# A World without Work?

Technology, Automation, and the Future of Work

A Compilation of Essays Presented at the 2016 Values & Capitalism Faculty Retreat



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# Contents

Introduction1
The Impossibility and Challenge of a World without Work
Democracy in a World without Work13 Peter C. Meilaender
More Than Fiction: Picturing a World without Work in Utopian and Dystopian Novels23 Mary Manjikian
What Is Your Narrative? Human Purpose and the Future of Work

# Introduction

For those who believe in the biblical narrative, work is a fundamental aspect of human life. Even before the Fall, "the Lord God took the man and put him in the Garden of Eden to work it and take care of it" (Gen. 2:15). We are called to be productive, to develop things, to use our powers to make order out of disorder—in other words, to mirror our Creator. Of course, after the Fall work remains, but it becomes more difficult: "Cursed is the ground because of you; through painful toil you will eat food from it all the days of your life" (Gen. 3:17).

However, we now find ourselves at a new turning point in history, in which the future of work as we understand it is in jeopardy. Since the Industrial Revolution, improvements in technology have led to the automation of many jobs that could once be done only by human hands and minds. This largely happened incrementally, but today, advancements in technology appear to be coming in leaps and bounds. All these developments have led (and will almost certainly continue to lead) to a more prosperous society—but they have also fundamentally decoupled productivity and job growth.

In light of these realities, what is the future of work? Will job growth come in new sectors that we cannot yet imagine? Will people use increased leisure time in productive ways? Most importantly, what are the social, political, and spiritual implications of a world without work?

The following essays, written by members of Values & Capitalism's Academic Network, offer thoughtful responses to these questions. They certainly do not give us all the answers, but because they come at the topic from various perspectives—economic, political, theological, and literary—they provide helpful insights into the opportunities and challenges of an ever-innovating world.

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# The Impossibility and Challenge of a World without Work

by Steven McMullen, Hope College

In 2009 Google began road testing one of their latest far-reaching projects: self-driving cars. In the years that followed, the company clearly demonstrated that computers can be better drivers than humans. After 1.8 million hours of test-driving, their cars have never been ticketed, and all accidents have been caused by humans.<sup>1</sup>

Visible technological breakthroughs such as this have rekindled old fears about machines taking jobs and leaving humans with nothing productive to contribute. The latest wave of technological angst prompted articles in the *Atlantic, Fortune*, and the *Guardian*, among others.<sup>2</sup> A central fear is that the next wave of technology might be the one that makes human capabilities obsolete, replaced by more efficient, less expensive, and more compliant machines. Derek Thompson writes, "What may be looming is something different: an era of technological unemployment, in which computer scientists and software engineers essentially invent us out of work, and the total number of jobs declines steadily and permanently."<sup>3</sup>

Fears of this kind are not new. The original Luddites were 19th-century textile workers who feared that the introduction of new looms would make their skills obsolete. Every generation since has seen this type of concern. As technology progresses and more tasks are automated, there is a visible loss in employment even as we collectively reap the benefits. Each new wave of technology produces earnest prophets of the demise of human labor. And yet, contrary to these fears, even in the midst of extraordinary technological progress, the total amount of work available for

people has continued to increase. The Luddites, old and new, have been consistently wrong.<sup>4</sup>

The long pedigree of this category of fears, sometimes called the "Luddite fallacy," is the result of a common error in economic thinking. While the benefactors of technological improvements are diffuse, those who are hurt are concentrated and visible. This makes it far easier to count the costs than the benefits, even if the benefits of a technological improvement far outweigh the costs.

Some evidence of this comes from a recent study of 140 years of census data from England and Wales.<sup>5</sup> When technological advancement diminished employment opportunities in agriculture and manufacturing, this freed up resources for growth in other sectors, especially in services. While it is possible to focus on only the paucity of jobs available for aspiring farmers, the growth in other sectors is closely connected.

The declining prices of manufactured goods and food items and the increasing productivity of workers created growing demand for services that were deemed luxuries to previous generations. The result is more accountants, more bartenders, and more hairdressers per 1,000 people in England and Wales, precisely because the population is now wealthy enough to afford their services.<sup>6</sup>

It is impossible to predict where new jobs will open up if truck drivers are all replaced with self-driving semi trucks, but both history and economic theory point toward continued opportunities for workers.<sup>7</sup> Because most technological changes are gradual, they alter the employment landscape indirectly, by changing economic incentives. People constantly adjust to these changes by investing in new skills, moving to different jobs, and adopting new tools. The mass unemployment envisioned by today's Luddites is unlikely to occur as long as people are free to move to those occupations with better opportunities.

# Inequality, Unemployment, and Education

A close examination of the labor-economics literature reveals that a mass of disaffected and unemployed truck drivers should not be our

primary concern. As technology advances, some workers are made more productive, because they are given better tools, and some workers are made less productive, because they are pushed out of skilled employment toward low-skill jobs.

As a whole we are net beneficiaries of technology, but for those workers whose skills are made obsolete by a new technological change, opportunities in the labor market diminish. Economists have documented a broad pattern of skill-biased technological change, in which new technologies complement the work of highly skilled labor but replace the work of low-skilled labor. The result is increased wage inequality and higher returns to investment in education.<sup>8</sup>

If technological change consistently increases the value of particular skills and education, then the education system becomes an increasingly important part of the economy. Unfortunately, Claudia Goldin and Lawrence Katz have documented that, in the US, the educational system continually improved until only the 1970s and 1980s.<sup>9</sup> After that point, high school graduation rates plateaued, and educational outcomes started to diverge, with the most wellprepared students moving into college and graduate school, while many others in their cohorts failed to graduate from high school.

As long as education outcomes improved faster than technology, wage inequality remained constant. When education improvement stagnated, inequality immediately began to increase. The demand for highly educated workers has continued to grow, but our ability to produce such workers at increasing rates has slowed to a crawl.

This broadly supports one of the primary concerns about technological advancement: that a gradual change in technology will result not in mass unemployment but in ever-rising inequality.<sup>10</sup> Low-skilled and middle-skill workers become less valuable to firms that can employ machines to do much of their work.<sup>11</sup> If this is our concern, then the historical record of technological advancement is less uniformly positive.

There is not an historical precedent for machines replacing workers and leaving them idle. There is, however, a number of examples of technological change resulting in decreased living

standards for the bottom of the income distribution and gains for the top. This was often the result in early phases of industrialization and has likely been going on in the US economy over the last 30 years.

# Skill Depreciation and Labor Force Participation

In addition to rising inequality, some fear that improving technology will bring more uncertainty in the labor market, because firms and workers have to adjust to an ever-changing technological environment. Workers may invest in skills early in their lives, expecting to be able to use those skills for a long career. Rapid technological change can disrupt those plans and require that workers constantly learn, adapt, and change occupations.<sup>12</sup> Firms, too, will be less likely to invest in the long-term future of a worker who may not be useful to them once the technology in their industry shifts. If workers are not able to adapt, or are unwilling to accept decreases in pay, they may opt to leave the labor market entirely. If technological advancement requires ever-increasing skill to manage, then many workers could be left behind as the economy changes.

This is broadly consistent with another labor-force trend: in the midst of technological growth and growing income inequality, we also observe the number of people who show up for work each day declining. Labor force participation has grown steadily among women but declined for adult males consistently since the early 1970s. Men are leaving the labor force at younger ages, and long-term unemployment rates have slowly increased.

Some fear that structural unemployment, where workers find that there is no demand for their skills and so opt out of the labor force, has increased permanently. This story is complicated, however, by the fact that low-education workers, while less likely to participate in the labor force, have not been leaving the labor force any faster than high-education workers. The new structural unemployment is equally likely to occur, it seems, across the skill distribution.

# Technological Utopia?

For every Luddite that fears a new era of technologically induced poverty, there is usually a technology optimist that foresees a bright future in which humans rest in a life of leisure while machines toil to meet our every desire. Since technological advances always correspond to an increase in productivity, there is more wealth to go around. Moreover, when workers move toward more leisure throughout the economy, it is usually a result of wealth, not poverty.

As standards of living increase, people have delayed full-time entry into the labor force, moved to retire before health requires it, and decreased total hours worked. Some scholars have even argued that, in our status-driven economy, people work more than is good for them, and we should tax labor heavily to encourage people to move toward more leisure.<sup>13</sup> In this view, work is unpleasant, and the sooner we eradicate it the better.

The optimists and pessimists both see the same future: less work. But their description of the future looks radically different. Optimists tend to imagine a future in which the gains from technological advances are widely shared, so that even those with little to offer in the labor market will still live a rich life of leisure. Pessimists, on the other hand, imagine a world in which a small segment of the workforce reaps most of the gains from technological advancement and others are left in poverty.

Which future is the most likely? History gives us examples of each. In the history of the US economy, the gains from technology have been widely shared when we were able to equip the general population with the skills to take advantage of the new technologies. Replicating that success will be a challenge in the future.

It is possible, however, to imagine a future in which automation provides noticeable improvements in standards of living for those with low skill levels. The extraordinary changes in agricultural technology have resulted in a huge demographic movement away from agriculture toward other industries, but this has not resulted in poverty. Because these technological improvements resulted in lower prices for basic food items, the gains were shared across the

population. The true distributional impact, then, depends not only on the resulting wages but also the purchasing power of the average person. This logic applies equally well to technological advances in medicine, mass media, sanitation, and other areas that directly impact daily life and are widely consumed.

# An Abundance of Good Work

If we envision work as toil—something unpleasant that we engage in only because it allows us to purchase the goods we need—then a future with less work can seem appealing. More time outside of formal labor, it might seem, could free people up for more creative endeavors and more investments in their families and community.

This, however, is an unhealthy and largely dishonest vision of the labor market. This vision rests in a reductionist view of labor that sees work as only a means to an end. Moreover, it pushes toward an equally reductionist view of humanity. If the highest end that humans can aspire to is leisure and consumption, then work must be viewed in a negative light.

In fact, humans find their highest end not in consumption, but in creative service to those around them. Work, therefore, is best envisioned as a vocation that is worth a significant investment. It is true that not all jobs clearly contribute to the common good, nor are all jobs personally fulfilling. At the same time, much of our leisure time is clearly wasted. In their daily work, people often gain much of their self-regard and establish their place in a community. People may, in fact, have the opportunity to do more good in the workplace than they do outside it.

The labor market builds communities of people with specialized skills in ways that other areas of life rarely do, and so work can provide people with the best opportunity to tangibly serve people around them.<sup>14</sup> Our true challenge is not to avoid work but to figure out how to do the most good possible as we participate in commercial life.

Many of the biggest challenges we face today are not the kind of problems that can be solved with more leisure time. If work increasingly requires specialization, so too does public service. A brief survey of the many materials an intellectual needs from the world indicates that much good work is left to be done and that there is room for any person to devote their lifetime to worthy projects. If technology leaves people without jobs, it is not because there is no good work for them to do. If work is service to those around us, then truly a world without work is impossible.

This high view of human labor does not diminish worries about the effects of technology. On the contrary, it raises the stakes. The prospect of technological change making a person's skills obsolete is a real one. In this view, the greatest tragedy of a modern technological age is not the prospect of poverty; it is the prospect that a large portion of our population could be left without a clear opportunity to serve those around them. The challenge then is to build an economy in which people are equipped to do good work and then have the opportunity to do work that is genuinely good.

It is tempting, in the face of technologically induced wealth and inequality, to turn to public redistribution to allow all to share the gains. If progress is measured in terms of only material gains, and if work is only a toil to be avoided, then this approach would make sense.

But if productive labor is a central part of how we flourish as human beings, then a generous public safety net is solving only half the problem. The state might be able to keep people from material deprivation, but it cannot create opportunities to invest their skills in the lives of those nearby. Such opportunities are best found in the family, private commercial activity, religious vocations, and civic life.

If the specter of technological obsolescence cannot be eliminated by state redistribution, what role can public policy play in shaping a healthy labor market? At least two opportunities remain. First, the government can play an important role in investing in the skills and capabilities of citizens. Education is becoming more important as technological progress accelerates, even if schools are not able to predict and directly teach technology-specific skills. A broad liberal education can give workers the foundation necessary to move to new careers when technologies shift the labor market.

Unfortunately, uncertainty about jobs tends to push schools and parents toward specific vocational training programs. Moving in that

direction, however, does students a disservice. Such programs too often prepare students for a job that may be obsolete in a decade, while neglecting the skills that could prepare them to adapt when those career opportunities end. It may well be that a future of rapid technological change will have to be one in which formal education becomes a lifelong endeavor.

Another positive role the state can play is to create a set of institutions, laws, and policies that shield individuals from the pain of creative destruction, even as products and firms are forced to compete. Instead of trying to shield firms or industries from pressures to innovate, the government should invest in aiding worker transitions.

This could take the form of investments in midcareer education, the separation of health benefits from employment, short-term unemployment insurance, or increased ease in starting a small business. Such measures would keep the proper goal front and center: keeping people engaged in creative and productive enterprises that serve the common good. This goal should never be confused with the false corollary that is "protecting local businesses."

# Conclusion

With rapid technological progress comes the prospect of economic changes that eliminate whole ways of life. The agricultural work that once defined American culture is now, because of technological change, a specialized calling for a small fraction of the population. Manufacturing industries have seen similar disruption, as automation replaces careers with computers. We should not minimize the tragedy that is Youngstown, Ohio, or Flint, Michigan. The loss of stable employment because of economic shifts has real casualties, measured in lives, vocations, and communities.

This concern should not be grounds to fear a wholesale replacement of people with machines, however. The best evidence about technological progress points not to mass unemployment but more frequent skill depreciation and career disruption. Instead of trying to protect a way of life that assumed a particular kind of career—a 40-year tenure with a large, stable firm—we should focus on making work transitions easier, so that technological disruptions are less likely to cause permanent inequality.

# About the Author

Steven McMullen is an assistant professor of economics at Hope College. Special thanks to Kaylee Kish for assistance in the research for this essay.

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# Democracy in a World without Work

by Peter C. Meilaender, Houghton College

In his essay "A World without Work," Derek Thompson entertains the possibility that an economy transformed by technological innovation might soon demand so little human labor that large numbers of working-age Americans could find themselves unable to find or hold steady jobs.<sup>1</sup> Because work, for many people, constitutes an important source of personal fulfillment, Thompson recognizes that such a world would pose not only economic but also significant cultural challenges—challenges, indeed, for which no past experience could have adequately prepared us. Peering into his crystal ball, he ponders several possible scenarios for what such a world might look like, labeling them "consumption," "communal creativity," and "contingency."

One might initially find the notion of a world without work implausible—certainly that was my own instinctive reaction. Insofar as work is (in part) the curse of Adam, we can hardly expect that large numbers of us will come to be spared of it. As God says to Adam in Genesis 3, "Cursed is the ground because of you; in toil you shall eat of it all the days of your life; thorns and thistles it shall bring forth to you; and you shall eat the plants of the field. In the sweat of your face you shall eat bread till you return to the ground."<sup>2</sup>

If we take this punishment seriously, we might well be tempted to long for a world without work, but surely not to expect one. Nevertheless, Thompson's thesis deserves more consideration than I was initially inclined to give. In a world where cars may soon drive themselves, how many jobs are there that we are prepared to say with confidence cannot be done by machines? I suspect that my inability to imagine certain jobs being mechanized may have less to do with the limits of technology than with those of my own imagination.

In this essay, at any rate, I want to assume that the world Thompson envisages truly is possible and to ask, drawing on the thought of Aristotle, what it would mean for us politically. Thompson, in my view, fails fully to appreciate the likely political consequence of a world without work, which would be no less than the end of democracy. Obviously, it may be that none of the potential futures he envisions will actually come to pass, in which case such a dire prediction would fortunately become moot. Still, to the extent that his thesis has any plausibility, we ought to take a more hard-headed look not only at its economic but also its likely political consequences, lest we be overly complacent about the kinds of transformations it would entail.

Thompson devotes about half his essay to imagining three possible futures that could emerge if technology gradually displaces increasing numbers of workers, leaving them without meaningful, full-time, paid employment. Of the three, one is clearly more optimistic than the others and represents the option for which Thompson thinks we should begin to prepare ourselves. The first of these possible futures he labels "consumption." This is perhaps a misleading name, and we might better call it (adopting another word Thompson uses) a future of "leisure." In this world, the loss of work is a blessing, a true escape from the curse of Adam. Recognizing that much work is drudgery and toil, we might rejoice at the prospect of an economy productive enough to relieve many people of that burden. Instead of being driven by the need to work, we could freely devote ourselves to whatever activities give our lives meaning.

Although Thompson does not quote it, there is more than a whiff here of the communist utopia described by Karl Marx in *The German Ideology*, where it becomes "possible for me to do one thing today and another tomorrow, to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticise after dinner, just as I have in mind, without ever becoming hunter, fisherman, shepherd or critic."<sup>3</sup> Thompson, fortunately, is more realistic than Marx about how the new leisured masses would in fact be likely to spend their time—not in the amateur polymath's hunting, fishing,

and criticism, but instead "watching television, browsing the internet, and sleeping."<sup>4</sup> The Marxist fantasy would in reality be a world of couch potatoes.

The third scenario Thompson describes—I shall return shortly to the second—is, even more clearly than the first, unappealing. In this world of "contingency," to use his label, the high-tech economy does not enable significant numbers of people to enjoy lives of newfound leisure, either in cultural criticism or merely sleeping. Instead, it leaves them trapped in a precarious existence, seeking one unpredictable, poorly paid form of short-term employment after another. Thompson attempts to find a silver lining in this scenario, noting that it could create new opportunities for a kind of entrepreneurship-from-necessity, in which people enjoy the freedom and independence of piecing together different kinds of work at different times, working no more than necessary to get by. His model for this is a woman he meets who has given up adjunct teaching in order to take a part-time job as a hostess in a café, in her spare time organizing literary and artistic events and trying to sell her books of poetry.

Yet this silver lining really seems to presume that the first scenario, of hunter-critic leisure, would impinge on the world of contingency, filling in those gaps in the day when one is no longer able to find paid employment. If so, then what remains truly distinctive about this scenario, as opposed to the first, is the worrisome emergence of what Thompson, quoting the Youngstown historian John Russo, calls the "precariat"—a "working class that swings from task to task in order to make ends meet and suffers a loss of labor rights, bargaining rights, and job security."<sup>5</sup>

But it is the second of his three scenarios, "communal creativity," that most clearly captures Thompson's fancy and that appears to hold out the most hope that a world without work, though not a leisured paradise, could nevertheless prove to be productive and meaningful. Here he imagines the underemployed coming together in cooperative-style artisan communities, where they could teach, learn, and practice various trades; share information and equipment; develop working friendships and new forms of solidarity; and inaugurate a new

era of fine craftsmanship, of the sort once widely practiced but now largely extinct as a consequence of industrialization.

Thompson's portrayal of this best-case scenario is, to be sure, less than fully persuasive. For one thing, here again we sense his inability to imagine a positive vision of the nonworking future that does not in the end rest on at least some semblance of the Marxist utopia of talented amateurs freed to indulge their passions. Furthermore, it is not entirely clear why we should think of this vision as tied to the potential decline of work. If people want to give up their day jobs or begin working part-time as skilled smiths, photographers, or cooks, nothing prevents their doing so right now; indeed, the Internet, by opening up larger potential markets, has made this kind of small-scale artisanal business much more feasible. Still, it is easy to understand the appeal of a world in which "tens of millions of people," instead of just sleeping and watching television, "make things they enjoy making-whether physical or digital, in buildings or in online communities-and receive feedback and appreciation for their work "6

Lurking behind all three scenarios, however, is a fundamental problem that Thompson notices but does not adequately address. In any of these possible futures, the unemployed or underemployed whether they are enjoying a leisured existence of hunting, fishing, and napping; bouncing precariously from one poorly paid shortterm gig to the next; or engaged for much of their time in some artisanal craft—will still need to eat, be clothed, have a place to live, and receive medical attention when necessary. If they are not themselves earning a steady income, who is to pay for all these things?

The answer, presumably, is the rest of us. Through various forms of government redistribution, those who are still able to maintain productive, paid employment will support those who are not. Thompson hints obliquely at this early in his essay. After introducing the labels "consumption," "communal creativity," and "contingency," but before explaining what these scenarios would be, he comments briefly, "In any combination, it is almost certain that the country would have to embrace a radical new role for government."<sup>7</sup> Only fairly late in the article, however, in a section titled

"Government: The Visible Hand," does he clarify what this would amount to. "Deciding how to tax profits and distribute income could become the most significant economic-policy debate in American history," he writes.<sup>8</sup>

The most important element of this decision, he suggests, would be to supply all adults with a universal basic income—a proposal that in the past, he rightly observes, has won support from both sides of the political aisle. And then he notes, in a passing remark that I believe is one of the most important but understated comments in the essay, that the politics of this could prove divisive: "[T]he politics of universal income in a world without universal work would be daunting. The rich could say, with some accuracy, that their hard work was subsidizing the idleness of millions of 'takers."<sup>9</sup>

Indeed. Not only could the rich say this, but they surely would, and the probable result would be nothing less than the end of democracy as we know it. To understand this, we might learn from Aristotle's discussion of different types of governments. In Books III and IV of the *Politics*, Aristotle develops a careful typology of regimes. He initially generates a list of six regime types, based on a twofold distinction: first, that between just governments that pursue the common good and unjust ones that pursue the private interests of the rulers; and second, that among governments in which rule is held by either one, a few, or many persons.

The distinction based on the number of rulers, however, quickly gives way to a more important one: whether the rich or the poor are dominant in a given regime. And Aristotle focuses the bulk of his discussion on three regimes in particular: oligarchy, democracy, and polity. Thus oligarchy is the rule of the wealthy (who are usually few in number) in their own interest, whereas democracy is the self-interested rule of the free-born, nonslave poor (who are usually many). Polity, which Aristotle tells us has no commonly recognized name because it is rare, represents a middle ground, achieved either by balancing the rich and the poor against each other, so that neither group's claims can predominate entirely, or (less commonly) by the creation of a large middle class.

Why does Aristotle, in classifying regimes, so quickly replace the criterion of the number of rulers with that of wealth and poverty? Because what is truly important about each regime is that it represents a distinctive claim about justice that shapes the political order and its laws. And these turn not on the number of those in power but rather on the reasons they claim to deserve power. Speaking at one point of oligarchic and democratic understandings of justice, Aristotle remarks that

they all [that is, both oligarchs and democrats] grasp justice of a sort, but they go only to a certain point and do not discuss the whole of what is just in the most authoritative sense. For example, justice seems to be equality, and it is, but not for everyone, only for equals. Justice also seems to be inequality, since indeed it is, but not for everyone, only for unequals. . . . [S]ince they are both speaking up to a point about justice of a sort, they think they are speaking about what is unqualifiedly just. For one lot thinks that if they are unequal in one respect (wealth, say) they are wholly unequal, whereas the other lot thinks that if they are equal in one respect (freedom, say) they are wholly equal.<sup>10</sup>

This may initially sound somewhat cryptic, but in its context—as part of an attempt to delineate what is distinctive about different types of regimes—Aristotle's meaning is clear enough. In any given city, he suggests, we can imagine various groups present, all claiming for themselves the right to rule. Confronted by the competing claims of their opponents, each group is driven to offer some justification for why it deserves to rule—driven, that is, to advance its own distinctive conception of justice.

These competing claims, Aristotle argues, are all partially, though only partially, correct. What does he have in mind? The wealthy oligarchs, presumably, say something like this: "It is not right for people who are unequal to receive merely equal treatment. If the city needs some task to be accomplished—equipping an army, say, or constructing a public building—who will foot the bill? We will. If our plans go astray and the city suffers, who has

the most to lose? We do. We therefore deserve a greater share in decision-making authority than those with nothing to contribute and nothing to lose."

The democrats, on the other hand, who are comparatively poor but are nevertheless free citizens, reply along these lines: "But we are not merely your slaves. All of us have been born free. And it is not right for those of equal status to receive unequal treatment. Therefore we all deserve to have an equal share in governance."

Neither argument, says Aristotle, is entirely correct. Just because people are unequal in wealth need not mean they should also be unequal in political rights; just because people share an equal freeborn status need not mean they should all carry equal influence in public affairs. Both groups lay hold of part of the truth, but a city governed simply by oligarchs or simply by democrats will fall short of a more complete justice.

Aristotle is describing here an argument about justice that goes on at the heart of every political order. And we need to apply his insight to Thompson's vision of a world without work to see the full danger implied by that vision to a political order such as America's. For Thompson is suggesting that we imagine ourselves gradually becoming a society in which paid, productive labor is the province of only one segment of the citizenry, the wealthy, who are asked in turn to support everyone else. What Aristotle's analysis reveals is the deep unlikelihood that such an arrangement will be sustainable over time, because it will eventually prove impossible to persuade those doing the supporting that they are not being done an injustice.

To be clear, I do not think it is impossible that the wealthy in Thompson's scenario could be persuaded to supply the poor with a minimum basic income. Perhaps they would decide it was worth it simply to buy off the poor—to pay this price as the necessary cost of maintaining a system from which they benefit. What I do think is impossible is that the wealthy would continue to regard these dependents as their equals or that they would remain content over time to share political power equally with those poorer, dependent compatriots.

There is, I suppose, one scenario in which they might do this: if the poor were sufficiently numerous to threaten revolution were their political liberties taken away. This is to imagine a world in which the poor in effect bully the rich into maintaining their equal political status, which could then be exploited to extort a continued or perhaps increased minimum income. This, of course, is precisely what Aristotle thought went on in a democracy—which he numbered among the unjust regimes for this reason.

If we were feeling optimistic, we might imagine this as a kind of polity in Aristotle's sense, a constitutional order that maintains a rough approximation of justice because the rich and the poor are balanced against each other with neither consistently able to dominate. Viewed from the perspective of modern political history, however, this would be a step backward. For if in the classical world the great political problem was the conflict between rich and poor, one of the great achievements of modern politics-which combines liberal democracy in the political realm with market capitalism in the economic—has been to create a large middle class. Modern politics has made possible the regime that Aristotle thought was so rare: a polity created not merely through the stalemate of opposing forces but rather through the presence of a decisively influential, moderate body of citizens who are not inclined toward the unjust desire to dominate. As Aristotle says in his discussion of polity, a city characterized by a large middle class

. . . must of necessity be best governed. Moreover, of all citizens, those in the middle survive best in city-states. For neither do they desire other people's property as the poor do, nor do other people desire theirs, as the poor desire that of the rich. And because they are neither plotted against nor engage in plotting, they live out their lives free from danger.<sup>11</sup>

From a political perspective, therefore, any of the three scenarios Thompson envisages for a world without work would be likely to produce major changes in our democratic order. Although he rightly senses that these new worlds would provoke important political changes, he radically underestimates, in my view, the likely severity of the transformation.

Democracy as we have come to know it cannot long survive a situation in which one portion of the population is expected permanently to subsidize the existence and activities of another. Citizens will not accept such a situation as just. And they will be right—or, at least, they will have rightly understood a part of justice. Fervently must we hope, therefore, and fondly should we pray, that none of Thompson's three imagined futures comes to pass, for a democratic government half productive and half unproductive cannot long endure.

### About the Author

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2. Gen. 3: 17-19.

3. Quoted in Gilbert C. Meilaender (ed.), *Work: Its Meaning and Its Limits* (Notre Dame, Indiana: University of Notre Dame Press, 2000), 30.

4. Thompson, "A World without Work," 55.

5. Ibid., 58. "Precariat" is Russo's term; the rest of the passage quoted is from Thompson.

6. Ibid., 57.

- 7. Ibid., 55.
- 8. Ibid., 59.
- 9. Ibid., 60.

10. Aristotle, *Politics*, tr. C. D. C. Reeve (Indianapolis: Hackett Publishing Company, 1998), 79. I have omitted some italics and capitalization from the quotation.

11. Ibid., 120.

# More Than Fiction: Picturing a World without Work in Utopian and Dystopian Novels

by Mary Manjikian, Regent University

A good book can do many things. It can allow us to take a break from our work to escape into a great story. It can also move us to political action, helping us develop empathy for individuals and groups through vicariously experiencing their circumstances and struggles. And a certain type of fiction known as speculative fiction can help us imagine future scenarios in our own country or in another country and then use these visions to make sense of the social, political, economic, and cultural implications of events occurring in our own societies.

Thus, if we—as political scientists, theologians, economists, and philosophers—wish to speculate about the shape and meaning of a future world in which much of the manufacturing and service work is carried out by automated or robotic processes, it makes sense for us to look back at a number of older classic novels in speculative fiction that have already looked ahead to consider these processes and what they mean.

Beginning in the early 20th century, many popular American and British dystopian and utopian novels dealt specifically with the phenomena of work and leisure. Taking place at some point in the near or distant future, these novels presented a world in which many economic and political problems had been solved—including issues of poverty and shortages of goods—often through automation. As a result, people in the future appeared to live in a paradise where they had vast amounts of leisure time.

The sociologist Edward Granter uses the phrase "a dream of ease" to describe the fact that so many popular novels written during this time attempted to make sense of the advances of the Agricultural and Industrial Revolutions, which were beginning to displace workers in both urban and rural areas.<sup>1</sup> These speculative novels delineate a number of visions of a future world without work, which may be useful as we consider current technological developments that threaten, according to some estimates, to eliminate 47 percent of all jobs within the next 50 years.<sup>2</sup> What can these earlier novels tell us about work and how we can conceive of work in the future? What lessons do they hold for us?

These future novels often paint one of two pictures: a utopian or postmaterialist vision in which all individuals will be able to substitute meaningful work for drudgery or servile labor and where the line between work and play will be eliminated; or a dystopian vision in which leisure itself will become an instrument of repression and control.

Each vision puts forth an image of the individual, his relationship to his work, and his understanding of the meaning of the work and its place in society. The utopian vision holds a promise of what a future world without work might look like and the ways in which it could enrich us as a society, while the dystopian vision holds a warning of what the future might look like if leisure is improperly conceived of or provided.

#### Labors of Love: A Utopian World without Work

Ursula LeGuin's *The Dispossessed*, written in 1974, is the utopian novel that most often springs to mind when one contemplates a future paradise in which individuals do not engage in servile labor such as plowing a field, but instead devote their days to worthy work that feels more like play. In this book, LeGuin describes life on two planets in the Tau Ceti universe, Anarres and Urras. In these societies, she argues that:

A child free from the guilt of ownership and the burden of economic competition will grow up with the will to do what needs doing and

the capacity for joy in doing it. It is useless work that darkens the heart. The delight of the nursing mother, of the scholar, of the successful hunter, of the good cook, of the skillful maker, of anyone doing needed work and doing it well—this durable joy is perhaps the deepest source of human affection and of sociality as a whole.<sup>3</sup>

In this future society, the distinction between work and play has been erased, because people spend their recreational time in leisure pursuits that are creative and self-fulfilling. They "work," but it is work as pleasure, characterized by the "flow" that Mihaly Csikzentmihalyi has described, where time passes quickly as people are fully engaged in an activity that makes them feel happy and alive.<sup>4</sup>

LeGuin's and Csikzentmihalyi's visions of work as play actually rest on a very ancient idea that can be traced back through Plato's notion of contemplation and the Old Testament Book of Genesis.<sup>5</sup> For even within Judaism and later Christianity, we can identify an understanding of the principle that rest can be good and restorative. As the philosopher Josef Pieper notes in his seminal work, *Leisure: The Basis of Culture*, even God rested on the seventh day, and we can think of God "playing" as He engaged in the work of creation, making things beautiful and creating a world that is not purely utilitarian.<sup>6</sup> We know also that the Roman Gods feasted, rested, and celebrated.

In this vision of a future world without work, therefore, we assume that nothing is inherently evil about not working or laboring. Rather, taking time to rest, contemplate, and create can be restorative and part of the natural order of things. Here Pieper points as well to the philosopher Immanuel Kant, who argued that knowing and philosophizing *is* work. He quotes Kant's observation that "the law is that reason acquires its possessions through work."<sup>7</sup>

In this vision, then, the new world without work (or at least without drudgery) is presented as an apogee of development or a sign that we as a society have achieved a higher moral order. Here, a political scientist would likely point to Maslow's hierarchy of needs and the claims of Ronald Inglehart, who argued that individuals organize

and behave differently politically and socially depending on how well their everyday needs are being satisfied.<sup>8</sup>

In this model of human development, the claim is made that once our immediate physical needs have been satisfied, we can proceed to a higher level of development in which we build and seek to acquire other goods, including community and selffulfillment. Here, the capacity for contemplation is seen as a virtue and as a mark of civilization, because it is this ability to contemplate our own surroundings and identity that separates humans from mere animals.

It is a point that we have arrived at after a long struggle. It is a sort of evolutionary peak, and it is not a position that we should thus seek to reverse or give up. In contrast, apocalyptic scenarios today often center on a situation, such as an electromagnetic pulse or an absence of fuel, that threatens to reverse this progressive project, throwing individuals and societies back to the Stone Age, to a world in which they must once again return to work the fields, unaided by electric light or modern machinery.

In the often socialist utopian vision, it is assumed that the advent of new technologies will solve most of the world's problems, including shortages. There are apparently no more wars. In LeGuin's vision, there is no crime—because there are no shortages, and the state has also ceased to exist. The job of most people is thus to figure out how they can contribute to the world when most traditional forms of employment have vanished.

Edward Bellamy puts forth a similar understanding of mankind's future in his much earlier speculative novel, *Looking Backward*, 2000–1887, written in 1888. In this novel, he describes a socialist future in which there are no shortages and there is an unlimited amount of free time:

With a tear for the dark past, turn us then to the dazzling future, and, veiling our eyes, press forward. The long and weary winter of the race is ended. Its summer has begun. Humanity has burst the chrysalis. The heavens are before it.<sup>9</sup>

In this vision of the future, the work that we will now be free to do is contemplative and creative, often not focused inward but rather contributing to the community. It will be matched to our gifts and therefore self-enriching in a way that servile work is not.

Although the visions presented in science fiction are often avowedly atheistic, this understanding is not inherently anti-Christian. Indeed, Pieper notes that St. Thomas made a connection between leisure and divine wisdom, suggesting that contemplation can lead one to begin to glimpse and apprehend God.<sup>10</sup> In this vision, then, leisure is not the practice of idleness but rather the search for meaning. It is heroic. It can be sublime.

This vision of the future, however, is not a completely optimistic one. Rather, works such as Jim Crace's 2007 novel, *The Pesthouse*, or E. M. Forster's 1909 novel, *The Machine Stops*, call our attention to the precariousness of this new created world, which seems to depend entirely on technological advances.<sup>11</sup> In both works, the reader is presented with dangers that might arise if these technologies were to suddenly vanish: individuals might have become physically weak and unable to protect themselves, or they might have no useful skills to fall back on.

This notion appears as well in novels about peak oil, such as James Kunstler's *A World Made by Hand*, which describes a future world that has gone backward, not forward, when technological advances were abruptly halted.<sup>12</sup> Such novels often wrestle with the theme that something is precarious about all this leisure and the end of self-sufficiency. They thus ask if it is entirely healthy for us to be so dependent on others (including machines) to do the work that is part of our own identities.

But what does this vision tell us about our own contemporary situation? Arguably, we can see glimpses of the advent of this contemplative type of leisure in such technologies as online education. We can begin to imagine a world in which individuals are able to better themselves and increase their overall education level through, for example, taking a massive open online course. Here, it is possible that such technologies will severe the link between education and productivity, because people might not judge their educations

in terms of utility or the acquisition of useful skills but rather regard it is a type of play.

However, it is also possible to identify ways in which individuals today have learned to waste their newly acquired leisure hours whiling away and filling the empty hours with activities such as texting, recording and viewing television shows, and viewing pornography. That is, there is seemingly no guarantee that freeing humans from drudgery will necessarily lead them to new heights of contemplation or that individual humans would make the decision to pursue this "better" type of leisure. Not surprisingly, dystopian novels present and wrestle more fully with this understanding.

# The Tyranny of Leisure

The second vision of a future world without work appears, not surprisingly, much more sinister. In this dystopian vision, little traditional employment is available because many processes have become automated—including, in Aldous Huxley's 1932 classic novel *Brave New World*, the "work" of childbearing.<sup>13</sup> Individuals may work as little as four hours per day, and the challenge for those in authority becomes how to occupy citizens' free time in ways that are not socially disruptive.

In this scenario, the end of work is not an opportunity but rather a crisis, a sentiment that appears often in contemporary writing as well. For example, a recent article featuring an interview with the noted economist and scholar Juliet Schorr speaks of a "profound crisis" engendered by changing norms related to work and leisure.<sup>14</sup>

The fear is that underutilized and underemployed individuals have the potential to destabilize a regime.<sup>15</sup> And just as we can trace the notion of leisure as contemplation back to the Old Testament, so can we trace back the idea of leisure as idleness. Specifically, the Old Testament Book of Proverbs tells us, "Idle hands are the devil's workshop; idle lips are his mouthpiece."<sup>16</sup> Here the implication is that individuals who have too much time on their hands are likely to use it in unproductive ways, which are harmful to themselves and to society. We can also consider sloth, one of the seven deadly sins.

Finally, we might consider the ways in which hard work is seen as a measure of one's manhood and the resumption of adult responsibilities, as opposed to playfulness, a quality that is seen as belonging to only children. In this way, leisure can be associated not with civilization and contemplation, but with social dangers, laziness, and childishness.

Many dystopian novels thus present the idea that regular citizens may not be equipped to handle their leisure in their own ways when left to their own devices. We see this theme in Anthony Burgess' 1971 novel, *A Clockwork Orange*, which describes violent, unemployed youth in Britain engaging in antisocial violence.<sup>17</sup>

We can also see the repetition of these themes in contemporary political and sociological studies, which point to problems such as the youth bulge in the Middle East, warning of the potentially destabilizing consequences of a large number of unemployed youths in Egypt.<sup>18</sup> Youth unemployment in particular is implicated in the rise of jihadism in Western Europe and the Middle East, and it is known that youth are easier to recruit to terrorism if they are unemployed.

The underlying theme of both political analyses and dystopian novels is thus that something is frightening and potentially subversive about individuals who enjoy vast amounts of unsupervised leisure or unemployment. The waning of employment is seen as a danger to be avoided, lest it lead to regime change.

In these dystopian worlds, free time is not regarded as a gift or a positive incentive for the development of autonomy and individual skills. Instead, not surprisingly, what comes about is a top-down set of practices in which a strong state might attempt to steer people's time-use patterns, ensuring that their leisure or free time is spent in socially accepted pursuits, usually of a group nature. Leisure thus has a normative component, and as a result, use of leisure time is often policed through surveillance practices. This understanding is shown most clearly in George Orwell's 1949 dystopian novel, *1984*. In this work, the main character, Winston Smith, comes under suspicion because of his wish to be alone during his off hours and his penchant for having his own thoughts.<sup>19</sup>

In this set of novels, being amused is a top-down, hierarchical process (much as the citizens were provided with bread and circuses by their Roman rulers). Often taking place in a socialist paradise, there is no sense that these individual's work or leisure glorifies the Lord or themselves. Leisure is not created, but produced and programmed.

In dystopian novels we often witness individuals relying on artificially manufactured leisure devices aimed at keeping the masses quiet, subservient, and "happy"—but not in a meaningful way. In *Brave New World*, Huxley describes "soma," a type of drug that is freely handed out to pacify the population. In 1984, Orwell describes the citizen's penchant for government-produced pornographic stories, which are manufactured in a near-constant stream using a sort of kaleidoscope device that swaps out actors and scenes.

In this scenario, leisure becomes its own prison and is not a form of expression but repression. Leisure becomes work. This understanding is presented most vividly in a 2012 short story by the Canadian novelist Margaret Atwood. In "I'm Starved for You," she presents the story of Stan and his wife, who take jobs in a future America with a company called Consilience.<sup>20</sup> Consilience works for the government, employing individuals in a scheme where they spend one month as prison guards and the following month as prisoners, thus performing both work and leisure simultaneously. Because the state, as pictured in dystopian novels, so fears having too many unemployed and too much leisure, it often undertakes unusual measures to retain work, even when it is pointless, unnecessary, and meaningless.

Applying these lessons to our present situation might suggest that, in a future world without work, we as citizens will be provided with leisure and perhaps even encouraged or coerced to partake in leisure activities under surveillance. Here we may make a connection with today's overreliance on social media, noting that from the time they are young, our children can spend all day photographing themselves, sending tweets about the doings of celebrities, and consuming a great deal of written and visual information without any subsequent personal or professional enrichment. Indeed, analysts write about the selfie generation or the selfie nation, emphasizing the narcissistic nature of social media, which calls on us to contemplate not the universe but only ourselves. Such practices may serve to divert our energies away from more socially useful ends.

We can also draw parallels between surveillance in dystopian novels and our current unease with the ways in which we are being surveilled. Here again, we can point to the need to share our lives on social media and the desire to "prove" that we have spent our weekends productively. Did we bake something? Run a marathon? Are we spending our leisure time exercising or eating cake?

Perhaps today's emphasis on fat shaming derives from similar attempts to establish normative patterns for how people should be spending their leisure time. The idea that one could and should have a normative stance on leisure activity appears again in the work of economist Juliet Schorr, who puts forth a "progressive" vision of future patterns. She notes that as leisure becomes more widespread in the future, it is important that leisure and consumption should be sustainable and that one's leisure should not overconsume resources.<sup>21</sup>

In many of these novels, however, what happens next is not a breakdown of the technology, as happened in the utopian novels, but rather some form of a break in which the main character realizes the inauthenticity of his life and reaches out for something more, something real. In *1984* and "I'm Starved for You," the main character reaches out for real relationships, while in *Brave New World*, the character of the Savage typifies the need for a real relationship with nature and with humanity. All these stories thus present the reality that man's natural state is one in which he is productive, using his gifts to create, learn, and contribute to society.

And in this breakdown, we begin to see how leisure is sometimes not a gift but a curse. Man, here, has managed to marginalize himself, rendering himself irrelevant to production through work and also irrelevant to the key relationships that matter in life.

This same theme is explored in present-day American popular culture in the television series *Humans*, which presents a future where synthetic humans or robots have been entrusted with much of society's work—caring for children and the elderly, teaching, and performing

household tasks. In this series, the actual mothers and humans often feel marginalized or irrelevant. They gave away their work, believing it was meaningless and beneath them, but in doing so, it appears that they have also given away a large part of their identities. And as Thorsten Veblen has suggested about the human servants who served the upper class in the 20th century, in the 21st century, the humans come to resent the robot servants who are always in their space, watching them and overhearing the details of their lives.<sup>22</sup>

## Where Do We Go from Here?

What these dystopian novels show is that the questions with which our social analysts now contend—"What shall we do with all these idle people?" and "If I give a machine my job, what else am I giving up with it?"—are not new. They are questions that surfaced along with the Industrial Revolution, and they are questions that each generation has to traverse independently. But the answers are not easy and not obvious, and the forces that we seem to fear may not actually be inexorable.

Indeed, in the seminal work *Theory of the Leisure Class*, written in 1899, Thorsten Veblen suggested that even when one could cheaply buy a manufactured version of something, people might still prefer the higher-quality, handcrafted version.<sup>23</sup> The decision to purchase a good was, he argued, ultimately not about only economics but also identity. America's wealthy might therefore choose to flaunt their disposable income, illustrating the fact that they do not need to procure the cheapest goods, but rather that they appreciate the quality of a handmade item. Thus, he argued, high-quality, individually made goods would always have a market, even among an avalanche of manufactured items.

Similarly, one might argue that there will always be individuals who appreciate the authenticity of carrying out an action themselves. We can point to the fascination individuals today seem to have with products such as farm-to-table food, artisanal cheese, slow food, and locally brewed beer. Although there may be a cheaper alternative in terms of both available goods and services available—individuals might still decide to purchase the more authentic version, the one that is human- or handmade. It is not inevitable that people will choose a training app on a smartphone over a human personal trainer, a math video on YouTube over a teacher who encourages, or pizza delivered by a drone to a home-cooked meal prepared by a human being.

Thus, it is important that we consider the choices we have as we go forward into our own Brave New World without work, such as whether to produce and support new types of leisure that prioritize contemplation over amusement; that we explore whether we have a normative stance on leisure and whether the dangers that we associate with idleness are real or imagined; that we contemplate whether we are too reliant on machines and whether in the process we are giving up the opportunity to develop our own valuable skills; and that we think about questions of authenticity and relationships in a world where much of the work might be done by someone or something else.

Speculative fiction has sometimes been associated with counterfactual thinking, because one can often read a speculative tale as a cautionary tale, using it to identify possible dangers that might arise in the future and think about how they might be prevented.<sup>24</sup> This essay hopefully provides some practices to which we can aspire and those we might wish to avoid.

## About the Author

Mary Manjikian is an associate professor in the Robertson School of Government at Regent University. She is the author of *Threat Talk: Comparative Politics of Internet Addiction* (Ashgate, 2013), *The Securitization of Property Squatting in Europe* (Routledge, 2013), and *Apocalypse and Post-Politics: The Romance of the End* (Lexington Books, 2012). She is a former US foreign service officer with service in Russia, the Netherlands, and Bulgaria and was a Fulbright Scholar at the Institute for Advanced Study at Durham University in England in 2013. She is also a recipient of her university's Chancellor's Award for excellence in teaching and research.

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# What Is Your Narrative? Human Purpose and the Future of Work

by Kevin J. Brown, Asbury University

In 1798, Thomas Malthus—who held the titles of both reverend and economist—published the widely read "An Essay on the Principle of Population as It Affects the Future Improvement of Society."<sup>1</sup> Though the book would undergo multiple future revisions, its same central theme remained: *society is doomed*.

In essence, Malthus argued that human reproduction would continue at an exponential rate, while resources such as land would be limited to linear growth. Given this, each incremental unit of input for productive activity would inevitably lead to diminishing marginal output. In the words of Malthus, "The power of population is so superior to the power in the earth to produce subsistence for man."<sup>2</sup> Or, more bluntly, there simply is not enough food to go around.

This economic appraisal contrasted sharply with the hopeful march of economic progress advertised by Adam Smith and his contemporaries. For Malthus, society was not a complex system iterating toward an inevitable utopian arrangement. "On the contrary," writes economic historian Robert Heilbroner, "those natural forces that once seemed teleologically designed to bring harmony and peace into the world now seemed malevolent and menacing."<sup>3</sup>

Centuries later, it is clear that Malthus' predictions did not come to pass. However, we do not find ourselves immune from potentially "malevolent and menacing" forces. In this short paper, my aim is to consider the ever-increasing rise of automated machinery and the implications for labor in tomorrow's economy. My hope is to

sufficiently argue that determining the future of work is intricately tied to our narrative conception of human nature and purpose.

#### The End of Work?

"We will soon be looking at hordes of citizens of zero economic value."<sup>4</sup> So say William Davidow and Michael Malone in a recent *Harvard Business Review* article. The logic is simple: where capital used to be considered as complementary to labor, it now risks being understood as its substitute. The difference, note the authors, is the rate of progress. Advancements in machinery were slow enough in decades past that technology could be harnessed by the laborer. In contrast, today's progress and intelligent machinery is no longer a passive mechanism to be channeled but an active force destined to succeed human capital. "The Machines Are Coming," reads one headline from a popular news source.<sup>5</sup>

What are we to make of this? For some, labor-replacing innovation is "freedom from drudge work."<sup>6</sup> Complex and intelligent machinery can now undertake otherwise undesirable chores. Not only can we relegate "toil" to, say, robots but also we benefit from their efficiencies. Consider, for example, what it is like to get an airline boarding pass today relative to even a decade ago.

Labor-replacing machinery can effectively cut costs, democratize access to goods and services, and release humans from unpleasant but necessary work to pursue other, more attractive, options. Respondents to a 2014 Pew study suggested, "Technology will free us from day-to-day drudgery, and allow us to define our relationship with 'work' in a more positive and socially beneficial way."<sup>7</sup> Put differently, artificial intelligence and automated machinery is presumed to make our lives easier.

Yet not all work is "drudgery." Indeed, since the Industrial Revolution, human progress has been intricately linked with our industriousness. Who we are closely corresponds to what we do. Take away the latter, and you short-circuit the former. Aside from issues in identity, labor, and the value creation therein is the indisputable means for earning one's living in a meritocratic, market-based society. The threat of job loss because of technological innovation comes not only with what social scientists call psychosocial costs but also a potential reconceptualization of distribution altogether. Understood in these terms, human persons devoid of economic value look to be more dour in the long term than helpful.

The predictions of a technology-dominated labor force are not merely conspiratorial forecasts of modern-day Luddites. A recent study from Oxford University estimated that 47 percent of the US labor market is eligible to be "mechanized out of business."<sup>8</sup> Erik Brynjolfsson, an MIT professor, believes that we are now beginning to see the rate of job destruction outpace job creation. In other words, we are witnessing economic growth without the emergence of new jobs, a trend Brynjolfsson directly attributes to automation.<sup>9</sup>

Brynjolfsson is not alone. Author Derek Thompson offers three compelling reasons for why "the beast is at the door" when it comes to automated labor. First, human labor has been diminishing since the turn of the century. Many correlate this trend with businesses that have opted for computers and software in place of human capital.

Second, a key statistic, according to economist Tyler Cowen, relates to labor trends in "prime-age" Americans (ages 25 to 54). A close inspection reveals that the number of people within this category who are working or looking for a job has been trending downward for the last 15 years. In addition to unemployment, underemployment (those working in jobs they are overqualified for) is trending upward.

Finally, tomorrow's technology is now visible today. With the advent of drones and self-driving cars, it is not difficult to imagine their eventual usage in otherwise previously untouched fields (for example, a drone delivering a pizza). Thompson concludes, "Technology could exert a slow but continual downward pressure on the value and availability of work."<sup>10</sup>

To summarize, the future of work is at stake. Human labor provides healthy self-identification and the means to subsist, save, and accumulate. Yet current trends suggest that our labor is at risk of being replaced by superior machinery. To borrow a phrase from Malthus himself, our job-market outlook has a "melancholy hue"

to it.<sup>11</sup> Indeed, today's changing labor landscape seems to vindicate the reverend's ominous predictions and, two centuries later, trigger a new collection of Malthusian sensibilities for the modern Westerner.

## History Often Rhymes

So, are we witnessing the end of work? Malthus, I submit, offers a helpful starting point to engage this complex question. These concerns may appear different and seemingly unrelated to the issues raised by Malthus in centuries past. However, as William James writes, our world's history is nothing other than a "rivalry of patterns."<sup>12</sup> Or, as Mark Twain is claimed to have said, "History does not repeat itself, but it does rhyme."

Today's economic topics and vocabulary may differ from those presented by Malthus, but that does not mean they lack a Malthusian element. Where Malthus expressed concern over population growth, our modern concerns relate to the dizzying proliferation of artificially intelligent machinery. Similarly, where Malthus feared an abundance of humans and a scarcity of food, today's reality is an abundance of laborers and a scarcity of jobs.

More than 200 years later, it is clear that Malthus' apocalyptic vision did not come to pass. Why? What did Malthus miss in his calculations? Many will rightly suggest that Malthus did not accurately predict the growth of output per person because of innovative production techniques. With the Industrial Revolution came a "massive re-organization of production" that saw extraordinary leaps in output per person.<sup>13</sup> Indeed, the early-20th-century Western world marveled at pioneering forms of productivity such as the diesel engine, radios, airplanes, and penicillin. This productive renaissance minimized if not altogether dismissed Malthus' original concerns.

Productive growth through innovation and increased output per person helps us to understand Malthus' miscue as it relates to predicting Western society's sobering economic future. However, Malthus did not simply underestimate opportunities for harnessing technological advancements in matters of productivity. His forecast logically followed from his conception of human anthropology. That is, he held a particular view of what it meant to be human. Understanding this perspective may offer insight for our present context.

It would be misguided to simply suggest that Malthus failed to predict new forms of productivity from capital; it is that he failed to answer why such productivity might even emerge in the first place. Malthus asserted that the human population would not grow indefinitely, because natural forces such as starvation, war, famine, or other forms of calamity would always bring the population back into equilibrium with the level of resources necessary to survive. This Malthusian trap would forever describe the human lot: a struggle for existence in a world of finite resources.<sup>14</sup>

Much can be said here, but two considerations are worth attending to. First, this offers an attenuated conception of our human makeup. To borrow a phrase from Arthur Brooks, the implication is that humans are not "assets to be developed"—but rather "liabilities to be managed."<sup>15</sup> That is, humans are constituted by consumption, not production; depletion, not creation.

Second, Malthus' picture of humanity as being trapped in an ongoing struggle for survival underscores a distinctly evolutionary understanding, where the organisms that endure in a competitive environment are the ones whose random mutations are best adapted to exist beyond their less equipped opponents. It is not surprising, then, that Malthus' theories have been described as influential to Charles Darwin and his theory of natural selection.

For our purposes, we may refer to this as the chaos narrative. Because beings have specific needs to survive and the resources necessary for survival are limited, they are inevitably in conflict with one another. Further, beings that reproduce with superior qualities will outpace and outlive their less adapted counterparts. Thus, humans are characterized by their survival attributes, or what Darwin himself called "favourable variations." Here, human teleology gives way to pragmatism: if it works, it endures.

While the language may differ, we find a similar chaos narrative today relative to automated labor. Consider the influential documentary *Humans Need Not Apply* by C. G. P. Grey. In one part of the film, he predicts a fully automated future labor force by

comparing humans to horses. After discussing how the horse population dropped dramatically after 1915 because of new forms of transportation, machinery, and so forth, we hear: "There isn't a rule of economics that says better technology makes more, better jobs for horses. It sounds shockingly dumb to even say that out loud, but swap horses for humans and suddenly people think it sounds about right."<sup>16</sup>

In another area, the film likens the human brain to a complicated machine. Further, the complexity of other computers, robots, and so forth will soon surpass the complexity of our brain machines—thus making us obsolete. We have only managed to outpace computers in the workforce up until now because our cerebral circuits are more advanced than the technological alternatives.

So, whether using a horse, a computer, or any other creative metaphor to describe humans, the point is clear. Sooner or later, we will become dated and unnecessary. We simply do not have the features that will allow us to keep up, outsmart, or outrun our future's new robotic working class.

Note that the chaos narrative contains its own explanation of order. Consider the Google-employed futurist Ray Kurzweil, who suggests that there are six epochs to evolution and life. Presently, we are nearing the end, because human intelligence has been successfully merged with technology. Eventually, the exponential growth of technology, information, and intelligence will become incomprehensible for humans.

In the end, claims Kurzweil, there will cease to be any resemblance of a human, as we presently understand it, and only "transhumans," or human consciousness embodied in machinery. Humans, proper, are merely cogs in the larger—ever advancing—evolution machine whose march into blissful, technocratic progress is inevitable.

## An Alternative Reality: Design Narrative

While the chaos narrative may be an implicit or explicit metanarrative underlying tomorrow's labor forecasts, another metanarrative is worthy of consideration when addressing the issues of human productivity in an age of robotic innovation. We may refer to this as the "design narrative." In contrast to chaos, this narrative—cut from the cloth of the faith tradition—describes humanity as being deliberately designed and uniquely created. Thus, to understand human purpose, we must first understand the designer.

The creation narrative of the Judeo-Christian tradition tells us that God is creative, productive, and relational. Creation, and relating to creation, is an overflow of God's nature; it is in his essence to create and relate. To go a step further, God relates to his creation (human-kind) in a loving way. It is here that we find an important caveat. God does not simply show love—God is love.<sup>17</sup>

Understanding the nature of God has direct implications for understanding our own nature as humans. We are told in the Genesis account that man was created in God's image, the Imago Dei.<sup>18</sup> If we accept this line of thinking, there are several important implications for how we should understand human nature and purpose.

First, every human being has an inherent dignity because he or she was deliberately created and bears God's image. Orthodox faith tells us that each life is supremely valuable because that life was created by God and bears his image.

Second, we have attributes of our creator inherent in our being. This, of course, does not mean we are like God or we are God—but it does mean that we bear his thumbprint. Imago Dei literally means an image or likeness of God. That is, we have a Godlike resemblance. Therefore, we might say that when we produce, create, and relate, we are coproducing, cocreating, and corelating with God. We are exercising these image-reflecting attributes.

Third, this means that humans have an elevated status in God's created order. Though all of creation originates from the creator, it is only human beings, we are told, that bear his likeness. In contradistinction to other creatures (including complex manmade machinery), humans can exercise both reason and will on the world. We can consider our circumstances, reflect on the past, and intuit the future. Further, we possess consciousness; that is, we have a sense of self, or what we often call agency. Finally, Imago Dei means that we are spiritual beings. We are not simply the sum of our biological

components. Nor does our value merely rise to the level of our economic productivity. We have a spirit; a soul.

## Implications for Future Labor

While not exhaustive, I want to offer three implications of the design narrative (and its depiction of human nature and purpose) for navigating the complexities of our dynamic labor landscape.

First, metaphors matter. If humans are designed and resemble the productive, creative, and relational qualities of the designer, then we should be entirely skeptical of attempts to compare humans to horses, advanced computers, or any other organism that does not bear God's image. If humans are, indeed, advanced processors that resemble machine-like capacities, then it is not unreasonable to expect that we would become obsolete and thus replaceable once similar organisms evince qualities better suited for survivability in a competitive landscape.

Yet what if we are not? As Michael Harris writes in his thoughtprovoking book *The End of Absence*, the largest database in the world, the most complex computer system, the most advanced adaptation of artificial intelligence "still lacks the honed narrative impulse of a single human mind."<sup>19</sup>

If we conceptualize ourselves under the design narrative, then we have a new basis for appreciating human adaptability and malleability. As economists like to say, when variables change, rational humans adjust their behaviors accordingly. These adjustments recruit the unique human qualities found in our embodied selves. That is, we have capacities for assessment, critical thinking, and problem solving (reason); we are characterized by free agency and obligation (will); we are constituted by cooperative interactions and find meaning and connection in others (relation); and we possess and regularly exercise compassion, goodwill, and commitment (emotion). Given this, trite comparisons of human personhood to computers or animals appear, to borrow *C. G. P. Grey's* expression, "shockingly dumb."

Second, human ontology makes us unique (and thus difficult to

fully replicate) in the economic realm. In his book *Redeeming Economics*, John Mueller writes:

Jesus once noted (as an astute empirical observation, not divine revelation) that since the days of Noah and Lot, people have been doing—and presumably will continue to do for as long as there are humans on earth—four kinds of things. He gave these examples: "planting and building," "buying and selling," "marrying and being given in marriage," and "eating and drinking." In other words, we human beings produce, exchange, give (or distribute), and use (or consume) our human and nonhuman goods.<sup>20</sup>

We know in economics that value is created through the process of exchange. A free and open marketplace creates the conditions for mutually beneficial trade through interpersonal transactions or the medium of businesses. Trade and exchange relationships are not simply constituted by consumption, but by production. That is, economic activity cannot be understood in terms of consumption alone. As humans, we have productive capacities that are intricately tied to consumption and thus value.

Moreover, it is important to note that value is based on human conception, and such conceptions are conditioned by an ensemble of economic, social, political, moral, and spiritual factors that are often unique to individuals. Machinery, based on this conception of value, can neither confer nor create value in itself. It is always a function of human exchange, even if facilitated in some way, shape, or form through machinery. Among other things, this would make complete robotic substitution of human production and consumption impossible in an orthodox economic sense.

Third, and related to the second point, as a teleological creature, humans are endowed with moral and spiritual sensibilities. The design narrative not only posits man as a moral being but also as a being that inhabits a moral reality. Therefore, in line with the Aristotelian tradition, human goodness is bound up with fulfilling human purpose: doing the thing we were designed to do. Virtually no mechanism in the world of automated technology

accounts for this, even though it is a distinct dimension of the human experience.

Consider Google Chairman Eric Schmidt's claim that the technological corporate powerhouse can "make you smarter" if provided with enough of a user's data.<sup>21</sup> Note, though, that Google cannot make humans *better*. That is, Google can equip us with data-driven decision making, but it cannot imbue moral excellence or inculcate a deeper, more contemplative moral imagination.

Not that we have not attempted it. The rise in automated machinery naturally gives rise to ethical quandaries based on how they are deployed. While this necessitates ethical programming in autonomous robotic entities, it fails to answer the question: whose ethics?

Indeed, in a 2012 *Economist* article titled "Morals and the Machine," one author casually recommends that "where ethical systems are embedded into robots, the judgments they make need to be ones that seem right to most people."<sup>22</sup> While the comment is likely to gain acceptance in its presently generic form, presenting a specific ethical predicament is altogether unlikely to gain widespread acceptance among the masses.

For example, consider a dilemma posed by Stanford University's Chris Gerdes as it relates to autonomous automobiles: if a young child runs in front of a self-driving vehicle, should the car hit the child (likely killing the child) or swerve into an oncoming van (likely killing the vehicle's passengers)?<sup>23</sup> The expectation of achieving moral consensus for this or similar dilemmas is highly unlikely, thus supporting Alasdair MacIntyre's claim that competing views of justice and ethical action is often "incommensurable."<sup>24</sup>

### Conclusion

Will jobs soon become a relic of the past? Are we slowly witnessing the end of work? Are our present-day Malthusian sentiments justified? In this paper, I have attempted to suggest that our answers to these questions begin with an antecedent question: what is your narrative?

Under the chaos narrative, humans cannot keep pace with

superior robotic beings in terms of productivity and processing, leading to their logical and inevitable replacement. That is, human capital as we know it is necessarily disposable because it is predicted to equal zero economic value.

In contrast, under the design narrative, human beings have a God-reflecting ontology and a deliberately designed teleology that makes us unique in the created order. While nothing in the design narrative would fail to recognize or even applaud the innovative leaps and bounds inherent in technological progress, human beings made in God's image exist as the protagonist to this story.

Thus, in matters of human teleology, progress is not simply advancing information and productivity; it is fulfilling human purpose—the very command of Christ in Matthew 5:48 to "be therefore perfect ('telos')"—or, as Eugene Peterson writes in *The Message*, "Live out your God-created identity."<sup>25</sup> As image bearers, a significant dimension of human purpose is to relate, create, and produce.

This essay does not attempt to say what the future of work will be, exactly. As Malthus would struggle to predict, let alone comprehend, a diesel engine, it is equally difficult for us to forecast our future arrangements. However, if we accept the design narrative as our overarching metanarrative, I humbly submit that we can indeed say what the future of work will *not* be: human obsolescence.

#### About the Author

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#### Notes

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