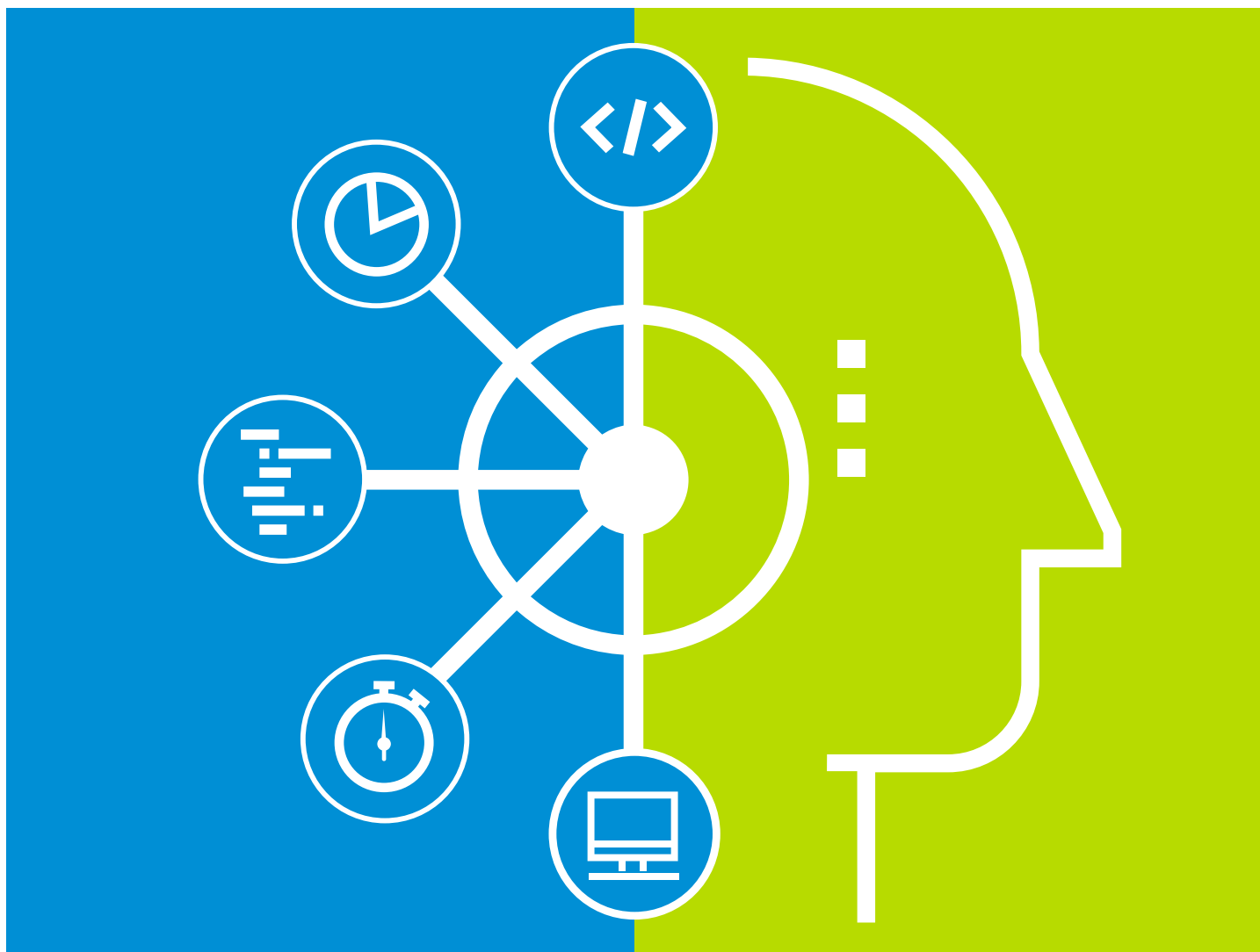


Today's fast-changing workplaces need employees who can keep up with advances in technology—and employers who can remove the obstacles to retraining.

# How to crack the skills dilemma

---



You're interviewing a candidate for a software development job in your organization. They bring great energy and a "vibe" that aligns with your company's culture. They communicate well. They show a high potential for leadership.

There's only one catch: They don't know one of the coding languages required to do the job.

That's the kind of dilemma faced every week by Ellen Petry Leanse, chief people officer at Lucidworks, a fast-growing, 250-employee company in San Francisco that makes search tools for massive data sets. But the solution doesn't have to be complicated, Leanse says. The only questions about candidates that really matter, she says, are, "Can they learn the skills, intellectually, cognitively?" And just as important: Is the organization set up to support that training?

Businesses have entered an era of constant change, Leanse says, which means it's an employee's job to be learning all the time, and a manager's job to remove obstacles to that learning.

"There are only three things that bring us real satisfaction in life, and any company that wants satisfied employees needs to know this," she says. "Relationships: interpersonal connections, things that make us feel like we belong. Contribution: the ability to offer something of ourselves that feels worthy and valuable to others or to the organization. And growth: the opportunity to be acquiring new abilities that help us move further along that path to who we really want to be, to that higher version of ourselves. If we have a culture that allows relationships, contributions, and growth, then reskilling is the easy part."

### The need to upskill

Gone are the days when retraining was solely a challenge for blue-collar workers displaced by globalization or automation. In a 2017 McKinsey study, large-company CEOs said that by the year 2023, technological change



## Key takeaways

- 1 Technological advances, plus a shortage of skilled workers, are forcing organizations to "upskill" the workers they have, teaching them new proficiencies.
- 2 Organizations that encourage upskilling among their workforces find their employees are happier, more engaged, and, in turn, more productive.
- 3 To cultivate new talent within their workforces, organizations need the right technologies and approaches – and they need to create an atmosphere that's conducive to learning and personal growth.

**"If we have a culture that allows relationships, contributions, and growth, then reskilling is the easy part."**

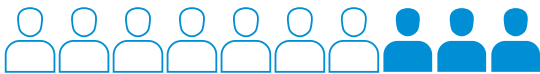
Ellen Petry Leanse, Chief People Officer, Lucidworks

will force them to either retrain or replace up to a quarter of their knowledge workers! So it's no surprise that there's new emphasis in corporate America on the role of learning in the employee experience.

Part of the explanation is that more managers are coming to share Leanse's understanding that employees work best when they're seen not as cogs in a profit machine, but as individuals with hopes and dreams.

Another part of it is the talent squeeze. Companies need more and better-trained workers to meet demand, but rapid technological change means there aren't always enough job applicants with the skills companies need. Senior executives surveyed by Gartner in late 2018 cited this talent shortage as their top worry.<sup>2</sup> "Not only are there fewer folks in the pipeline," says Donna Kimmel, chief people officer at Citrix, in Fort Lauderdale, Florida. "You also have more companies competing for the same talent."

And at the same time, continuous advances in technology mean that even if an employee is qualified when they walk in the door, their company might need people with different skills 12, 24, or 36 months down the road. In other words, the pace of innovation is predictable, but the direction isn't – so what's important is to build a workplace in which employees are willing and able to "upskill," or add new proficiencies, on a just-in-time basis.



**70%** of employees say they haven't mastered the skills they need for their jobs today.



**80%** of employees say they lack the skills they need for their current roles and their future careers.

Source: Gartner's 2018 Shifting Skills Survey

Gartner calls readiness to upskill "digital dexterity,"<sup>3</sup> consulting company PwC calls it "digital fitness,"<sup>4</sup> and Stanford professor Carol Dweck calls it the "growth mindset."<sup>5</sup> Whatever the name, companies that foster it benefit from greater employee engagement and satisfaction. According to Gartner, employees who stay in tune with in-demand skills are 66% more engaged in their work than their peers.<sup>6</sup>

With happier employees, productivity goes up, and that means better business. In fact, improved productivity is the leading benefit at companies that emphasize the employee experience, according to 1,145 senior business executives surveyed in 2019 by the Economist Intelligence Unit.<sup>7</sup> (Some 43% of executives named it an outcome of an improved employee experience.)

## Developing talent in-house

What's clear is it's not enough to hire a workforce full of tech-savvy learners. Companies also must create an environment where they can exercise their dexterity. That's why experienced leaders and managers say it's important to build a company culture in which employees:

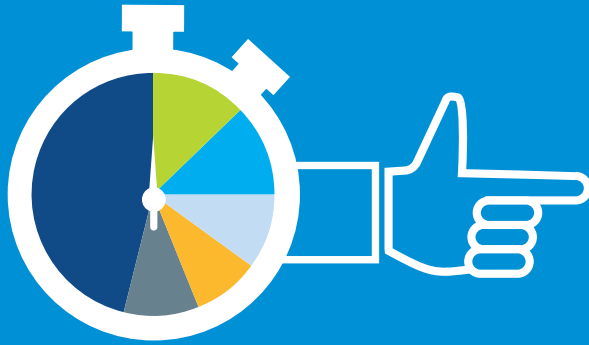
- Are encouraged to learn new skills, even those that may not seem work-related;
- Have access to high-quality learning programs and platforms;
- Are free to learn in whatever way is most effective for them;
- Feel empowered to act as teachers, mentors, and coaches; and
- Have permission to experiment and to learn from failure.

Kimmel says Citrix has learned many of these lessons through experience. The company, known for its networking and digital workspace systems, began its digital transformation in 2015. This meant Citrix had to reframe its own approach to hiring and training. "There have been times in this three-and-a-half-year journey where a heavier percentage of our time was focused on bringing in expertise from the outside," Kimmel says. "That has started to shift to making sure that we're developing that talent within the organization."

There are a multitude of ways to do that, Kimmel says. The company offers full-day, classroom-style workshops, often in collaboration with business partners like Microsoft.

## Time for a change

As companies adopt new technologies, and job roles morph, more than half of employees worldwide will require significant reskilling or upskilling.



- 13% Training will take less than 1 month
- 12% Training will take 1–3 months
- 10% Training will take 3–6 months
- 9% Training will take 6–12 months
- 10% Training will take more than 1 year
- 46% No training needed

Source: World Economic Forum's Future of Jobs Survey 2018

Any Citrix manager or employee with relevant expertise is encouraged to prepare a “LED Talk” for peers (the presentations are modeled on TED talks; at Citrix the acronym stands for “leader-engaged dialog”). And the company subscribes to an online learning-management platform called Saba that offers content in a variety of formats, including self-paced videos and mobile-optimized “micro learning breaks.” “We wanted to make sure that, from a diversity perspective and from a learner-preference perspective, we were providing all different kinds of options,” Kimmel says.

Leanse, at Lucidworks, says companies should lean into the learning platforms employees already use and like. “Recently, LinkedIn Learning came to us and said, ‘Hey, do you realize that you have 54 employees in your company who are using this platform, and they’re watching something like 3,000 hours’ worth of information a year and paying for it themselves?’ I was like, ‘Oh my gosh, I’m buying this for the whole company.’ People are loving it, and I’m paying attention to what employees are learning, because it’s a gold mine.”

Some companies find they need to create protected time or space for learning. “You might say, ‘OK, for 20% of your time you are going to work on an advanced analytics

“The bottom line is often you need to create new spaces and entities ... and with time, transition this into the core of the company.”

Cris De Luca, Global Director of Digital Innovation, Johnson & Johnson Innovation

project in a team of, say, five or six people,” suggests Himanshu Jain, principal data scientist at Aetna, a CVS Health company. “You are going to work with people who already have these skills, and the project is very open-ended so that you can see what you want to learn. In your regular projects you don’t have time, but in this arena you are free to try what you want.”

A related approach is to set up an “innovation-focused division” with a mix of internal and external talent, says Cris De Luca, global director of digital innovation at

Johnson & Johnson Innovation. Staff can rotate through such a division and engage in mentoring programs and “stretch” assignments. “The key is to find the balance between being separate enough to be transformational, but integrated enough to be adopted and true to the foundational culture,” De Luca says. “The bottom line is often you need to create new spaces and entities ... and with time, transition this into the core of the company.”

## Bolder, braver, happier employees

Let’s say you already have a workforce full of courageous, curious self-starters who love to learn, and you’ve given them access to the right learning environments and training materials. They still won’t advance unless their managers buy into the growth mindset, Leanse says. To get employees to take risks and embrace growth, “The number-one thing is that people feel they are part of an organization that cares about them – where there is candor and honesty and a sense of shared wins as you accomplish things together,” she says.

Evaluation systems must change as well. “What does it take to move from judging people using the old rating and ranking systems to having continuous feedback and continuous dialog?” Kimmel asks. “As we go forward, it’s about developing our leaders to be part of that feedback

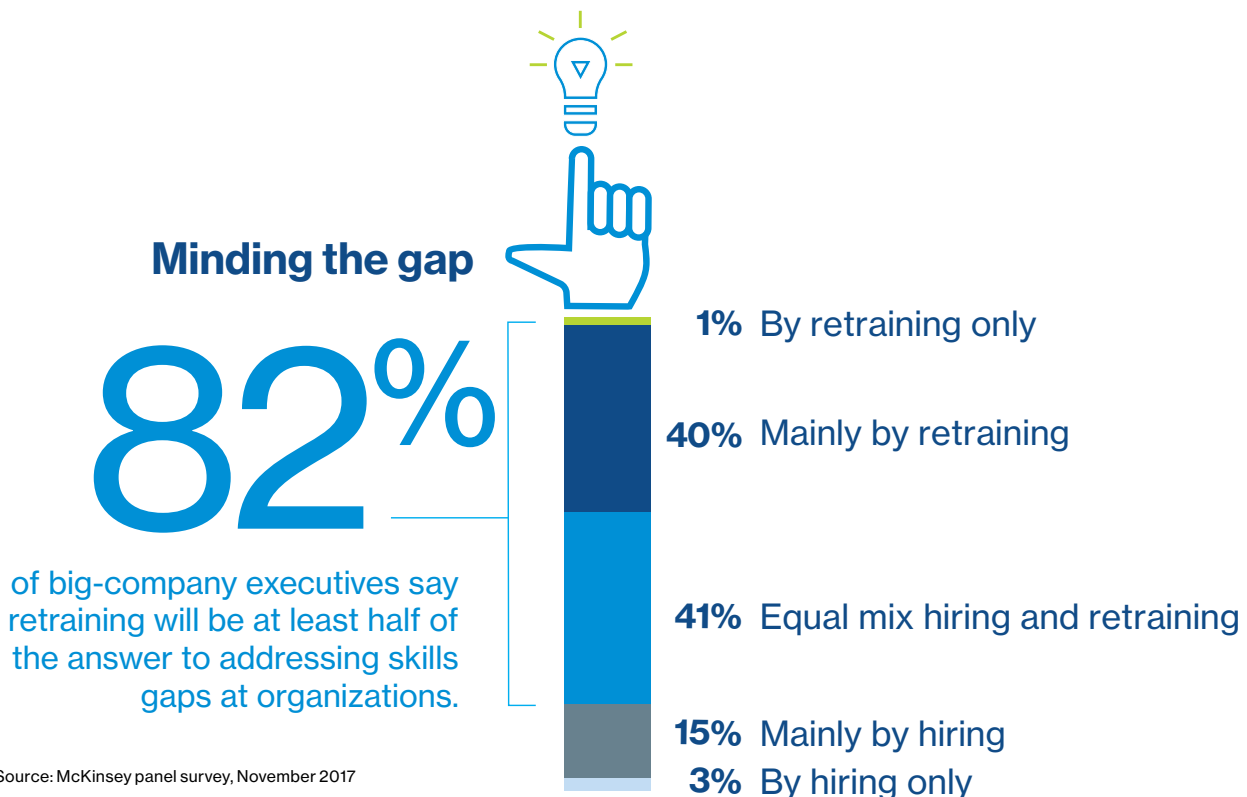
and support learning. Because the more that their team members are out there upskilling and taking on new kinds of projects, the more managers have to work with those employees to balance schedules.”

And it’s not just about making time for continuous learning. In growth-oriented companies, Leanse says, managers encourage candor, share wins, avoid psychological game-playing, and give employees room to take risks and occasionally fail.

## A shared responsibility

In sum, creating a culture of personal growth requires multiple elements: the right technologies, including learning platforms; the right practices and expectations among managers; and the right policies for hiring, training, and evaluation. That means it’s a project that cuts across the traditional lines between departments. “What’s new here is the recognition that talent transformation – to embrace digital dexterity – is a shared responsibility of IT, HR, and the functional business units,” write Gartner analysts Matthew Cain and Mark Gotta, two originators of the “digital dexterity” concept.<sup>8</sup>

“HR folks need to learn a bit more about technology, and the technology people need to learn a bit more about



human capacity for change,” Kimmel confirms. And at companies where information technology and human resources departments are collaborating, the priority is providing more digital skills training for employees – a need cited by 37% of respondents in the Economist Intelligence Unit survey.

All of that can put a financial strain on companies, acknowledges David Barker, director of cybersecurity for products at Stanley Black & Decker. “We’re paying for training, and we’re paying our employees to go through the training,” he says. “So now, an organization that may already be understaffed or lean needs to take on the direct burden of bringing someone up to speed.” All that effort will eventually result in more productive teams, but for companies to get comfortable making the investment, it’s important for workers to step up, too, he says. “Employees need to put some skin into the game through external education, investment of their own time in inexpensive or free online training, and possibly college-style live courses,” Barker says.

It’s hard work, with outcomes that are hard to measure in the short term. But at companies where the culture is founded on a growth mindset, everyone feels more engaged and valued, and everyone can make more meaningful (and profitable) contributions. Under those conditions, experienced managers say, upskilling becomes almost automatic.

## “What does it take to move from judging people using the old rating and ranking systems to having continuous feedback and continuous dialog?”

Donna Kimmel, Chief People Officer, Citrix

So, would Lucidworks hire a software developer who didn’t know the language in which they’d be coding?

In a heartbeat, Leanse says – assuming the candidate is willing to learn the specific skills. “It’ll take one, two, three months, but we’ll get an employee who’s going to be a star for years,” she says. “We always favor the belief that people are able to upskill. It’s really about having an emotionally healthy and psychologically safe place to work, where part of the reason you are at the company is to grow to improve your skills over time. And what’s blowing our minds [at Lucidworks] right now is how well that is working.”

*How to crack the skills dilemma* is an executive briefing paper by MIT Technology Review Insights. It is based on research and interviews conducted in May and June 2019. We would like to thank all participants as well as the sponsor, Citrix. MIT Technology Review Insights has collected and reported on all findings contained in this paper independently, regardless of participation or sponsorship.

## About MIT Technology Review Insights

MIT Technology Review Insights is the custom publishing division of *MIT Technology Review*, the world's longest-running technology magazine, backed by the world's foremost technology institution – producing live events and research on the leading technology and business challenges of the day. Insights conducts qualitative and quantitative research and analysis in the US and abroad and publishes a wide variety of content, including articles, reports, infographics, videos, and podcasts. And through its growing MIT Technology Review Global Panel, Insights has unparalleled access to senior-level executives, innovators, and thought leaders worldwide for surveys and in-depth interviews.

## From the sponsor

Citrix (NASDAQ:CTXS) is powering a better way to work with unified workspace, networking, and analytics solutions that help organizations unlock innovation, engage customers, and boost productivity, without sacrificing security. With Citrix, users get a seamless work experience, and IT has a unified platform to secure, manage, and monitor diverse technologies in complex cloud environments. Citrix solutions are in use by more than 400,000 organizations, including 99% of the Fortune 100 and 98% of the Fortune 500.



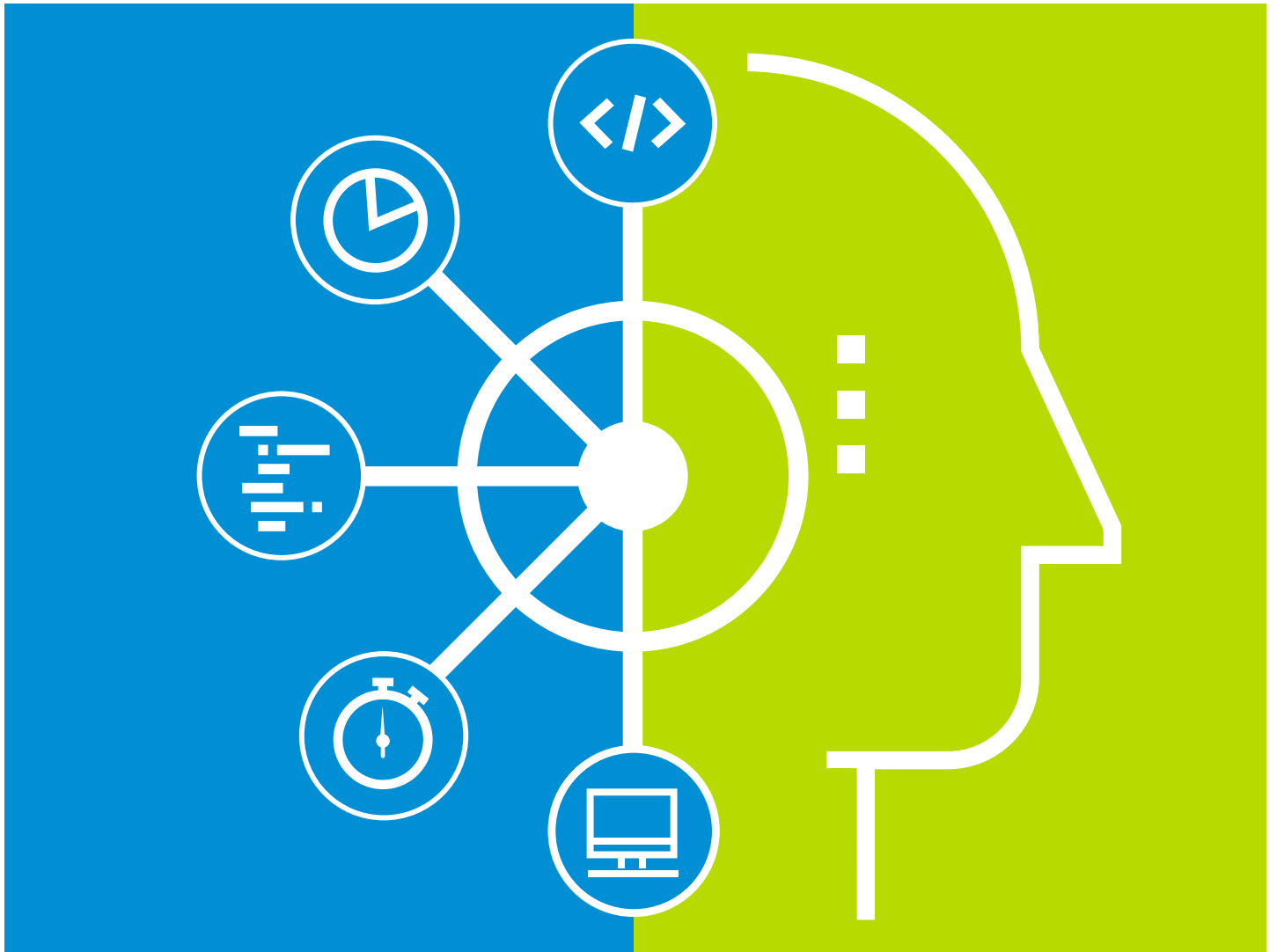
### Footnotes

1. Pablo Illanes, Susan Lund, Mona Mourshed, Scott Rutherford, and Magnus Tyreman, "Retraining and reskilling workers in the age of automation," McKinsey & Company, January 2018, <https://www.mckinsey.com/featured-insights/future-of-work/retraining-and-reskilling-workers-in-the-age-of-automation>.
2. "Gartner Survey Shows Global Talent Shortage Is Now the Top Emerging Risk Facing Organizations," (press release) Gartner, Jan. 17, 2019, <https://www.gartner.com/en/newsroom/press-releases/2019-01-17-gartner-survey-shows-global-talent-shortage-is-now-the-top-emerging-risk-facing-organizations>.
3. "Gartner Says Too Few Organizations Have the Digital Dexterity to Adopt New Ways of Work Solutions," (press release) Gartner, June 20, 2018, <https://www.gartner.com/en/newsroom/press-releases/2018-06-20-gartner-says-too-few-organizations-have-the-digital-dexterity-to-adopt-new-ways-of-work-solutions>.
4. PwC's "Digital Workforce Transformation," PwC, <https://digital.pwc.com/en/products/digital-fitness.html>.
5. Carol Dweck, *Mindset: The New Psychology of Success*. (New York: Ballantine Books, 2007).
6. Mary Baker, "Motivate Employees to Reskill for the Digital Age," Gartner, March 18, 2019, <https://www.gartner.com/smarterwithgartner/motivate-employees-to-re-skill-for-the-digital-age/>.
7. "The experience of work: The role of technology in productivity and engagement," Economist Intelligence Unit, 2019, 25.
8. Matthew Cain and Mark Gotta, "Employee Digital Dexterity Is an Essential Element of the Next-Generation Workforce," Gartner, March 11, 2019, 6.

### Illustrations

Cover, page 6 illustration by Bloomicon, Shutterstock, modified by Scott Shultz Design. Pages 4 and 5 illustration elements by Ideyweb, Shutterstock.

*While every effort has been taken to verify the accuracy of this information, MIT Technology Review Insights cannot accept any responsibility or liability for reliance by any person in this report or any of the information, opinions, or conclusions set out in this report.*



## MIT Technology Review Insights

 [insights.techreview.com](https://insights.techreview.com)

 @techreview @mittr\_insights

 [insights@technologyreview.com](mailto:insights@technologyreview.com)