Hard at Work in th



By James H. Lee

uturists have long been following the impacts of automation on jobs—not just in manufacturing, but also increasingly in white-collar work. Those in financial services, for example, are being lost to software algorithms, intelligent computers, and robotics.

Terms used for this phenomenon include "off-peopling" and "othersourcing." As Jared Weiner of Weiner, Edrich, Brown recently observed, "Those jobs are not going to return—they can be done more efficiently and error-free by intelligent software."

In the investment business (in which I work), we are seeing the replacement of financial analysts with quantitative analytic systems, and floor traders with trading algorithms. Mutual funds and traditional portfolio managers now compete against ETFs (exchange-traded funds), many of which offer completely automated strategies.

Industries that undergo this transformation don't disappear, but the number of jobs that they support changes drastically. Consider the business of farming, which employed half the population in the early 1900s but now provides just 3% of all jobs. The United States is still a huge exporter of food; it is simply a far more efficient food producer now in terms of total output per farm worker.

In an ideal world, jobs would be plentiful, competitive, and pay well. Most job opportunities have two of these qualities but not all three. Jobs are disappearing, but there's still a future for work. An investment manager looks at how automation and information technology are changing the economic landscape and forcing workers to forge new career paths beyond outdated ideas about permanent employment.

Medicine, law, and finance are jobs that are both competitive and pay well. Retail, hospitality, and personal services are competitive but pay low wages. Unions often ensure that jobs pay well and are plentiful, only to later find that those jobs and related industries are no longer competitive.

Since 1970, manufacturing jobs as a percentage of total employment have declined from a quarter of payrolls to less than 10%. Some of this decline is from outsourcing, some is a result of othersourcing. Those looking for a rebound in manufacturing jobs will likely be disappointed. These jobs will probably not be replaced—not in the United States and possibly not overseas, either.

This is all a part of the transition toward a postindustrial economy.

Jeff Dachis, Internet consulting

legend and founder of Razorfish, coined the phrase "everything that can be digital, will be." To the extent that the world becomes more digital, it will also become more global. To the extent that the economy remains physical, business may become more local.

The question is, what is the future of work, and what can we do about it? Here are some ideas.

The Future of Work: Emerging Trends

Work will always be about finding what other people want and need, and then creating practical solutions to fulfill those desires. Our basic assumptions about how work gets done are what's changing. It's less about having a fixed location and schedule and more about thoughtful

e Jobless Future















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and engaged activity. Increasingly, this inspiration can happen anytime, anyplace.

There is a blurring of distinctions among work, play, and professional development. The ways that we measure productivity will be less focused on time spent and more about the value of the ideas and the quality of the output. People are also going to have a much better awareness of when good work is being done.

The old model of work provided an enormous level of predictability. In previous eras, people had a sense of job security and knew how much they would earn on a monthly basis. This gave people a certain sense of confidence in their ability to maintain large amounts of debt. The consumer economy thrived on this system for more than half a century. Location-based and formal jobs will continue to exist, of course, but these will become smaller slices of the overall economy.

The new trends for the workplace have significantly less built-in certainty. We will all need to rethink, redefine, and broaden our sources of economic security. To the extent that people are developing a broader range of skills, we will also become more resilient and capable of adapting to change.

Finally, we can expect that people will redefine what they truly need in a physical sense and find better ways of fulfilling their needs. This involves sharing and making smarter use of the assets we already have. Businesses are doing the same.

The outcome could be an economy that balances the needs between economic efficiency and human values.

Multitasking Careers

In Escape from Cubicle Nation (Berkley Trade, 2010), career coach Pamela Slim encourages corporate employees to start a "side hustle" to try out new business ideas. She also recommends having a side hustle as a backup plan in the event of job loss. This strategy is not just for corporate types, and Slim says that "it can also be a great backup for small business owners affected by shifting markets and slow sales."

She says that an ideal side hustle is money-making activity that is doable, enjoyable, can generate quick cash flow, and does not require significant investment. Examples that she includes are businesses such as Web design, massage, tax preparation, photography, and personal training.

The new norm is for people to maintain and develop skill sets in multiple simultaneous careers. In this environment, the ability to learn is something of a survival skill. Education never stops, and the line between working and learning becomes increasingly blurred.

After getting her PhD in gastrointestinal medicine, Helen Samson Mullen spent years working for a pharmaceutical company—first as a medical researcher and then as an independent consultant. More recently, she has been getting certifications for her career transition as a life coach.

Clinical project management is now her "side hustle" to bring in cash flow while she builds her coaching business. Meanwhile, she's also writing a book and manages her own Web site. Even with so many things happening at once, Helen told me that "life is so much less crazy now than it was when I was consulting. I was always searching for life balance and now feel like I'm moving into harmony." Her husband, Rob, is managing some interesting career shifts of his own, and is making a lateral move from a 22-year career in pharmaceuticals to starting his own insurance agency with State Farm.

Fixed hours, fixed location, and fixed jobs are quickly becoming a thing of the past for many industries, as opportunities become more fluid and transient. The 40-hour workweek is becoming less relevant as we see more subcontractors, temps, freelancers, and self-employed. The U.S. Government Accountability Office estimates that these "contingent workers" now make up a third of the workforce. Uncertain economics make long-term employment contracts less realistic, while improvements in communications make it easier to subcontract even complex jobs to knowledge workers who log in from airports, home offices, and coffee shops.

Results-Only Workplace Environments

Imagine an office where meetings are optional. Nobody talks about

how many hours they worked last week. People have an unlimited amount of vacation and paid time off. Work is done anytime and anywhere, based entirely on individual needs and preferences. Finally, employees at all levels are encouraged to stop doing anything that is a waste of their time, their customers' time, or the company's time.

There is a catch: Quality work needs to be completed on schedule and within budget.

Sound like a radical utopia? These are all basic principles of the Results Only Work Environment (ROWE), as pioneered by Cali Ressler and Jody Thompson while they were human resource managers for Best Buy.

It's "management by objective" taken to a whole new level, Ressler and Thompson write in their book, Why Work Sucks and How to Fix It (Portfolio, 2008).

Best Buy's headquarters was one of the first offices to implement the ROWE a little over five years ago, according to Ressler and Thompson. The movement is small, but growing. The Gap Outlet, Valspar, and a number of Minneapolis-based municipal departments have implemented the strategy. Today, 10,000 employees now work in some form of ROWE.

Employees don't even know if they are working fewer hours (they no longer count them), but firms that have adopted the practice have often shown significant improvements in productivity.

"Thanks to ROWE, people at Best Buy are happier with their lives and their work," Ressler and Thompson write in their book. "The company has benefited, too, with increases in productivity averaging 35% and sharp decreases in voluntary turnover rates, as much as 90% in some divisions."

Interestingly enough, the process tends to reveal workers who do not produce results, causing involuntary terminations to creep upward. ROWE managers learn how to treat their employees like responsible grown-ups. There is no time tracking or micromanagement.

"The funny thing is that once employees experience a ROWE they don't want to work any other way," they write. "So employees give back. They get smarter about their work because they want to make sure they get results. They know that if they can deliver results then in exchange they will get trust and control over their time."

Co-Working

There are now more alternatives to either working at home alone or being part of a much larger office. Coworking spaces are shared work facilities where people can get together in an officelike environment while telecommuting or starting up new businesses.

"We provide space and opportunity for people that don't have it," Wes Garnett, founder of The coIN Loft, a co-working space in Wilmington, Delaware, told me.

Getting office space in the traditional sense can be an expensive proposition—with multiyear leases, renovation costs, monthly utilities. "For \$200 [a month], you can have access to presentation facilities, a conference room, and a dedicated place to work." And coIN Loft offers day rates for people with less-frequent space needs.

According to Garnett, more people are going to co-working spaces as "community centers for people with ideas and entrepreneurial inclinations." He explains that co-working spaces provide a physical proximity that allows people to develop natural networks and exchange ideas on projects.

"We all know that we're happier and more productive together, than alone" is the motto for nearby Independents Hall in Philadelphia.

Co-working visas enable people to choose from among 200 locations across the United States and in three dozen other countries.

Silicon Colleagues

Expert systems such as IBM's Watson are now "smarter" than real people—at least on the game show *Jeopardy*. It was a moment in television history when Watson decimated previous human champions Ken Jennings and Brad Rutter on trivia questions, which included categories such as "Chicks Dig Me."

IBM's Watson is a software-based knowledge system with unusually robust voice recognition. IBM has stated that its initial markets for the technology are health care, financial services, and customer relations. In the beginning, these systems will work side-by-side with human agents, whispering in their ear to prompt them with appropriate questions and answers that they might not have considered otherwise. In the next decade, they may replace people altogether in jobs that require simple requests for information.

"It's a way for America to get back its call centers," futurist Garry Golden told me. He sees such expert systems reaching the workplace in the next two to three years.

Opting Out

A changing economy is causing people to rethink their priorities. In a recent survey by Ogilvy and Mather, 76% of respondents reported that they would rather spend more time with their families than make more money.

Similarly, the Associated Press has reported that less than half of all Americans say they are happy with their jobs.

Given the stresses of the modern workplace, it is not surprising that more people are simply "opting out" of the workforce. Since 1998, there has been a slight decline in the labor force participation rate—about 5% for men and 3% for women. This trend may accelerate once extensions to unemployment benefits expire. Some of these people are joining the DIY movement, and others are becoming homesteaders.

A shift back toward one-income households can happen when the costs of taxes, commuting, and child care consume a large portion of earnings. People who opt out are not considered unemployed, as they are no longer actively looking for paid work. Their focus often reflects a shift in values toward other activities, such as raising kids, volunteer work, or living simply. This type of lifestyle is often precarious and carries risks, two factors that can be mitigated through public policy that extends the social safety net to better

cover informal working as well as formal employment. But this way of life also carries rewards and is becoming a more and more attractive option for millions of people.

The Future of Work. Personified

Justin Caggiano is a laid-back rock-climbing guide whom my wife and I met during our last vacation in

the red canyons of Moab, Utah. He's also been guiding rafters, climbers, and hikers for the past six years.

We watched Justin scramble up the side of a hundredfoot natural wall called The Ice Cream Parlor, a nearby climbing destination that earned its name from keeping shaded and cool in the morning despite the surrounding desert. His wiry frame allowed him to navigate the canyon cliffs and set up the safety ropes in a fraction of the time that it took us to make the same climb later that day.

Justin's rock-climbing skills easily translated into work as an arborist during the off-season, climbing up trees and then cutting them from the top down to prevent damage to nearby buildings. Since graduating from college six years ago, he has also worked as an artisanal baker, a car-

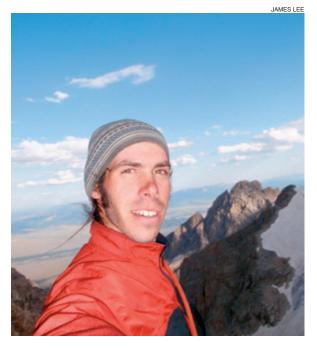
penter, and a house painter. This makes him something of a down-toearth renaissance man.

His advice is "to be as flexible as you can-and work your tail off."

It's an itinerant lifestyle for Justin, who frequently changes his location based on the season, work, and nearby climbing opportunities. Rather than committing to a single employer, he pieces together jobs wherever he can find them. His easygoing personality enables him to connect with people and find new opportunities when they become available.

In the winter, he planned to stay with a friend who is building a house, trading help with carpentry and wiring in exchange for free rent. He's been living on a shoestring for

a while now, putting away money every year. Longer term, he'd like to develop all of the skills that he needs to build his own home and then pay for land and materials entirely with savings from his bank account. He plans to grow fruit trees and become somewhat self-sufficient. After that time, he says, "I'll work when I'm needed, and live the debt-free, lowcost lifestyle when I'm older."



Justin Caggiano, a rock climber who shows how flexibility and hard work can lead to success even without a steady job.

Our concept of work is getting reworked. A career used to be a ladder of opportunities within a single company. For the postwar generation, the concept of "lifetime employment" was a realistic expectation. My father worked for 40 years at DuPont as a research scientist and spent almost all of that time at a sprawling complex called the Experimental Station. Most of my friends' parents had similar careers. Over time, they were gradually promoted and moved up the corporate ladder. At best, it was a steady progression. At worst, they found their careers stuck in neutral.

The baby boomers had a somewhat different career trajectory. They still managed to have a single career, but it more closely resembled a lattice than a ladder. After working for an employer for five to 10 years, they might find a better opportunity elsewhere and continue their climb. The successful ones cultivated networks at related businesses and continually found better opportunities for themselves.

The career path for younger generations more closely resembles a patchwork quilt, as people attempt

> to stitch together multiple jobs into something that is flexible and works for them. In today's environment, they sometimes can't find a single job that is big enough to cover all of their expenses, so, like Justin, they find themselves working multiple jobs simultaneously. Some of these jobs might match and be complementary to existing skills, while others may be completely unrelated.

> The future of work is less secure and less stable than it was. For many of us, our notions of employment were formed by the labor environment of the later twentieth century. But the reality of jobless working may be more in line with our values. If we can build support systems to benefit workers, wherever they are and whether they be formally employed or not, then we

may be able to view the changes sweeping across society as opportunities to return to a fuller, more genuine, and more honest way of life.

Justin's lesson is applicable to all of us; there's a difference between earning a living and making a life.



About the Author

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