

NEW LABOR GETTING THINGS DONE: AUTOMATION AND THE FUTURE OF BUSINESS



CONTEXT & DYNAMICS

Articles continue to proliferate about the “labor shortage” and the rising economic costs associated with the higher pay and increased benefits that have resulted. The shortage is little understood because the causes are complex and include: Deaths; Retirements; Family Needs; Upskilling; Immigration; Side Hustles; Gambling; New Businesses; Health Issues; Changed Habits; and the Search for a Better Life. The pressures exerted by these causes have led to the absence of available workers. At the same time, businesses have increasingly added robots and complex automation software to their operations, steadily shrinking the size of the workforce needed, with entire stores and factories operating without laborers and requiring only enough trained employees to maintain the software and repair the robots. What happens when workers’ reluctance to accept jobs crosses with the technology that eliminates those jobs? The historical tension between capital and labor will become more strained. As the job market continues to contract, some system will need to be created that grants money to individual consumers so their spending can continue to support the economy – that is, a system that enables consumers to have enough money to buy all the things the robots make and to access all the services the automation offers.

IMPLICATIONS

- Prices and costs will continue to increase in the near term as workers demand and get higher pay and better working conditions.
- The many ways individuals have found to make money during the pandemic will continue to support a certain portion of potential employees and keep them out of the workforce.
- Businesses providing robots and automation software will continue to benefit in the long term.
- Business efficiency, productivity and earnings will increase as technology becomes more utilized.
- The “End of Work” has been a popular trope for years, but now society will face the economic consequences of a shrinking job market sooner than anticipated.
- Immigration, which is currently a political issue, will slowly shift to become an economic issue.



What Is Happening?

The business world seems confused. So many questions and so few answers. Should a company mandate its employees' return to the office? How much is just right for salaries and wages? What should a "new" office or factory look like? Which robots can do what needs to be done? Should work be outsourced? Is the supply chain permanently broken? Where do future profits come from? What happens to margins if inflation continues to rise? Where will the demand surge settle after the current period of "relief" spending subsides? If inflation is, as John Maynard Keynes defined it, "the result of the excess of aggregate demand over the available aggregate supply," how long will inflationary tendencies endure?

These are some of the questions on the table in executive suites today. One of the biggest dynamics related to those kinds of questions, however, comes down to one issue: how best to get work done. Human labor is becoming tricky. Employee issues about careers, or even whether to take a job at all, seem to revolve around wages, working conditions and benefits at one end and risks of COVID-19 infections in the workplace, job schedules and child care (and in-person education) at the other, with an increasing turn to unionization to address those issues. And laborers seem to have **public support, with 68 percent of Americans thinking positively about unions, up from 48 percent in 2009 and the highest percentage to feel pro-union since 1965.** Meanwhile, businesses continue to increase spending on automation, with planned capital expenditures for this year set at \$2.8 trillion, an all-time high, up from \$2.5 trillion in 2020. Artificial intelligence and other software capabilities can now automate entire processes for various enterprises, from retail to restaurants and on to factories. (*Associated Press*, 10/8/21; *Bloomberg*, 9/11/21; *Reuters*, 6/23/21; *Investor's Business Daily*, 9/6/21)

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to spend in such a way as to keep the economy strong, while businesses, which depend on a strong economy, need to make a profit to keep shareholders and owners satisfied. Where is this ongoing tension headed?



*"This robot barista is so authentic
it even got my name wrong."*

Labor in Context

The 1977 song by David Alan Coe offered this sincere threat: "I'd give the shirt right off of my back/If I ever had the guts to say/Take this job and shove it/I ain't workin' here no more." That decades-old storyline might be considered a foreshadowing of the kind of contemporary exchanges currently appearing on a Reddit forum, which one observer generalized as: "I'm not asking you to come in [to the office]," insisted a manager. "I'm telling you that you have to come in." To which the employee responds: "And I'm telling you that you'll have no worker at all now. I quit." (*New York Times*, 10/31/21)

Lately, more and more workers have found the “guts” and have been walking out the door, often informing the company via a letter of resignation, sometimes with nasty statements online, often without ever showing up again (*i.e.*, “ghosting”), and most often without another job to replace the one they left.

◆ In April of this year, the number of employees quitting their jobs set an all-time record high for one month, when 3.9 million workers resigned their posts. That record was broken in quick succession in June, July and again in August, when 4.3 million American employees quit. And the record was broken again in September, when 4.4 million employees walked off their jobs. As of August, the U.S. economy had 10.4 million open job offerings, with only 8.4 million unemployed Americans seeking work. (*New York Times*, 6/21/21 and 9/8/21; *Atlanta Journal-Constitution*, 10/13/21; *Atlantic*, 10/15/21; *Investor’s Business Daily*, 11/15/21)

◆ Among job seekers, 46 percent admit that they did not show up for a scheduled interview, seven percent failed to show up for their first day of work on a job they had accepted, and 28 percent said they had “ghosted” their employer, meaning they halted all communication and stopped working for a company without giving notice. **Fully 76 percent of employers say that job candidates have ghosted them.** (*All Work*, 10/12/21)

◆ Worker shortages are surfacing across industries, with, for instance, the day-care industry being short 126,700 workers, restaurants and bars having 930,500 more jobs available than they did in February 2020, and hotels missing 290,000 employees in August compared to the month before the pandemic started. In the hospitality industry, one in 14 employees quit in August 2021, a rate 50 percent higher than before the pandemic. **Half of small business owners say they have unfilled positions, and 93 percent of them say they have seen few or no qualified applicants for those positions.** (*The Week*, 6/13/21 and 10/1/21; *Modern Healthcare*, 9/20/21; *Bloomberg BusinessWeek*, 9/27/21; *Wall Street Journal*, 10/14/21)

◆ Unionization and strike votes have become widespread, hitting a variety of companies and industries, from Starbucks and Hearst to Deere and Kellogg’s. Even small enterprises, such as workers in a sausage-casing

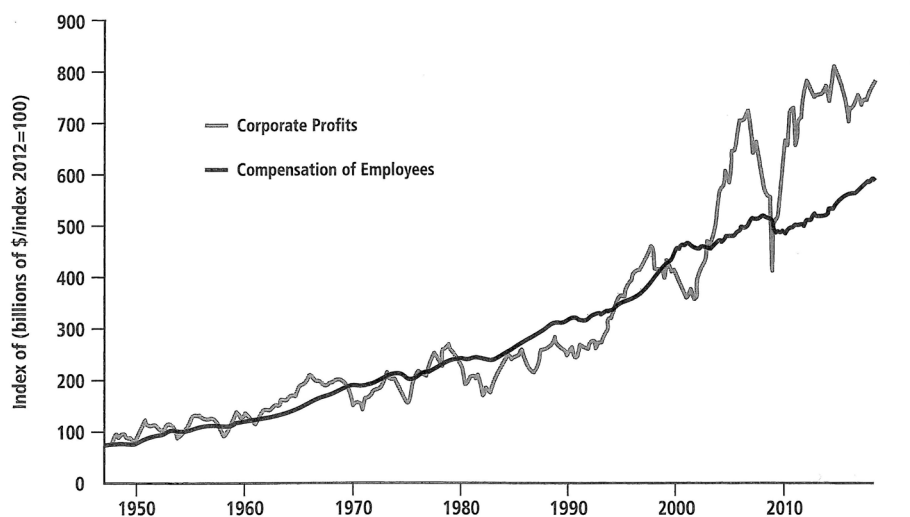
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company in Arkansas and drywall installers in Orange County (CA) have experienced unionizing efforts. Strikes, both small and large, increased to such an extent that the tenth month of this year got the shorthand moniker “Striketober.” (*Atlanta Journal-Constitution*, 11/19/21; *Wall Street Journal*, 11/1/21; *New York Times*, 9/5/21, 10/5/21, 11/6/21, 11/9/21 and 11/10/21; *NPR*, 10/14/21)



The labor situation is more complex than citations about workers quitting or unionization efforts can express. For instance, the recent jump in the number of employees quitting their jobs has led to the popular characterization “The Great Resignation.” The repeated use of that term has pushed aside other terms that more accurately explain what is happening: “The Great Revaluation” of workers and their relationship with work; “The Great Redirection,” with workers looking other places for value, purpose and meaning; and “The Great Rift” between employers and employees.

US Corporate Profits Eclipse Labor Income



Note: Corporate profits with inventory valuation adjustment and capital consumption adjustment/GDP: implicit price deflator, Q2 1954=100.
Compensation of employees: wages and salary accruals/GDP: implicit price deflator, Q2 1954=100.

Source: US Bureau of Economic Analysis, graph from FRED, Federal Reserve Bank of St. Louis.

Individuals view work differently now than they have in the past, a long-term reassessment put into hyperdrive by the pandemic. Even beyond that new perspective, many more forces are driving the changed status of jobs and workers.

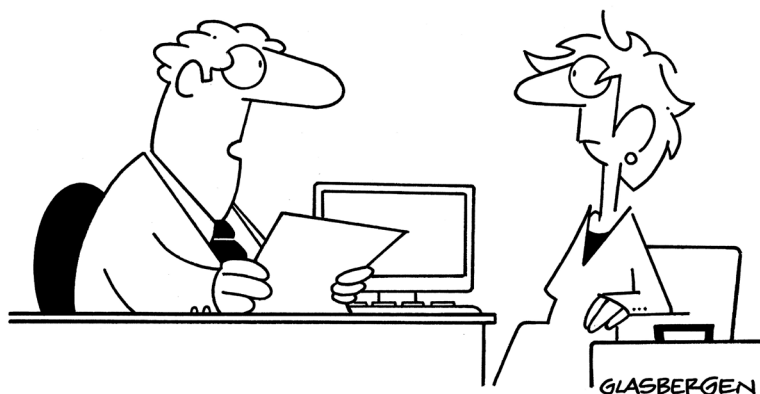
Companies, evidently caught off guard by the changing attitudes among their workers, have scrambled to retain current employees and recruit new ones to replace those leaving. They have offered increases in salaries and benefits, including signing and retention bonuses, with, for instance, a grocery chain in Dallas offering potential store managers salaries of \$175,000, up from \$125,000 before the pandemic, and the San Diego unified school district offering \$4,000 signing bonuses for teachers. Thirty-six companies, including UPS, Starbucks and Bank of America, are offering to pay employees' college tuition. Several companies, including Kickstarter and some Microsoft divisions, have agreed to reduce the workweek to four days, and many businesses in the U.S. have added days and weeks off with names such as "Self-Care Week" and "Global Week of Rest." "Flexible" schedules, as well as work-from-home routines, have become expected

To be effective,
companies need to
understand the context
in which workers are
quitting at record rates,
demanding better
working conditions
and forcing salary and
benefit increases.

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adjustments for many white-collar employees. And large employers have redesigned offices to make employees more "comfortable" back in their cubicles, with, for instance, Google opening up its office space, installing modular and mobile furniture and adding privacy robots that can actually inflate balloon walls to create temporary private rooms. Some companies have even added pet insurance to their benefit packages. (*Wall Street Journal*, 6/24/21, 8/16/21 and 9/14/21; *New York Times*, 9/2/21, 9/6/21, 9/14/21, 10/9/21, 11/6/21 and 11/10/21; *Bloomberg BusinessWeek*, 9/20/21; *Atlantic*, 6/22/21; *Washington Post*, 6/29/21)

Are such incentives going to be successful for individuals who have made fundamental changes in their attitudes about work? Perhaps, but not completely. To be effective, companies need to understand the context in which workers are quitting at record rates, demanding better working conditions and forcing salary and benefit increases. Even before the pandemic, 55 percent of American workers said they were "somewhat or very likely" to search for a new job; the amount of employee burnout from overwork and rising stress reached 40 percent; and anxiety, as we had written, was becoming a normal condition (see [inThought](#), 1/11/19; *Inc.*, 10/15/21).



"You can name your own salary. I call mine Tiny Tim."

The pandemic provided individuals with time to think about their lives, to reconsider their devotion to work and to discover new activities that brought them purpose and meaning, and in many instances, income. **The worker participation rate for September – that is, the share of the population 16 years and older who are either working or looking for work – was at 61.6 percent, the lowest since the 1970s and down from 67 percent pre-pandemic.** (*Wall Street Journal*, 10/14/21 and 11/1/21)

The business world has changed, and the causes for a new perspective about work among would-be employees are varied and extensive. Consider the following realities that have put labor shortages in context.

Deaths – Last year, the number of deaths in the U.S. increased by more than eight percent over the average per year, to a figure above three million; many of the deceased were senior citizens. Going by the AARP number that 20 percent of people between 65 and 74 were still working last year, the loss amounts to 4.3 percent of the 3.5 million people missing from the workforce today. But late in the year, deaths among those of typical working ages (18 to 64) started to increase as well. Meanwhile, another 100,000 died of drug overdoses last year, and the great majority of them were of working age. (*USA Today*, 7/14/21; *Atlanta Journal-Constitution*, 7/11/21 and 11/6/21)

Retirements – COVID-19 prompted more than three million more retirements than normal, according to the Federal Reserve Bank of St. Louis, and that figure amounts to more than half of those retiring during the pandemic. More specifically, 2.7 million more members of the Baby Boom generation than expected for their ages have left the workforce since the pandemic started. (*Financial Times*, 11/9/21; *Wall Street Journal*, 10/14/21; *Los Angeles Times*, 7/10/21)

Family Needs – Nearly 1.6 million mothers with children under the age of 17 were missing from the labor force

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as of September, meaning that of the 7.1 million women who left the workforce with the lockdown, many have been kept home by day-care costs. Approximately 493,000 more women than men have quit their jobs this year. Moreover, this fall 63 percent of female middle managers said they would remain in their jobs in 2022, down from the 75 percent who said the same thing one year earlier. (*Washington Post*, 9/19/21; *Los Angeles Times*, 11/11/21 and 11/23/21; *Wall Street Journal*, 11/14/21)

Upskilling – Fifty-eight percent of the current workforce have the skills needed to be successful in their jobs going forward, meaning that 42 percent are not trained to deal with the realities of the modern work environment. Enrollment in four-year colleges has declined in the past two years, while special training schools have enjoyed an enrollment increase, as workers focus on gaining the specific skills they need. For instance, enrollment in bachelors, master's and doctoral nursing programs increased by 5.6 percent in 2020, meaning that 250,000 students are studying to be nurses. Many of those pursuing upskilling are out of the workforce for the time being. (*Dallas Morning News*, 10/15/21; *Fast Company*, 5/6/21)

The “treadmill” lifestyle of working for advancement, a rising standard of living and a higher salary came to be seen as enervating and can be a futile game.

Immigration – In 2020, for the fourth year in a row, the number of immigrants entering the U.S. was below 500,000, **less than half the level in 2016.** (*Atlanta Journal-Constitution*, 7/11/21)

Side Hustles – We have written about the ways in which side hustles and hobbies picked up during the pandemic have evolved into careers. Globally, for example, more than 50 million people say they have turned their online entertainment into becoming an influencer – that is, they video themselves using a

brand or a product, upload the video to TikTok, Instagram and/or YouTube, where they have followers and subscribers, and lure advertisers to support their enterprise. In a 2019 survey, 23 percent of those between the ages of 13 and 38 in the U.S. said the descriptor “influencer” fit them now. Meanwhile, Facebook said it

plans to disburse roughly \$1 billion through 2022 to content creators of all kinds to encourage them to launch videos on its site. New enterprises, such as Patreon, and older enterprises, such as Twitter and YouTube, are establishing structures to attract more and more content creators and are making it easier for them to attract advertisers for revenue (see **inF 1601** and **1617**; *Wall Street Journal*, 8/27/21; *Bloomberg BusinessWeek*, 10/4/21 and 10/18/21).

Gambling – The opportunity for individuals to wager in open markets has become a national phenomenon, with this year's gambling revenues on a pace to break the previous annual record of \$43.65 billion. The gambler's mindset has not remained with traditional outlets. The pandemic left many people with money and time **to increase their hours on financial apps by 90 percent** compared to the previous year, and to increase their participation in the equities market via their mobile phones by 135 percent compared with before the pandemic. With the stock market continuing its rise through the pandemic, this tended to be profitable and led to curious turns in valuations for stocks such as AMC Theatres and GameStop, among other so-called meme stocks. Trading and investing in cryptocurrencies have turned side hustles into careers, as one pediatric-nurse-turned-crypto-trader explained: "It was really hard sitting in my office making a few hundred dollars a day or whatever it was and then taking a [crypto] trade on my lunch break and making my whole day's wage in five minutes." (*Harper's*, 6/21; *Bloomberg*, 9/17/21; *Investor's Business Daily*, 11/29/21; *New York Times*, 7/14/21; *Pymnts*, 2/5/21)

New Businesses – Filings for new businesses were 56 percent higher during the pandemic than before the disease hit. In 2020, for instance, more new businesses were formed than in any year since 2004, when such numbers were first compiled. (*The Week*, 6/18/21)

Health Issues – Forty-two percent of workers in 2021 said they are afraid to return to the office, up from 34 percent in 2020; this past fall 44 percent said that they were fatigued at work, up from 34 percent this past June. Not only is work making people sick, but fear of the pandemic and other social disturbances have increased the percentage of those suffering from anxiety and depression. We put that in the following chart from two years back. (*Axios*, 8/16/21; *The Week*, 9/3/21)

The New Economy Drives the Axis of Anxiety



Changed Habits – Among the many things the pandemic did, it disrupted people's habits. The era of COVID-19 pushed individuals into what has been called "Forced Experimentation" – that is, trying new ways to operate and live. Going to work changed; shopping changed; eating restaurant food changed; and savings changed. New ways of doing these things joined other changes in habits already underway, from watching movies to listening to music. For example, work routines: New York City has more than 332,000 employees working in the financial industry; of those, only 27 percent were going to work in company offices in October. Meanwhile, individuals

changed their historical savings habits and stuffed their accounts with more than \$2.2 trillion extra cash. Individuals had time to rethink what they were doing habitually and to reconsider how they want to spend the remainder of their lives. (*Guardian Weekly*, 10/29/21; *New York Times*, 11/29/21; *Investor's Business Daily*, 11/29/21)

Search for a Better Life – We have documented Americans' shift in attitudes about what brings them meaning and purpose, and for the past decade, that shift has seen them turn away from the centrality of work in their lives. In the past, a standard conversation starter between new acquaintances was "What do you do?" – a question that, in retrospect, implied that one's identity was tied to a job. With millions of people suffering from a new and mysteriously forceful illness and with hundreds of thousands of Americans dying from that illness, individuals started to rethink their lives, and that reassessment included the relative importance of work and whether or not it could supply meaning and purpose. Taking control of life's routines (e.g., choosing where and when to work) and focusing on what they find important (e.g., family, travel, special experiences, learning) have brought back personal agency and self-determination, which, with time to focus on such things, many Americans came to sense they had lost. Now, conversation-inducing questions tend to revolve around family, vacations, learning, reading, viewing and hobbies (see [inThought 9/7/21](#); *Inc.* 10/15/21).

All of these areas, from family needs to gambling, pulled individuals away from traditional labor markets. People discovered latent talents, many of which enabled them to make the money they needed. Many also learned that they do not "need" as much money as they once thought. Moreover, the "treadmill" lifestyle of working for advancement, a rising standard of living and a higher salary came to be seen as enervating and can be a futile game; as one job searcher, who said she realized her efforts to gain advancement in the hierarchy were wasted energy, observed: "I was seeking out a company that put wellness first." (*New York Times*, 9/6/21)

Three-dimensional (3D) printers are building all the houses in entire neighborhoods in Mexico and Southern California, using labor only for installation of appliances and some finishes.

Many reasons are driving people's reluctance to take menial, low-paying, time-consuming or anxiety-driving jobs and to look for more rewarding work, even if that means trying to convert a side hustle into a new kind of career. Individuals started their own companies, turned to hobbies to make money and focused more on their health and their pursuit of a better life. In addition, many people simply left the workforce for good, retiring early. And then there is the issue of much lower immigration and the more than 750,000 deaths in the U.S. from

COVID-19. The economy might still be roughly 5.3 million jobs short of the pre-pandemic era, but the workforce has shifted more than that, and available and interested job seekers are well short of that figure.

No matter how long the economy takes to work through the need to increase wages, change work environments and encourage workers to accept available jobs, companies will continue to expand their use of automation.



"But if we keep up with technology our employees might develop skills that will allow them to leave."

Automation in Context

Renown Health, a nonprofit hospital system in Reno (NV), has decided to focus on automation to replace the dwindling number of nurses, launching a pilot program that attaches an electronic device to each patient, thereby enabling fewer nurses to monitor more patients. Renown's chief executive, Tony Slonim, offered an explanation for the use of automation that could come to be the perspective of more and more business leaders: "We've got to break through with the innovations if we're going to be successful in managing workforce challenges and shortages." That is, automation is not only a response to the current labor shortages, it becomes the long-term response to a changing workforce and advancing technology. The potential for increased deployment of automation was revealed in a 2020 Deloitte study, which found that only 17 percent of respondent organizations had significantly invested in AI-specific reskilling initiatives. (*Wall Street Journal*, 10/14/21; *Aightfold.ai*, 6/1/21)

Labor shortages are a near-term problem, and the disruption of just-in-time delivery practices is an issue made severe by labor dislocations. For many enterprises, the long-term solution is automation, adding robots and software capabilities to their operations. And businesses have become aggressive in deploying these no-benefits-and-no-wage "employees."

◆ Nissan's "intelligent factory" operates with few human laborers, only those required to maintain the software and robots. The factory includes welding and mounting, painting and inspecting the quality of work. The first intelligent factory is in Japan, and the company plans to roll the model out worldwide.

◆ Kroger, the largest grocer in the U.S., is entering the Florida market without opening any stores,

building warehouses that depend completely on robotic labor to take online orders and assemble items to be delivered to residents. Kroger plans to roll out the service nationally. Kroger has also already started creating its all-self-checkout stores.

◆ Walmart is testing an all-self-checkout Supercenter in Texas.

◆ Merrow Manufacturing in Fall River (MA) built a fully automated 30,000-square-foot cutting-room floor to produce medical scrubs. The new facility produces 15 times as many scrubs as the company did before becoming fully automated.

◆ A 2020 survey of corporate executives revealed that 80 percent of them had implemented some form of robotic process automation (RPA), and another 16 percent said they planned to do so within three years. A bot can be built for around \$10,000 and can eliminate between two and four jobs. RPA sales increased by 12 percent last year. State Auto Insurance Companies, for example, has used RPA to do 173,000 hours of work in areas such as underwriting and human resources.

◆ Amazon and Starbucks teamed up to create a cashier-free café in New York City, based on the Amazon Go model of taking online orders, preparing the orders and making them available when customers enter the store. The system also allows walk-in customers to pull things from the shelf and be billed automatically. The system will charge customers' accounts on Amazon One.

◆ Three-dimensional (3D) printers are building all the houses in entire neighborhoods in Mexico and Southern California, using labor only for installation of appliances and some finishes.

◆ The company Canvas has created an artificial-intelligence robot that can install drywall at a construction site faster than humans; this robot has already been used at the Chase Center in San Francisco as well as at a terminal at that city's airport.

◆ Built Robots provides construction sites with autonomous machines that work as diggers and dozers.

A study by the National Bureau of Economic Research revealed that between 50 and 70 percent of wage declines in the U.S. can be attributed to blue-collar workers being displaced by automation.

◆ Doxel makes a mobile robot that uses a 3D camera to survey a construction site and determine how well a project is progressing.

◆ Carbon Robotics offers a farming robot that surveys fields, identifies weeds and uses a laser flash to kill the weeds.

◆ A Ford transmission plant in Michigan, in which robots help assemble torque converters, recently added artificial-intelligence software in the plant to figure out more efficient ways to install various pieces into the converters.

◆ This year through July, companies made nearly seven million automated deliveries worldwide via low-speed autonomous vehicles, which can carry loads of more than 500 pounds and move on roads or sidewalks.

◆ El Pollo Loco in Southern California uses Flytrex's drones to make food deliveries. The drones travel about 32 miles per hour and use a wire to lower food orders to the customer. Similarly, Grubhub is using robots created by Yandex to deliver food orders on college campuses.

◆ Global sales of medical robots increased by 28 percent between 2018 and 2019, even before the pandemic started.

◆ Business investment in information-processing equipment from January to June this year increased by 16 percent over the same period in 2020, after averaging four percent annual increases over the prior decade.

◆ Hour One uses people's likenesses to create an artificial-intelligence-based voiced character to be used in marketing and educational videos for businesses; the company has more than 40 clients, in industries such as real estate, digital healthcare, entertainment and e-commerce.

◆ Geek+ operates a smart factory, using robots to produce other robots.

(*Fast Company*, 6/1/21 and 9/1/21; *Associated Press*, 10/8/21; *New York Times*, 3/6/21 and 11/28/21; *Automotive News Shift*, 3/21; *CNBC*, 11/4/21; *Dallas Morning News*, 7/16/21; *ABC*, 11/18/21; *Ars Technica*, 11/22/20 and 5/1/21; *CNN*, 8/19/21; *Wall Street Journal*, 7/6/21 and 10/14/21; *Automotive News*, 7/26/21; *Nation's Restaurant News*, 7/21; *MIT Technology Review*, 7/9/21 and 8/27/21)



"We're a totally automated facility, except for Frank. He plugs everything in each morning."

The range of automation is expanding beyond fast-food businesses to more complicated jobs, such as traditional trade work in construction and factory operations, cashiers' functions in store checkouts, warehouse pickers and packers, robot production and actors and entertainers. On that last item, model agencies have surfaced to represent virtual models, and talent agencies now handle virtual musicians and singers. Job displacement will continue to spread, with, for instance, autonomous vehicles in the not-too-distant future replacing delivery-service and truck drivers, seafaring workers, airline personnel and dockworkers. (*Fast Company*, 10/5/21)

More training and education will be necessary to fill the sophisticated jobs required to keep the software and robots operational, but those numbers will not equal the numbers of individual workers they displace. At some point, the reluctance of workers to take jobs will cross with the automation of those same jobs. What happens then?

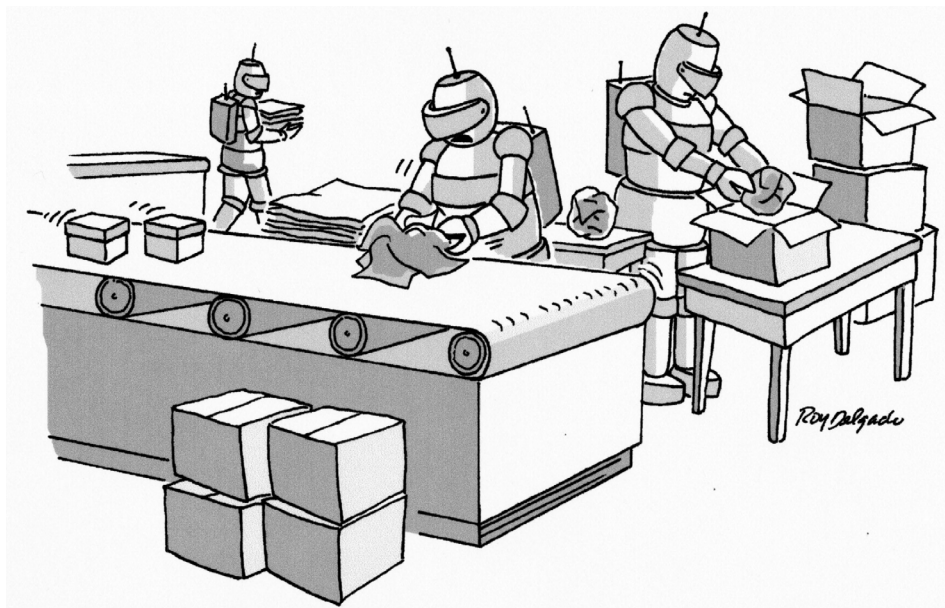
The Future of Business...and Work

Automation has already caused problems for workers. A study by the National Bureau of Economic Research revealed that between 50 and 70 percent of wage declines in the U.S. can be attributed to blue-collar

workers being displaced by automation. For instance, real earnings of men without college educations were, as of this past June, 15 percent below what they were in 1980. Meanwhile, job displacement by artificial intelligence will require the upskilling of more than 11.5 million American workers. (*Forbes*, 6/18/21)

The threat of changes in the labor force and its potential to alter tastes in popular culture has worried even the most successful influencers. For instance, this past summer, a troop of teenage boys lived in a so-dubbed TikTok mansion in Los Angeles, labelled the Clubhouse, and in exchange for their room and board and money secured from brands, the group had to post two to three videos per day. They were at the peak of influencer status. Yet they were worried. As one of the club's members explained: "The scary thing is you never know how long this is going to last, and I think that's what eats a lot of us at night. It's like: 'What's next?' How long can we entertain everyone for? How long before no one cares, and what if your life was worth nothing?" In the anxious society, individuals enjoying the benefits of the current digital world still worry about their near-term future. (*Harper's*, 6/21)

This anxiety seems to motivate more and more individuals to take risks, including converting side hustles into jobs, making equity bets and buying and selling cryptocurrencies. Adding to workers' anxiety is the fact that while wages and salaries increased 4.2 percent in the year through September, consumer prices jumped 5.4 percent during the same period, with rents across the country spiking 16.4 percent and insurance premiums jumping more than 20 percent in some places. At the same time, retailers must deal with escalating expenses as well, with Dollar Tree, for instance, having to announce that its original one-dollar price tags would have to increase to \$1.25. Meanwhile, larger businesses continue to add automation to their operations, slowly eroding the size of the job market while ensuring their own viability. (*New York Times*, 11/6/21)



"This is okay, but my ambition is to be an automatic teller."

The current labor situation bears some resemblance to the current energy situation. While the economy is moving toward renewable energy, it has a ways to go to get there, and in the interim, state-owned oil and gas companies are in a situation that enables them to increase prices. Similarly, while the economy is moving more and more toward automation, it has a ways to go before it gets there, and in the interim, human labor can demand higher wages and salaries, better working conditions and improved benefits. Governments have announced a release of oil and gas from their national reserves to limit economic damage from higher gasoline prices, and governments have also supplied substantial amounts of money to support workers during the pandemic, leading individuals to reassess their relationship to work. That has led to a rethinking of how workers can earn money after automation substantially reduces the size of the needed workforce as well as squeezing wages.

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◆ Mayors of 44 American cities have signed on to the Mayors for a Guaranteed Income movement. Already, St. Paul (MN), Richmond (VA), Stockton (CA), Patterson (NJ), Gary (IN), Jackson (MS), San Francisco

and Compton (CA) have launched pilot programs for guaranteed incomes. Atlanta just announced the start of a similar program. (*PBS*, 11/22/21; *Atlanta Journal-Constitution*, 11/20/21)

Such programs are being supported by private sources, such as Twitter founder Jack Dorsey, and recently some government grants. How would those kinds of programs get funded if they became national?

One source of money would be the taxation of robots and automation software, the reason for reduced availability of jobs. That levy might be hard to pass in Congress, but in the long term, the issue of many individuals being unable to find work and needing sufficient revenue to support the economy will become more and more critical, creating social as well as economic dislocations that could hamper society's capability of New Labor Getting Things Done.



"So, what does everyone think of XX81's suggestion for increased funding into AI research?"

Some of our previous looks at this topic:

inF 1617 True Influence, 11/29/21

inThought 9/7/21 Coming Out Of The Pandemic: Lessons Learned, Changed Habits And New Values

IF 4213 An Assisted-Living Economy: Money Comes From Everywhere, And Everyone Gets Assistance, 7/8/21

IF 4207 Welcome To A World Of Robotic Overlords: Fear Of Losing Jobs To Robots Is Displaced By Fear Of Robots Becoming The Boss, 5/3/21

IF 4205 Labor Redux: Conditions Converge In Favor Of Workers, 4/5/21

inThought 3/3/21 The Future Of Instability: Attention Battles And Jolting Transitions Make For Unpleasant Realities

inF 1603 Less Of This, More Of That: The Focus On Sustainability, 2/16/21

inF 1601 Hustling In The New Economy, 1/21/21

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