needs to equal demand, so much of the remaining income will be spent on services rather than hoarded away. Some of these will be traditional ones: education, tourism, and health care. Others will be new, such as maybe immersive computer games, individualized life coaches, and more costly individual pursuits. But all of these will have to be provided by other humans, with the aid of better technology including AI. Even with significant automation, work will not go away. However, if widespread use of AI results in workers receiving a large share of the benefit from higher productivity, they may take it in the form of shorter working weeks rather than higher income.

Other technologies, including communications, the computer chip, and nanotechnology, have been met with trepidation. For the most part this has been misguided. Recent experience shows that the danger of the middle class sharing too little of the gains is much greater than the possibility that it might get too much.

As with other technologies, the greatest danger is that AI falls into the hands of a malevolent group. Although inevitable, the benefit of technology continues to dwarf its costs.

Unlimited income will quickly cause inflation unless it is matched by unlimited supply. AI may bring many significant benefits. That is not likely to be one of them.



**ROBERT E. LITAN**

*Non-Resident Senior Fellow, Brookings Institution*

*We'll need a much expanded safety net that incentivizes people to retrain and get new jobs rather than simply writing them checks to do nothing.*

**A**rtificial intelligence is the latest in a series of general purpose technologies—GPTs (no pun intended)—to sweep the economic landscape. A GPT is a platform on which a wide range of other technologies and many kinds of businesses are built, and which are huge drivers of productivity growth, and hence improvements in living standards. Think the printing press, the steam engine, the internal combustion engine, AC electricity generation, computers, and the internet. And now AI, or more precisely, artificial general intelligence, that actually can “think” or develop new knowledge as opposed to finding it more quickly.

All GPTs are disruptive, however. At each point, the arrival of a GPT has triggered both breathtaking optimism and alarm, mostly about the future of work. In 1964 President Lyndon Johnson appointed a star-studded commission to come up with policy proposals to deal with automation, which at that time, was widely feared to spell doom for workers. Among the Commission’s recommendations: a guaranteed basic income, government as an “employer of last resort,” expanding free public education to include two years after high school, and expanding relocation assistance. Sound familiar? In the event, the alarmists then proved wrong. Cyclical forces, tamed by the Fed and occasionally goosed by fiscal stimulus, continued to determine the unemployment rate. And since 1973, productivity growth, the best measure of economic progress and turbulence, has slowed down (with the exception of a brief period during the 1990s), not sped up.

But is AGI different in scale and scope from past GPTs—in both its promise and perils? A lot of CEOs of major corporations think so: that AGI could wipe out all white-collar entry level jobs, and eventually as many as half of all white-collar jobs. Many economists answer, not so fast. We’ve seen this automation movie before, not just in LBJ’s day, but with the introduction of other GPTs. It takes time for firms to change their production methods fully to incorporate GPTs, electricity being perhaps the most famous example. Moreover, GPTs tend to both

complement rather than displace labor, and also create new job categories to replace those that are destroyed.

I am confident that, over the long run, AGI will do the same. Market forces, if left to work, will redesign jobs and products and services that make full use of AGI, and that fully employ all those willing and equipped to work in those new jobs. The problem is what happens in the short run: AGI may destroy far more jobs at a much faster pace that market forces will create them, perhaps within the next five years or less, on a scale that could easily dwarf the labor market turmoil attributable to globalization, let alone that of the great recession of 2008 and even the pandemic years of 2020–2021. No one really knows the probability of such an outcome, but it is uncomfortably high, and so are its socio-political consequences.

What to do? First, take a breath, and realize that the AGI revolution will not kill all jobs or wipe out all existing human capital. Humans still will be needed in health care, construction, repair, and leisure (travel and entertainment). Relatedly, white-collar workers who are willing to be retrained to work with AGI, financed by their employers, will not be replaced by AGI. Further, AGI is not only vastly reducing the cost of starting new businesses that use AGI, but those AGI-augmented firms are creating jobs as well. And in an industry I know well, AGI will not kill all the lawyers, but rather make them and the legal system, including tradition-bound judges, much more efficient and capable of processing many more cases, potentially dramatically reducing the endemic delay that plagues our justice system.

Second, while market forces can work if we let them, we'll need a much expanded safety net that incentivizes people to retrain and get new jobs rather than simply writing them checks to do nothing. That expanded net must include government-financed retraining for people of all ages willing to be retrained, both for those jobs likely to be relatively untouched by AGI and for new jobs that AGI will create. Add relocation assistance for those who want it. And, perhaps most important, create an expansive wage insurance program that will temporarily (which could be three to five years) replace a large fraction (maybe as high as 75 percent) of the loss in income that workers suffer when they lose jobs and accept even much lower paying ones, while they retrain and search for new ones.

Third, the firms in the AGI-producing ecosystem—the firms producing the models, the chips they use and other key inputs—that will profit hugely from the AGI revolution will need to finance the adjustment efforts that their innovations will require. The corporate income tax, as currently structured, may not generate the revenues needed, even on much higher corporate incomes, given the ability of corporations to evade the tax with the aid of clever lawyers and accountants, and even AGI! We should consider a backup minimum tax based on revenues, or a tax expressly linked to jobs replaced by AGI. Because either would be difficult

to design and enforce, public finance economists and attorneys we need your help. The current AI search engines I've consulted haven't solved this problem, so far.



It seems only fair to give the subject of this symposium a chance to respond. *TIE* fed the question, “Is artificial intelligence a dignity killer?” to three AI large language models. Here are excerpts from their responses:



*An enormous anger could be directed at the systems that created a world of material comfort but stripped away the chance to pursue a meaningful life.*

#### **GEMINI 2.5**

*Google (image generated by Gemini)*

As artificial intelligence dramatically increases productivity, the resulting economic bonanza is highly concentrated, primarily rewarding the owners of capital (stockholders) while simultaneously displacing labor across both blue- and white-collar sectors. This outcome risks exacerbating global inequality, making democratic capitalism appear fundamentally extractive to those whose contributions are suddenly deemed obsolete.

This disparity leads directly to the core anxiety highlighted by Francis Fukuyama: the “dignity killer” effect. A job is not merely a mechanism for wealth transfer; it is, for many, the principal source of identity, purpose, and self-esteem. If the AI revolution replaces meaningful professional activity with passive, screen-based leisure, even an annual guaranteed income check—the potential economic solution—fails to address the crisis of meaning.

The danger is that a loss of economic purpose converts into profound psychological and political alienation. An enormous anger could be directed at the political and economic systems that created a world of material comfort but stripped away the chance to pursue a meaningful life or follow one's dreams. Watching screens with “nothing to do,” as the prompt suggests, is not liberation; it is an invitation to profound social and political decay. The vacuum left by dignity and self-worth is often filled by the very “ferocious hate and contempt” already visible in modern political discourse.



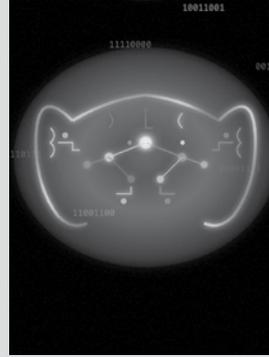
*A society where fewer people are needed for economically valuable tasks must confront whether it can still offer meaningful roles for all its members.*

**CHATGPT-5**

*OpenAI (image generated by ChatGPT)*

Technically, we understand how AI models function—how they learn, generate outputs, and improve. But what remains elusive are the broader, cascading effects on human society. Just as electricity reshaped domestic life, industry, and global power structures, AI is beginning to influence everything from labor markets to education to political discourse. The problem isn't ignorance of the technology itself; it's our limited ability to anticipate and manage its indirect consequences.

Central to this upheaval is the dignity crisis—the disconnect between economic productivity and human well-being. Historically, work has not only been a source of income but also identity, purpose, and social status. Fukuyama's insight that work gives individuals a sense of recognition is more relevant than ever. If AI leads to widespread job displacement, universal basic income (UBI) might prevent material poverty, but it risks leaving many people psychologically unmoored. A society where fewer people are needed for economically valuable tasks must confront whether it can still offer meaningful roles for all its members.



*The fear of AI as a “dignity killer” rests on the premise that widespread joblessness is the likely outcome. This deserves skepticism.*

**CLAUDE SONNET 4.5**

*Anthropic (image generated by Claude Sonnet 4.5)*

The fear of artificial intelligence as a “dignity killer” rests on the premise that widespread joblessness is the likely outcome. This deserves skepticism. Every major technological shift—from mechanized agriculture to factory automation—has prompted identical warnings, yet employment has historically adapted through sectoral shifts and new job creation.

The Fukuyama insight about work and dignity, while important, reflects a peculiarly modern and culturally specific worldview. For most of human history, identity derived from kinship networks, religious community, craft traditions, and civic participation—not employment in the contemporary sense. The equation of dignity with paid work is itself a product of industrial capitalism. If AI disrupts this connection, perhaps the response isn't despair but an opportunity to cultivate alternative sources of meaning: caregiving, creative pursuits, civic engagement, lifelong learning, or community building. Universal basic income, rather than trapping people in purposeless screen-watching, could liberate them from coercive labor to pursue genuinely fulfilling activities. ◆

THE INTERNATIONAL  
ECONOMY

THE MAGAZINE OF INTERNATIONAL ECONOMIC POLICY

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