

Getting ready for the future of work

Artificial intelligence is poised to disrupt the workplace. What will the company of the future look like—and how will people keep up?

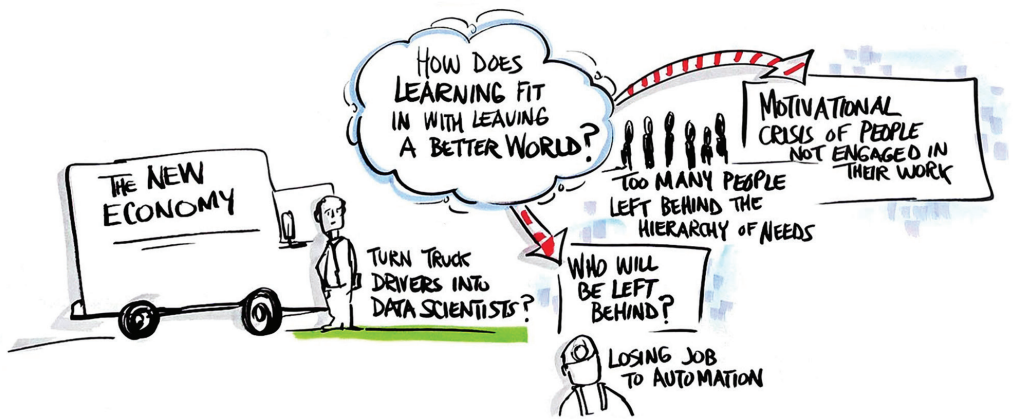
Work is changing. Digital communications have made remote work commonplace. The gig economy is growing. And advances in artificial intelligence (AI) and robotics could upend the conventional workplace. According to the McKinsey Global Institute, at least 30 percent of the activities associated with the majority of occupations in the United States could be automated—including knowledge tasks previously thought immune.¹

For workers of the future, then, the ability to adapt their skills to the changing needs of the workplace will be critical. Lifelong learning must become the norm—and at the moment, the reality falls far short of the necessity. The Consortium for Advancing Adult Learning & Development (CAALD), a group of learning authorities whose members include researchers, corporate and nonprofit leaders, and McKinsey experts, recently met in Boston for the second year in a row to assess the state of the workplace and explore potential solutions.

In a series of discussions, CAALD members addressed the challenges facing individuals and society, new ways to knit together learning and work, and the intriguing experiments that companies are undertaking to help workers adapt to change. (CAALD members also explored the potential for learning innovation in a set of related discussions. For more, see “Learning innovation in the digital age,” on [McKinsey.com](https://www.mckinsey.com).)

¹ For more information, see “Harnessing automation for a future that works,” McKinsey Global Institute, January 2017, on [McKinsey.com](https://www.mckinsey.com).

Adapting to a changing workplace



Graphic illustrations created by Leah Silverman, Crowley & Company

SOCIETAL CHALLENGES

Bob Kegan, William and Miriam Meehan Research Professor in Adult Learning and Professional Development, Harvard Graduate School of Education: The number of employees who are operating in more nonstandard, complex jobs is going to increase, while less complex work is going to be increasingly automated. The time it takes for people's skills to become irrelevant will shrink. It used to be, "I got my skills in my 20s; I can hang on until 60." It's not going to be like that anymore. We're going to live in an era of people finding their skills irrelevant at age 45, 40, 35. And there are going to be a great many people who are out of work. What are you going to do about that? Or is work going to essentially become an elite setting for more favored, privileged, complex people to live out meaningful lives? That's a disturbing question. It's hard for me to believe that we're going to have a society in which half the people just don't work. Work itself is intrinsically meaningful. People need to go to work every day.

Jason Palmer, general partner, New Markets Venture Partners: As a society, we have a big underinvestment in education and training for older folks. There is a misconception that it makes sense to spend \$300 billion to \$400 billion a year on college students between the ages of 17 and 25 and then very little after that. But most Americans who need higher education and postsecondary training are 35, 45, 55.

Maria Flynn, president and CEO, Jobs for the Future: In a country with such imperfect career navigation and lifelong-learning systems, plus the

growth of the gig economy, we could end up worse off if we don't start to change now. On a broad scale, we have to think about the intersection of economic mobility and the future of work, especially for those who are already left behind in today's economy. Without highly effective education and workforce-development systems, those groups will fall further behind. That's something that worries me an awful lot.

Amy Edmondson, Novartis Professor of Leadership and Management, Harvard Business School: We must view it as a race to develop institutions to support lifelong learning. We need to move fast because we're playing catch-up, and this is a much harder game to play; suddenly the numbers of people who need to learn fast are too big. Look at Greece and Spain, where half of the people in their 20s there are unemployed.

Two things that human beings don't do well are thinking about the future and thinking about the collective. The long term and the collective good will not naturally be taken care of by the decision making of individual workers. So a motivating force is needed to spur action, or else we slowly but surely will fail.

Claudio Feser, senior partner, McKinsey & Company: That's sobering, because it implies that leaving human beings to themselves and saying, in effect, "Take care of your own development" is probably not so fruitful. Whether it's the state or whether it's companies, that means we will have social engineers who create recommendations in which people are nudged, but also helped, to learn and advance.

NEW SKILLS NEEDED

Bob Kegan: Work will increasingly be about adaptive challenges, the ones that artificial intelligence and robots will be less good at meeting. There's going to be employment for people with growth mind-sets, but fixed mind-sets are going to be more and more replaceable by machines. We used to say things like, "You're going to have 6.5 jobs over the course of your career." We should also be saying, "You're going to have a number of qualitative shifts in your own growth and capacity over the course of your career." That might be with the same employer, or it might be with 6.5 different employers.

Bror Saxberg, vice president of learning science, Chan Zuckerberg Initiative: A lot of work that will continue to be of high value for people to do is tied to meaning making with other people. How does this decision, product, or service affect your life, your challenges, your family? The corollary is that we need to train everybody, early, on how to give meaning to other people's

challenges, work, skills, and needs to ensure they will have valuable work to do. And imagine how fun it would be to live in a world surrounded by people who are thinking professionally about your needs, not just theirs! This will require very intentional effort all through the growing-up years and beyond—it is not a thing you pick up the night before you start work.

Betsy Ziegler, chief innovation officer, Kellogg School of Management: One of the things that I've spent a lot of time thinking about is how we train our students to think of AI or the machine as a team member rather than as a competitive threat. A lot of the analyst work is being taken over by machines, for example, but that gives the MBA graduates access to higher-skilled work. I think there's a competitive advantage to being human. Given that the level of ambiguity is amplifying and the rate of change is increasing, what do people have to be equipped with? What tools do they need? We don't talk to them about that now. We don't teach any of them how to be a leader in the organization that is managing contractor talent or that is responsible for this fluidity of work. We should.

THE SOCIAL COSTS OF REMOTE WORK

Maria Flynn: The distributed model among knowledge workers brings challenges, something we are experiencing as Jobs for the Future continues to grow and scale. With more locations, we have more remote supervisors. When they send members of their teams into the field to work with our clients, it can be challenging to assess performance and competencies. We need a different skill set and strategies for the complexities of managing performance when managers and their teams aren't working in the same place. We need to think differently to keep remote workers engaged and connected when they're not in the same location as their manager.

Portia Wu, former assistant secretary, Employment and Training Administration, US Department of Labor: What you lose in being remote is the informal cross-fertilization, the knowledge you get because you hear someone talking about something by the watercooler: "You're doing that in Arizona? I have this problem in Maryland." This isn't just a problem for knowledge-based work. It's just as much a problem in manufacturing. There's a loss that you have in not being together in a physical work environment. And I do not know how to compensate for that.

Etienne van der Walt, CEO, Neurozone: At Neurozone, we don't have an office; we are in different cities and work in the cloud. I can honestly say

I miss my people. I want to smell them, unconsciously—because we need that. It's trust, it's a sense of belonging, and it's good. Because of this innate need, the gig economy may be creating a new organic network, a sort of new organization, flocking together at worktables and workstations in cafés, delis, and other outlets with great coffee. It will be interesting to learn more about the characteristics of these gatherings and tap into them.

Tamara Ganc, chief learning officer, Vanguard Group: With our workforce now more dispersed, we're leveraging technology so people don't need to be physically together to still connect live. For example, we often combine live, online training with offline collaboration and exercises following the learning event. We try to bring the online activities to life through the art of storytelling. One specific technique that has been successful is filming brief video vignettes of Vanguard leaders telling their life and career stories. As a result, our workers feel more connected to our leaders; that is, it tugs on their emotions a bit, even though they're not having a live conversation.

INSIDE THE COMPANY OF THE FUTURE

Bob Kegan: We all know work settings will need to be more agile, flexible, entrepreneurial, and creative—but on behalf of what priorities? At the top of the list, I'd suggest making the organization the most powerful incubator possible for the development of talent. You're never going to be able to hire and fire your way to the competencies you need. So you have to think about how work itself can foster talent.

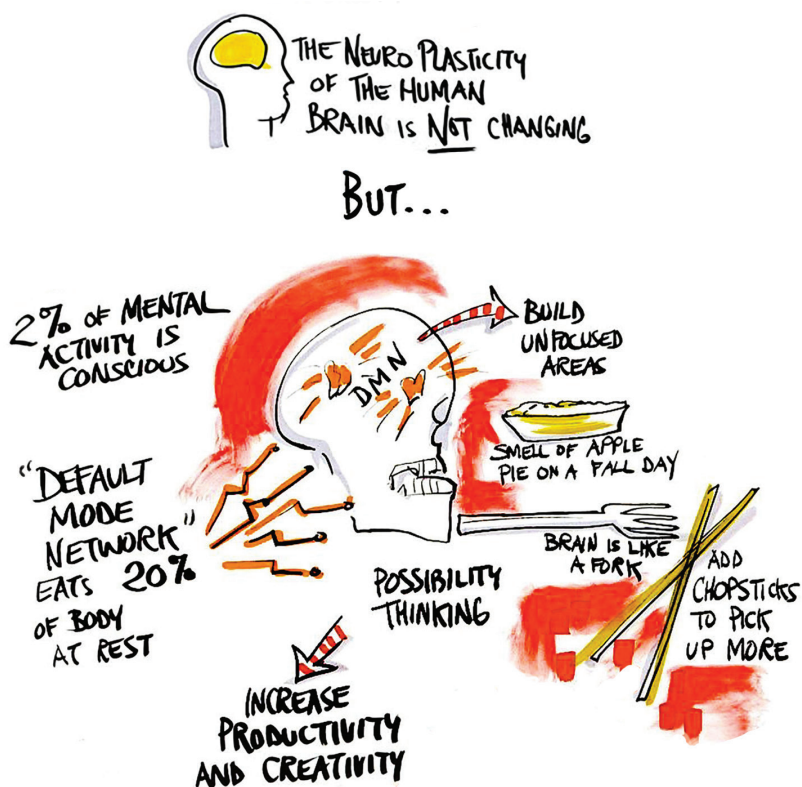
Bror Saxberg: I think there is a serious economic rationale for a business with a lot of low-wage people to be thinking strategically about the future of those people, even as it sheds low-wage jobs through automation. It's not just to promote the best of those low-wage folks to a new tier of cognitively more complex work—although that's part of the rationale. As human decision making becomes rarer, and also more complex with higher impact, it becomes increasingly valuable to attract the best talent. You'll do a better job attracting this talent if you have a reputation for taking care of people, even if you let some of them go. People at the company need to be preparing for and even cycling through many lower-, mid-, and upper-level jobs that remain to gain skills that will be useful even elsewhere. That way, really good people, at any level, looking at coming in to the company can say to themselves, "It's turbulent, like everywhere now, but this place goes out of its way to set people up for their next move." Great people would rather go to that company than to one that's mostly just firing.

Tamara Ganc: At Vanguard, we have a rotational culture, and I think that's one reason why employment tenure in our company is so long—people can post for a variety of roles, and these varied experiences help workers become more fungible and have what feels like many careers, all with the same organization. We are also piloting new ways to staff project work at Vanguard. For example, one of our employee-resource groups recently piloted a “gig economy” approach and said, “Here’s what we want to do for Vanguard over the next 12 months. Who wants to sign up?” The response was immediate.

STRETCHING MIND-SETS

Jeff Dieffenbach, associate director, Massachusetts Institute of Technology Integrated Learning Initiative: While change is accelerating, one thing that is definitely not is the neuroplasticity of the brain. In other words, the rate of change in the world may have surpassed the speed at which the human mind can process those changes. I love tech, I love innovative technology, but this machine—meaning our brain—can only go so far. That’s a big part of the crisis that we’re facing.

Managing **the brain's** energy budget



Graphic illustrations created by Leah Silverman, Crowley & Company

Srini Pillay, assistant professor, Harvard Medical School: If you say to people, “You need to adapt,” but you don’t help them learn how to build a change-oriented mind-set, it doesn’t really help. In fact, it hurts productivity. People confuse productivity with the need for constant focus. But that will not optimize brain function. Managing the brain’s energy budget requires going between focus and unfocus. When you unfocus, you activate the default-mode network—a key brain network responsible for energy management, creativity, memory, flexibility in thinking, and prediction of the future.

You can teach these mind-set shifts by teaching specific techniques—50 or 60 of them. Five to 15 minutes of napping, for example, creates clarity for one to three hours; 90 minutes of napping facilitates creativity. People say that creativity is one solution for managing challenges in the future. But when you look at unconscious associations to creativity, people associate it with vomit and agony. We need to address these unconscious, automatic associations and teach people how to override them.

DIGITAL NUDGES

Etienne van der Walt: Until a year ago, I was convinced that I could use online learning only for knowledge and for simple skills. I’m increasingly convinced that’s not the case. One organization I know of is using online tools to create mind-set shifts, and there are many of these kinds of things popping up. By giving you tasks, they force you to think positively about your day and they teach you to reframe certain things. And this is all done online. These may be microsteps, but they are steps, and these steps will become bigger.

Tamara Ganc: This reminds me of something our leadership-development team launched last year with behavioral nudging. We created what we call “whisper courses,” which were based on the premise that, as leaders, we have the best intentions yet get so busy and forget to do the many little things that matter so much. I recall us talking about how nice it would be to have this invisible “helper” who sat on our shoulder and whispered to us little reminders throughout the day, like, “Pssst . . . did you thank Bill?” or, “Pssst . . . did you remember to compliment Ann on her presentation yesterday?” To bring it to life, we simply used automatic emails as the helper. A leader can sign up in our learning-management system for a six-week series of nudges. On a Monday, you get a prompt related to the nudge series you signed up for—for example, recognition or coaching. That Friday, you get an email asking if you did it and to reflect on how it went. It influences behavior on a very granular level. 