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“The majority of people who took a new job last year weren’t searching for one. Somebody came and got them.”

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Photograph by JOHN KUCZALA

COVER PHOTOGRAPH
Jarren Vink
#DontCrackUnderPressure

MONACO CALIBRE 11 AUTOMATIC CHRONOGRAPH

Steve McQueen’s legacy is timeless. More than an actor, more than a pilot, he became a legend. Like TAG Heuer, he defined himself beyond standards and never cracked under pressure.
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ESG Comes of Age

For years corporate leaders have acknowledged that business should play a role in addressing urgent challenges like climate change and cybersecurity. But for all their good intentions, these executives have also recognized that environmental, social, and governance matters are a secondary concern for their biggest investors. Executives may want to manage for the long term, but they believe that the market demands they keep their eye on quarterly results.

That’s changing. “The impression among business leaders is that ESG just hasn’t gone mainstream in the investment community. That perception is outdated,” say Said Business School’s Bob Eccles and the World Bank’s Svetlana Klimenko. In “The Investor Revolution” (page 106), the two present the most persuasive evidence yet that institutional investors are making ESG a priority. In interviews with leaders of dozens of investment firms, the authors found that “ESG was almost universally top of mind.” In fact, many had committed to systematically integrating ESG considerations into their investment decisions.

Shareholders, say Eccles and Klimenko, are now holding corporate leaders accountable for ESG performance. The authors warn that executives who don’t consider the long-term impact of their actions on the world will be punished by the markets while those who do address it will be rewarded. And that is the surest way to close the gap between good intent and practice.

Adi Ignatius
Editor in chief
Nathalie Gaveau.
Entrepreneur and one of Europe's top 50 women in Technology 2018 (Forbes).

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Robert Eccles, a visiting professor at Said Business School at the University of Oxford, has been listening for years to CEOs’ complaints that investors don’t reward them for their sustainability efforts. That’s about to change, Eccles says. He and his coauthor in this issue recently interviewed leaders at many of the world’s largest asset owners and asset managers. Their findings suggest that sustainable investing has gone mainstream. His message to CEOs? “Be careful what you wish for, because investors are going to start looking hard at your ESG performance.”

Last year a professional services firm asked Tiziana Casciaro, a professor of organizational behavior at the University of Toronto, to help its various groups bridge the divides between them so that they could better deliver integrated expertise to clients. In doing so, she spoke about her own research on curiosity and about complementary work by Amy Edmondson and Sujin Jang. “I got so much love for that talk,” she says, that she suggested the three of them team up to produce the article in this issue.

Walter Frick studied political science in college, but when the Great Recession hit, a year after he graduated, he spent hours reading economics blogs and think-tank papers, trying to understand what had caused it and what to do about it. “A lot of the work I’ve done for HBR can be traced back to that time,” he says. Frick, the deputy editor of HBR.org, reports in this issue on new research describing what companies can do to prepare for a recession.

As a professor of strategy at Wharton, Nicolaj Siggelkow is often asked what’s new in the field. His first response is always the same: nothing. “The fundamentals of strategy and competitive advantage are immutable,” he says. But that’s not his whole answer. “What’s changing is how firms create a competitive advantage. They’ve shifted from episodic interactions with customers to always being connected.” Writing with his Wharton colleague Christian Terwiesch, Siggelkow explores how this change came about and how companies can succeed in view of it.

When choosing which hues to use for a piece of art, Kirsten Ulve asks herself, “Would these colors taste good together?” Her “candy-flavored” illustrations are inspired by mid-century design, classic cartoons, and MGM musicals from the 1950s. Ulve says, “I love drawing for a real issue; there’s an unnatural, toxic element to bright colors that kind of fits this subject.”
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IN THEORY

WHEN SCANDAL ENGULFS A CELEBRITY ENDORSER
Four factors should guide firms’ reactions.

IN DECEMBER OF 2009 marketers at Accenture, AT&T, Gatorade, General Motors, Gillette, Nike, TAG Heuer, and other companies faced a difficult decision. After tabloid reports of infidelity and an alleged altercation with his wife that ended in a car crash, Tiger Woods—who had endorsement deals with those firms—publicly (if vaguely) apologized for his behavior and announced that he was taking an indefinite leave from golf. The following days brought more salacious stories. Should
the companies abandon Woods or stay the course? Over the next few weeks investors in firms that used Woods in advertisements lost $12 billion as share prices fell. For managers at those companies, the question became: How to mitigate the damage?

Previous research has shown that firms tend to suffer financially when a celebrity endorser becomes mired in scandal. But the literature offered no practical guidance. “Nobody had ever looked at what firms could do to counter the losses,” says Stefan Hock, a marketing professor at the University of Connecticut. So Hock and a colleague, Freie Universität Berlin’s Sascha Raithel, set out to do just that.

They found that firms making no public statement and taking no action—the path most follow—generally do poorly. They also discovered a surprise: Companies that engage with a situation and handle it well don’t just stanch the bleeding; they come out ahead. “These incidents can be an opportunity,” Raithel says. “If a firm shows an appropriate response to the misbehavior, it can gain market value.”

The researchers began by examining news databases for examples of publicly traded U.S. companies whose celebrity endorsers generated negative publicity from 1988 to 2016 while under contract. This yielded 128 incidents involving 230 companies. Fifty-nine percent of the endorsers were athletes, 24% TV or radio personalities, and 17% musicians; 70% were male. (Nike experienced the most incidents—23.) Despite the 29-year time frame, half the incidents occurred from 2010 to 2016, suggesting that the pace of celebrity scandals has accelerated.

The data illustrates firms’ uncertainty about how to respond. Fifty-nine percent of the companies did nothing, 20% announced that they would maintain their relationship with the endorser, and 21% put it on hold or ended it. Some firms responded differently to the same incident. For example, after a photo of the swimmer Michael Phelps smoking marijuana went viral, Visa publicly supported him, Kellogg let his contract expire, and some other companies stayed silent. “These numbers and reactions highlight that many firms have no clue what the best reaction is,” Hock says.

Next the researchers explored factors that might affect public reaction to celebrity misbehavior, finding four that played a significant role. First, does the celebrity really deserve to be blamed? Someone who commits domestic violence, say, is more clearly culpable than someone whose nude photos were circulated because his or her computer was hacked; in fact, the latter person might be seen as more a victim than an offender. Second, does the scandal directly relate to the celebrity’s profession, as when an athlete is caught using performance-enhancing drugs, or is there no link, as when the person has an extramarital affair? Third, is the celebrity’s profession closely tied to the product being endorsed, as when a musician touts a guitar brand, or is the relationship a distant one, as when an actress shills for a liquor company? Finally, has the celebrity made a public apology?
Responsibility is intangible. Except to our clients.
For each incident, the researchers determined how the firms in question responded (if they did), how quickly, and whether they curtailed or maintained the relationship with the endorser. They coded whether the misbehavior was related to the celebrity’s profession and whether the endorser apologized. They surveyed more than 300 marketing professionals about how much each celebrity was to blame for the incident and the extent to which the endorser’s profession was associated with the product being promoted. To assess the financial impact of each scandal, they analyzed stock price movement in the 20 trading days after news of it broke, looking for abnormal returns. And they controlled for a variety of factors, including firms’ ad spending, the amount of media coverage an episode received, and whether the misbehavior was rumored or proven.

In every case, firms that responded to events instead of staying silent saw a positive impact on their stock, and firms that did so within three days of the news performed better than their slower counterparts. (The researchers say that’s because prompt announcements reduce uncertainty, which can hurt share price.) In fact, fast responders saw their stock rise by 2.1%, on average, during the four weeks following the event. Whether a firm stood by its celebrity mattered less than whether it did something.

A company’s handling of a scandal-plagued endorser should be guided by the four factors cited above. Firms are likely to benefit by severing ties with endorsers whose misbehavior is closely related to their profession and those whose work is only distantly related to the brand. Investors react more favorably when firms drop unapologetic endorsers than when they drop ones who voice contrition. Regarding blame, investors seem to consider it only in cases of suspension, reacting negatively when a low-blame endorser is punished.

The Tiger Woods episode illustrates some of these points. Most firms whose products are directly related to golf, including Nike, stood by him; companies in nonsports industries were more likely to bid him farewell. The researchers say that Woods’s attempts at atonement—a series of statements that stopped short of a full mea culpa, followed months later by a heavily scripted TV apology—didn’t help; a quicker and more authentic apology would probably have served him better, their work suggests.

The research has clear takeaways for endorsers and firms alike. Celebrities who are to blame for an incident should always apologize, quickly and sincerely. Firms should recognize that silence is their worst option; they should respond one way or another, ideally within three days. And companies that use celebrity endorsers should be aware that scandals seem to be arising more frequently.

“Firms need to be ready,” says Raithel. “Even if you can’t prepare for specific types of misbehavior, develop scenarios so that you have some type of response plan for when these things happen.”

IN PRACTICE

“Few Celebrities Are Squeaky Clean”

For more than 20 years Bob Williams, the CEO of Burns Entertainment, has matched brands with celebrity endorsers. (Among his deals: securing the actress Mila Kunis for the liquor brand Jim Beam and signing the NBA star Steph Curry with Degree antiperspirant.) Williams recently spoke with HBR about how companies react when an endorser is caught up in a scandal. Edited excerpts follow.

How much do companies worry about endorser scandals? Twenty years ago the level of worry was one on a 10-point scale. Today it’s eight. I mark the change at 2003, when Kobe Bryant was charged with sexual assault. [Editor’s note: The charges were dismissed; Bryant publicly apologized and settled a civil suit.] Until then A-list celebrities had an aura of invincibility. Afterward advertisers began looking differently at the endorsement genre. Morals clauses for new endorsers went from being very general, if they existed at all, to being highly detailed. And brands began performing much more
When a scandal breaks, how do advertisers typically react? First they evaluate whether the accusation is true. If it might be, they try to assess the impact. Different events will affect a brand differently. An extramarital affair might not be as damaging as a criminal offense. While this evaluation is under way, advice is coming in from the marketing team, from us, and from ad agencies, insurance carriers, and lawyers. That’s one reason brands tend to react slowly—they want to avoid a rush to judgment.

What factors can lead a company to stand by the endorser? Some are specific to the firm. For instance, Nike likes to hire controversial celebrities, and when something happens with one, it’s much more patient. A brand that doesn’t rely as heavily on a celebrity—say, a financial services firm—is much more likely to cut and run. These decisions are also relationship-driven: Although there are contracts in place, friendships develop too. And the endorser’s personality can play a role. Lance Armstrong was extremely likable, so when he was accused of doping, people didn’t want to believe it. That slowed the process.

Have any companies been particularly adept in their responses? Many firms handled the Tiger Woods scandal well. AT&T and Accenture cut ties very quickly and probably saved themselves some negative impact. That made sense—their businesses are unrelated to golf, so it was easy for them to run different ads. Nike had a lot to lose by dropping Woods, because he’d been essential to boosting its golf equipment and apparel businesses, so it retained him. A decision that’s right for one company isn’t necessarily right for another.

Has social media changed things? It’s made bad news travel more quickly, and it’s made it very easy for people to go back to see what someone said and identify an area of controversy. Take Kevin Hart: He lost the chance to host the 2019 Oscars because of homophobic tweets he sent several years ago. Looking at a celebrity’s social media history is one way companies perform due diligence. It’s impossible to completely avoid the risk of scandal; few celebrities are squeaky clean. The best approach is to invest in the selection process and then draw up a contract with a very strong morals clause and the ability to exit quickly if necessary.
STRATEGY

The Bully in the Corner Office

Military and sports opponents commonly consider a rival leader’s personality when mulling a competitive move, such as an attack. In business strategy, however, this element is rarely studied; firms are presumed to make strategic moves on the basis of competitive dynamics or microeconomic factors. New research looked for links between the personal bearing of CEOs and the incidence of competitive attacks against their firms. Drawing on the theory that victims in general tend to be either submissive and unlikely to fight back or so provocative that rivals strike preemptively (think of schoolyard and barroom fights), the researchers coded publicly available videos of 102 CEOs of Fortune 500 companies from 2010 to 2016, rating each leader on submissive and provocative tendencies. Then, using news articles, they identified which of the executives’ firms had come under pricing, product, marketing, or expansion attacks. They controlled for variables including the CEOs’ media prominence and pay; their firms’ size and financial performance; industry complexity; and whether the CEO was also chairman. The analysis showed that firms with CEOs rated as highly submissive or provocative were indeed more prone to be targeted by their counterparts, with perceived submissiveness making them especially vulnerable (gender did not appear to be a significant differentiator).

Subsequent interviews with CEOs supported those findings. For example, one leader described a rival CEO as so lazy and change-averse that his team focused on “picking off [his] customers one by one.” Just as antibullying initiatives take typical victim characteristics into account, training programs could use this work to help executives avoid drawing fire, the researchers say. “CEOs who are ‘too nice’ can be counseled to be considerate of this element,” they write, while “those with domineering styles...can be trained to manage this characteristic.”

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GENDER
Can the Gig Economy Close the Wage Gap?

In discussions about the persistent inequities between men’s and women’s pay, factors such as managerial discrimination, a lack of transparency regarding salaries, and women’s reluctance to negotiate dominate. A new study takes those things out of the equation by focusing on a novel data set: Uber drivers.

The researchers examined data on all UberX and UberPOOL drivers in the United States (totaling more than 1.87 million) from January 2015 to March 2017. They learned that on average, men made $21.28 per hour (before expenses), while women pulled in just $20.04—a difference of 7%. Because fares are set by formulas that don’t vary from driver to driver, managerial discretion and employee bargaining styles cannot explain the disparity. Discrimination on the part of riders was investigated and ruled out. Controlling for various other factors, the researchers found that the gap was entirely attributable to three things: where people drove, the depth of their experience on the platform, and driving speed. Men tend to operate in more-lucrative locations—areas with higher crime rates and more drinking establishments, where fares are raised to compensate for risk. They log more hours each week and stick with the company longer, so they accumulate more experience and can make better decisions about where and when to drive and which trips to accept. And because men drive faster, they complete more rides in the same period of time.

Judging from these findings, “there is no reason to expect the ‘gig’ economy to close gender differences,” the researchers write. Still, they see reason for hope. “Overall, our results suggest that on-the-job learning may contribute to the gender earnings gap more broadly in the economy than previously thought,” they conclude. “Policies that could target changes in the time-use choices of men and women could narrow the gender pay gap by helping women move up the learning curve at the same pace as men.”

ABOUT THE RESEARCH “The Gender Earnings Gap in the Gig Economy: Evidence from over a Million Rideshare Drivers,” by Cody Cook et al. (working paper)

DECISIONS
People Don’t Need as Much Data as They Think

In *Blink*, Malcolm Gladwell explored how people in certain settings, such as job interviews, make snap judgments largely on the basis of intuition, and widespread evidence supports that tendency. Yet new research shows that people routinely expect to need a lot of information when facing a decision—and may pay for data they don’t use.

In a series of experiments, participants were asked how many times they would have to see artwork or taste juice before knowing whether they liked it; in each case they significantly overestimated the exposure required. In a trial involving an email service that delivers funny cat videos, subjects overestimated how many days they would need to receive a video before deciding whether to subscribe. And MBA students writing essays for a job application predicted that hiring managers would need to see four essays per applicant to make a decision; in reality it took just two.

“People may generally overestimate the amount of evidence they will patiently evaluate before making up their minds anyway, paying costs to acquire information that will go unused,” the researchers conclude.

ABOUT THE RESEARCH “People Use Less Information Than They Think to Make Up Their Minds,” by Nadav Klein and Ed O’Brien (Proceedings of the National Academy of Sciences, 2018)

REPLY ALL

Researchers sent venture capitalists 80,000 emails pitching a fictitious start-up and varying the supposed founders’ names to signal that they were, variously, male or female and white or Asian. Women received 8% more replies indicating interest than men did, and Asians received 6% more than whites—a sign that discrimination in VC financing doesn’t occur during first contact.

“Gender, Race, and Entrepreneurship: A Randomized Field Experiment on Venture Capitalists and Angels,” by Will Gornall and Ilya A. Strebulaev
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Why So Many “Open Secrets” Go Unexposed

From glitches with key projects to instances of harassment, serious work-related issues often remain hidden from management even when they’re common knowledge among the rank and file. That’s surprising in view of research showing that employees are more confident about bringing up problems when peers share their perspective, conferring a certain safety in numbers. New research offers an explanation: When people know that others are aware of an issue and could sound the alarm, a version of the “bystander effect” kicks in. The phenomenon, first described after the infamous 1964 murder of Kitty Genovese, holds that the more witnesses there are to an emergency, the less likely any one person is to intervene. Researchers theorized that it might apply to corporate life—and a series of studies support that idea.

In the first, 132 employees of a Fortune 500 electronics company were surveyed about how often they spoke up about work-related problems. The more that employees believed problems were also known to teammates, the less willing they were to go to managers. Follow-up experiments confirmed the finding. In one, university students who thought they were the only ones aware of an issue with campus transportation were 2.5 times as likely as others to say they would speak to the administration. When multiple individuals know about a problem, the researchers say, each experiences a diffusion of responsibility—the sense that he or she need not take on any risks associated with bringing it up. The effect is heightened when other observers are seen as having a strong relationship with management and thus being well positioned to break the silence.

Managers can counter this tendency, the researchers say. “Paradoxically, positive organizational practices that encourage wide sharing of information and the formation of strong relational ties between managers and employees might inadvertently...make employees experience diffusion of responsibility,” they write. “Managers can reduce such diffusion...by making employees feel that they each can make a unique contribution to the group, irrespective of whether their peers have similar informational access to work issues.” Explicitly rewarding individual acts of courage, they add, can also get people off the sidelines.


The Industries in Which Artificial Intelligence Start-Ups Are Being Funded

A global survey found that financial services and retail receive the largest shares of total investment in AI start-ups, while transportation/logistics and consumer packaged goods trail the pack.

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<td>Financial services</td>
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People Make Healthier Choices When Buying Online

As more and more grocery shoppers turn to the internet—some 4% of all groceries sold in the United States in 2016 were bought online, and the share is projected to reach 20% within a decade—retailers face increasing pressure to better understand their habits. A new study comparing digital and in-store buying sheds valuable light.

The researcher examined the purchasing histories of 34,000 households over two and a half years, using scanner data from a large supermarket chain that began rolling out an online option in 2015. When ordering online, she found, households were less price-sensitive and less inclined to save money by searching for substitute items; they spent $49 more a month, on average, than when buying in-store. The increase was not evenly distributed: People spent more on categories that generally contain nutritious items, namely dairy (an average rise of 3.8%), fruit (5.9%), meat (5.7%), and vegetables (7.4%), cutting back on drinks (a decrease of 5.2%), oils (4.1%), and snacks and sweets (13.6%).

These results are consistent with behavioral theories that people make better decisions when focused on the future, the researcher says; the lag between ordering online and receiving the groceries could encourage healthier choices. And because the level of distraction (noise, the presence of children, and so on) and the influence of product placement are lower than in physical stores (no checkout lanes or end-of-aisle displays), consumers may have an easier time exercising self-control. For retailers, “a more sophisticated online pricing strategy, that incorporates the fact that the value of convenience appears to be different across the two purchasing environments, would likely lead to increased online revenues,” the researcher writes, while for policy makers, “initiatives that promote healthier choices (via product placement either in-store or online) could improve the quality of food purchases.”

NEGOTIATION

The Power of “Phantom Anchors”

Those who study decision making understand the impact of anchoring—a cognitive bias whereby someone becomes overly focused on a piece of information (the anchor) and fails to sufficiently move away from it. It can be especially powerful in negotiations, where the first offer made has a strong influence on counteroffers and on the final settlement. A new study examines whether so-called phantom anchoring has a similar effect.

Phantom anchors are aggressive offers that are quickly retracted—for example, someone selling a car might...
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say, “I was going to ask $8,000, but I’ve listed it for $6,000.” Research in areas other than negotiation has found that they exert a strong pull, because even though the initial figure is promptly withdrawn, the listener is unable to “unhear” it.

The researchers began by assessing whether phantom anchors are a real and spontaneously occurring negotiating strategy. In a survey of 50 salespeople who negotiate 17 times a month, on average, 29% said they routinely deploy them. And in a laboratory experiment in which pairs of people negotiated the sale of a biotech plant, 29 of 82 negotiations involved at least one phantom anchor.

In a subsequent series of experiments involving simulated negotiations for cars, restaurant rental spaces, and salaries, researchers examined how aggressively (or not) participants hit with a phantom anchor responded with a counteroffer, whether the final price favored the party who’d used the phantom anchor or the person on the receiving end, and whether those using the technique were viewed as benevolent or came across as manipulative. In all the experiments, phantom anchors generated favorable financial results for the negotiators who wielded them, but the counterparties felt manipulated. “This apparent trade-off means that real negotiators should use phantom anchors with caution,” the researchers write.

**COMMUNICATION**

**How to Give More-Memorable Feedback**

When critiquing someone’s work, should you focus on past performance or future endeavors? Education experts often advise the latter, arguing that the main purpose of feedback is to foster improvement going forward; and research shows that people usually prefer to be told how they could do better rather than what they have done well or badly. Still other research has found that people have greater recall when they are planning for events to come than when thinking about things that have already happened. It stands to reason, then, that so-called *directive feedback* (comments with a future orientation) would be better retained than *evaluative feedback*—but in six studies that’s not what researchers found.

In the first experiment, 61 undergraduates read a script containing 20 critical comments about a writing assignment they had completed. Half the comments were in an evaluative style (“You didn’t always demonstrate a sophisticated awareness of the issues you covered”), half in a directive style (“You should aim to demonstrate a more sophisticated awareness of the issues you cover”). The students were later asked to reproduce as much of the feedback as they could. They recalled significantly more of the evaluative comments—and they tended to reproduce both types of comments in an evaluative style. This pattern held over the subsequent experiments, although the researchers could not pin down the reasons behind it. “Learners who can habitually remember the feedback they receive should in principle have a strong advantage,” they write. “Whatever the causal mechanism, these findings show that future-orientation does not always benefit memory; in this case it had quite the opposite effect.”

**ABOUT THE RESEARCH**

“I Was Going to Offer $10,000 but...: The Effects of Phantom Anchors in Negotiation,” by Nazli Bhatia and Brian C. Gunia (Organizational Behavior and Human Decision Processes, 2018)

SOME CHEFS COOK THEIR BEST AT 30,000 FEET
Joep Cornelissen of Erasmus University and his team asked experienced investors to watch a video of an entrepreneur pitching a new device. He did four versions of the presentation: One used a lot of figurative language; one included frequent hand motions; one deployed both; and one used neither. People who saw the video with only the frequent gestures were on average 12% more interested in investing. The conclusion:

When You Pitch an Idea, Gestures Matter More Than Words

Professor Cornelissen, DEFEND YOUR RESEARCH

Cornelissen: We did find that gestures were a really important way to get investors to buy into a fictional device that helped people recover from sports injuries. When the “entrepreneur”—an actor we’d hired—used his hands to explain the idea, investors were more interested in it than when he described it in straightforward technical terms or with metaphors, analogies, and anecdotes. Gesturing had a more direct impact than either kind of language did. We were surprised that the findings were so clear, given the emphasis on the use of rhetoric and storytelling in venture pitches and other kinds of persuasion. We tend to overlook nonverbal communication, but it seems to be critical.

HBR: Why would investors be so swayed by gesturing? The data suggests that the hand motions gave them a better sense of what the product would look like and how it would work. The unfamiliar idea was made more concrete. We think this kind of information is especially important in uncertain, high-stakes contexts like pitch meetings, where investors are looking for a variety of cues that will help them evaluate ideas’ potential.

Or maybe people who gesture a lot seem more charismatic and therefore worth investing in? Studies have certainly shown that gestures can convey excitement and make investors attribute more passion to entrepreneurs. But we found that gestures communicate more about the business ideas, too. When we surveyed the investors who’d watched the pitches, we found that people who’d seen the gesturing version were more likely to say they had a good understanding of the new device.

Are certain kinds of motions helpful? I often talk with my hands, but I’m not intentional about it. Most of us gesture all the time, sometimes unconsciously, though this varies from culture to culture. Generally, without noticing, we make a lot of “beat” gestures: repetitive motions that mark the rhythm of our speech. We use “cohesive,” or speech-structuring,
gestures to indicate the start or end of a sentence or points we’re going to make. There are also symbolic gestures that convey information. You can use your hands to reproduce the form of an object, point to a prop, describe a movement, or even express a feeling. We identified and coded all these kinds of gestures in a qualitative field study analyzing 17 actual entrepreneurs as they pitched ideas. Then we instructed our actor to make certain motions in his videos, such as sweeping his hands out to represent the growing market for the product.

Should everyone add symbolic hand movements to pitches? If you can be strategic and find one or two killer gestures that really mark your ideas or where you are with a venture—or that clarify what the product or service is about—that could do wonders. And just as you would rehearse what you’re going to say, you should practice your body language. We’ve seen lots of tech entrepreneurs coming right out of university who just stand behind the lectern and give very dry, technical pitches, without any hand movements at all. These don’t stand out as much as pitches by skilled presenters who gesture frequently.

How can you teach yourself to be good at gesturing if it doesn’t come naturally? Being attentive to how other people do it skillfully is a first step. Many politicians have started to use knuckle-pointing gestures—with the index figure curled—as Bill Clinton and Tony Blair do to emphasize points in speeches. Try out a few gestures and see which feel most powerful and authentic to you. Then, through repetition, you can train yourself to make them a natural part of your communication style.

Couldn’t all the gesturing backfire? Might people find it distracting? Too much could indeed be off-putting, making the pitch more of a pantomime. But this doesn’t happen in most pitches. Even when entrepreneurs use a lot more gestures than normal, if the motions are aligned with the speech, they do work.

Still, we don’t want to overemphasize their effect. In our study we were asking general investors, who had no medical-device expertise, to evaluate the pitch, so they were probably keen for any information that could help them understand the product. In a real-world setting, they’d do further due diligence; a pitch isn’t the one and only moment that determines whether people put money into a venture. But it can either move them away from an idea or make them want to explore it further. What we measured, first with the professional investor group and then with students playing the role of investor, was intention to invest, not an actual handover of cash.

Why did you also look at students? While our focus was on seeing what made a pitch effective with investors, we wanted to see if we could replicate the findings with another sample, and we did. But we found an interesting difference: Though investors didn’t seem to be swayed by how something was described or framed, the students were affected by figurative language. This suggests that investors primarily attend to the entrepreneurs’ physical cues and signals; they may strip away other details of the pitch to focus more on the people themselves.

What other factors influence how investors react? We know gender does. Male entrepreneurs are much more likely to secure funding than female entrepreneurs are. Studies have also shown that investors base decisions on gut feelings about entrepreneurs and their teams. But surprisingly, no one had really explored what aspects of a pitch determine investors’ overall assessments. Teasing those apart is key. There are many other things to look at: whether people have certain objects in their hands, refer to a prototype, or take a certain position on stage.

So the next time I propose an idea, I need some gestures to go with it? Yes—find one or two that convey the main points you want to get across. In my own classes, I let groups of MBA students pitch the same idea and then ask them to rate who was the most memorable and persuasive. They usually choose presenters who used a few gestures around their main points. In other instances, I first have students do a pitch on their own and then train them to change their story and strategically add hand motions. The whole class can then see the before and after versions and how much difference carefully crafted body language makes.

Interview by Nicole Torres
HBR Reprint F1903B
Embrace data chaos.

You’re buried in raw data. Traditional tools require you to structure it before it can be useful. With Splunk, you can start digging for actionable insights immediately, no matter what state that data is in.

splunk.com/chaos
In June 2018 I was awoken at my home in Norway long after midnight by a call from a top official at United Nations headquarters, in New York. The Mexican ambassador to the UN had submitted a formal complaint about the United Nations Office for Project Services (UNOPS), the organization I lead, alleging that UNOPS had officially sided with the opposition candidate in Mexico’s upcoming presidential election. The complaint was ridiculous: All we’d done was say yes to the candidate when he asked if we would assist him with an anti-corruption campaign if he was elected. Nonetheless, the formal complaint created a press frenzy in Mexico. We had two options: apologize profusely, or declare we’d done nothing wrong. It was a sensitive decision, because our reputation was at risk, especially if the opposition candidate lost. We decided to stand firm. The UN secretary-general issued a statement reaffirming the UN’s impartiality. A month later the opposition candidate, Andrés Manuel López Obrador, was elected president—and soon after his inauguration he asked UNOPS to help sell Mexico’s presidential airplane, to set an example of government frugality.

Leading UNOPS, which I’ve done since 2014, requires a daily walk across a political tightrope. But I try not to let politics distract me from my primary goal: helping the agency continue to become a self-funded, sustainable,
and entrepreneurial arm of the United Nations—staying true to our original mission even as we diversify to serve a wide array of clients and take on projects unlike what most people envision for an NGO like ours. Not long ago the organization teetered near bankruptcy; today it’s growing smartly. What we’ve accomplished can be instructive. It’s easy to name dozens of successful turnarounds in the private sector; it’s much harder to think of nonprofit examples. UNOPS has been able to change dramatically, creating a culture of discipline and a measured approach to risk-taking.

CONFLICTED INTERESTS
UNOPS has an unusual history. Until the mid-1990s it was a project-execution department within the United Nations Development Programme (UNDP), which is comparable to other large UN agencies such as the International Children’s Emergency Fund (UNICEF) and the World Food Programme. UNOPS always charged other members of the UN family to cover the costs of projects—building infrastructure, for example—but as it grew, so did a seed of doubt. Critics said it was a conflict of interest that the UNDP made policy decisions and then charged member states to take actions accordingly through its de facto subsidiary, UNOPS. Boutros Boutros-Ghali, then the secretary-general, wanted more transparency around funding decisions and clearer incentives for agencies to work together.

So a group of UN officials proposed forming a new, self-financed organization, independent of political and funding decisions, which would implement projects on the ground at the country level. The hope was that this would address the conflict-of-interest problem—and that moving away from the UN bureaucracy would also make the organization more efficient. With support from Boutros-Ghali and the UN member states, UNOPS was spun off as an independent entity in 1995. It began bidding for work on infrastructure, project management, and procurement for the UN and other public-sector entities, as an outside contractor would do.

For much of its first decade, UNOPS was on a slow slide toward bankruptcy. It didn’t have enough experience to deliver on assignments efficiently, with the necessary quality, at the right cost. It didn’t know how to set prices correctly, so it lost money on too many projects. Its reputation for being willing to take on any assignment meant that UNOPS ended up doing work other organizations declined to do. Some people called it the Eleventh-Hour Agency, because it was where people went when they’d tried to do something themselves, determined that it was too hard or too risky, and wanted to outsource it as a last resort.

My predecessor as executive director, Jan Mattsson of Sweden, faced a make-or-break decision in June 2006. He and his deputy, Vitaly Vanshelboim of Ukraine, were given six months to either create a plan to radically transform the organization or shut it down. They chose to implement a turnaround. They began championing the concept of excellence and trying to benchmark UNOPS not just against its peers in the public sector but against the best of the private sector. They cut waste and duplication and persuaded existing and potential clients that relying on UNOPS’s ability to deliver in tough circumstances was worth their while. From 2006 to 2014 the organization attained a very solid financial footing and made major strides in improving its reputation, even as it remained largely unknown to the outside world.

MAKING TOUGH CHOICES
When I arrived, in August 2014, my goal was to take this approach to the next level. My experience in the private sector and in government had prepared me for such a high-pressure assignment.
Early in my career I spent 10 years doing development work, first as a young legal adviser at the Norwegian Agency for Development Cooperation (Norad), and later as chair of Norwegian People’s Aid (NPA). In both positions I encountered resistance to the intermingling of private-sector, for-profit approaches with the not-for-profit aims of development agencies, foreshadowing some of the opposition I’ve faced at UNOPS.

Next I spent five years as the director of legal and corporate affairs in Western Europe at Microsoft, where I learned how a world-class tech company manages complex projects and develops strategies to grow. Before joining UNOPS, I spent a decade working in the Norwegian government, serving three prime ministers and leading ministries five times—including international development, justice and public security, oil and energy, defense, and justice and public security again.

In some ways the job that best prepared me to lead UNOPS was as Norway’s defense minister. I was required to take trips to countries such as Afghanistan, Chad, and South Sudan—some of the world’s most challenging and dangerous places. One thing struck me when I visited: I always saw people from UNOPS. They were low-key about their work, but it was obvious that there was no place they wouldn’t go and no challenge they wouldn’t consider taking on. Their dedication to UNOPS’s mission was clear. When a recruiter called about the executive director’s job, I decided I wanted to take it.

In my first weeks there I realized I would need to make significant changes. Because of the perceived success of the organization’s initial recovery phase, complacency had started to creep in. Some colleagues, including a few senior managers, were convinced of UNOPS’s invincibility and their personal infallibility. When I began talking about taking a fresh look at how we worked, they quietly attempted to undermine my efforts. I didn’t allow that situation to fester; some of those people, who were widely perceived as “untouchable” because of their roles and levels, had to leave the organization. I identified employees who knew how to take smart risks and promoted them quickly, even if they lacked the experience ordinarily required to serve in a senior role. At the same time, I avoided the temptation to change out the entire senior team, as some observers urged me to do. I strongly believe in surrounding myself with people who complement my strengths and help me manage around my weaknesses.

I identified structural problems as well. Over the preceding years a bureaucracy had developed. That’s not surprising: The UN loves bureaucracy. But I believed that the rules and regulations at UNOPS were too complex and overlapping for efficiency, so I set the team a challenge: Replace them. More than 1,200 pages of rules went into the trash, and we began rewriting our operating principles, which I modeled after the processes developed to manage Storebrand, the largest Norwegian private pension provider.
We also needed to improve the way we accounted for costs and set prices. Before I arrived, the organization had been using a simplified method: estimate overall costs and add 7% as a management fee. Cost-plus pricing is commonly used in government contracting, but as UNOPS began operating more like a private company, it needed more sophisticated pricing tools. Some projects are riskier and more labor-intensive than others, so we didn’t raise fees across the board. In fact, our margins have been smaller on many less risky projects.

DEALING WITH COMPLEXITY
To understand how we’ve changed, one needs to appreciate the complexity of the work UNOPS is often asked to take on. Here’s a typical example: The UN High Commissioner for Refugees came to the agency in 2012 to discuss the situation in Syria. Refugees were entering neighboring countries in very large numbers, and the UN had to help build camps for them. Such camps need schools. They need ambulances and medical services. They need security, to prevent crime within newly formed communities that may contain more than 100,000 people. We offered support through a number of projects. I’m especially proud of what we’ve done to reduce violence by modeling community policing and installing solar streetlights around sanitation facilities so that women can use bathrooms with less fear of being attacked.

Many of our projects carry risks beyond what a private company would be comfortable with. When the UN’s Organisation for the Prohibition of Chemical Weapons was tasked with destroying chemical weapons along with a dozen facilities that produced them in Syria, it turned to us. When the World Bank wanted to initiate a $200 million effort to rebuild basic infrastructure in Yemen, UNOPS got the call. The situation in Yemen is still very difficult, but we’re making progress in preventing cholera and other diseases and in helping the country develop its energy infrastructure.

In the private sector, the competitor with the best price typically gets the job. Things are not always so straightforward in the public sector. Politics is a major factor. There are times when we believe that UNOPS would add the greatest value to a particular project, but we need to tread very carefully, because other players (another UN agency, a government) may believe that it should be assigned to a specific implementer for political reasons. Some days I spend most of my time patiently advocating for a level playing field when clients evaluate bids. UNOPS is fiercely competitive, and when the bidding process is fair, we thrive.

To deal with all this complexity, I introduced better risk management to improve decision making and accountability. I began giving frontline personnel a voice in decisions. I asked colleagues to do more monitoring and documenting of past projects, to learn what worked or did not and why. I emphasized listening to dissenting opinions and started to challenge some classic justifications organizations use for pursuing a project that may not make financial sense.

Consider so-called door openers. Sometimes people argue that a dicey project is a way to get a foot in the door with a new client, so it should be seen as an investment in potential future revenue. UNOPS loved door openers. I understand the logic, but today we look much harder at whether the potential is really there. It may be fun to do a hundred smaller projects, but if they’re mostly operating in the red, where will that get us? I also created a small committee—governed by a flexible rule book—that has to sign off on more-complex projects and create risk-mitigation strategies and approaches. Despite these new hurdles, our appetite sometimes remains too big for our stomach.

I’ve had to grapple a lot with the issue of cost control. UNOPS’s finances have strengthened, but some on our team believe that we’re “awash in cash” and should go on a spending spree. I profoundly disagree. I’ve seen companies go into a downward spiral (or even out of business altogether) when they stop worrying about the bottom line on a daily basis. At every opportunity, I reinforce the message that our current solid performance is no guarantee of future results—and having come this far, we don’t want UNOPS to be relegated to the history books.

Nonetheless, we’ve been able to grow at a time when the UN budget has been fairly flat, because governments have come to see us as the preferred partner. Work for governments, which is growing dramatically, now represents 37% of our revenue. Work with UN organizations is stable in dollar terms but has decreased from about 60% of revenue in 2014 to 32% in 2017. Overall, since 2014 our annual revenue has grown from $1.45 billion to $1.85 billion. Our
operational reserves have nearly doubled, and we’re investing in digitization and new IT systems. We’re also embarking on our most ambitious initiative to date: social impact investing.

EMBRACING INNOVATION

This next stage of our growth—in which we’ll partner with the private sector, share risks, and go to market together—has a lot of potential, but it’s controversial. Instead of just winning contracts, we’re using our cash to invest in assets and put skin in the game.

Our first major project is in Mexico, where a 22-megawatt wind turbine facility is generating electricity and working well. The facility was built five years ago, and the original investors had a fixed timeline for exit. The investment fund came to an end just as some local companies began missing payments for their electricity. The credit risk scared off new investors.

UNOPS was invited in. We worked with the customers and found some new ones to reduce the credit exposure. We also worked with banks to renegotiate debt. Finally, we stepped in with a $9 million equity investment. UNOPS is not in this to make a lot of money for itself. Rather, we want to ensure that deals are socially responsible, environmentally beneficial, and contributing to national development goals. We worked with a multinational accounting firm to create a scorecard for social sustainability, and we pursue projects only if the score is high enough.

Doing a deal like this wasn’t easy. We had to fight multiple naysayers, both internally and externally. Some colleagues within UNOPS were against entering partnerships with “mercenaries” from the private sector. It was also hugely controversial on the outside, given that no other UN entity has ever been involved in an investable deal of this nature, let alone invested itself. I used all my persuasion skills to engage those who were against or indifferent to the deal and bring them to our side—not just with facts and figures but with an emotional appeal. I’m convinced that achieving sustainable development goals by 2030 (which is part of an overall UN goal) would be impossible without a major catalytic role by the private sector, so I decided to take the smart risk.

A few days after closing on the Mexico project, we signed agreements with the presidents of Kenya and Ghana to structure deals with investors to develop 100,000 housing units worth close to $5 billion in each country. We now have a strong pipeline of deals in renewable energy, affordable housing, and health infrastructure. In each one we aim to have an operational role—we won’t be passive investors. That makes UNOPS a major player in infrastructure—arguably the most important sector for developing countries.

More than most private-sector companies, we help clients think long-term. For instance, we use data and a proprietary model to help governments better understand what to build, when, and how—and even when not to build—to create a strategy for infrastructure needs over the next 30 or 40 years. We’ve started working on this in Saint Lucia and Curaçao—small islands in the Caribbean. Instead of talking about ad hoc projects, we can give the respective governments a road map for what they should be building over decades.

UNOPS will always be about quality implementation. And we’ll continue doing business in places where many organizations hesitate to go—regions where governments are fragile and UN peacekeepers are required. Even as we move into investing in bankable projects, we won’t neglect our core. We will, however, pursue our goals with more discipline, risk management, and cost consciousness than we have in the past—and we’ll keep saying no to projects that don’t make sense. Those things aren’t easy for an organization like ours, but they’re essential if we want to keep helping countries develop for many years to come.
The HBR McKinsey Awards, judged by an independent panel of business and academic leaders, commend outstanding articles published each year in Harvard Business Review. The awards were established in 1959 to recognize practical and groundbreaking management thinking.

First Place
How CEOs Manage Time
July–August 2018
Chief executives have tremendous resources at their disposal, but they face an acute scarcity in one area: time. Over 12 years Harvard Business School's Michael E. Porter and Nitin Nohria collected 60,000 hours' worth of data from 27 executives and interviewed them in depth to learn how they allocate this essential resource. Their fine-grained study produced some surprising findings and shed light on the key trade-offs that CEOs need to manage.

The Finalists
Strategy for Start-Ups
May–June 2018
In their race to get to market first, entrepreneurs often run with the first plausible strategy they identify. They can improve their chances of picking the right path by investigating four generic go-to-market strategies and choosing the version that best aligns with their values and motivations, according to Joshua Gans (Rotman), Erin L. Scott (Sloan), and Scott Stern (Sloan).

The Surprising Power of Questions
May–June 2018
Few executives think of posing questions as a skill to be learned—yet the right kind of questioning is a powerful tool for unlocking value in companies. Harvard Business School's Alison Wood Brooks and Leslie K. John describe carefully researched techniques that enhance the power and efficacy of queries.

The Judges
Peter Cappelli
Professor, the Wharton School
Claudio Fernandez-Aráoz
Senior adviser, Egon Zehnder
Bharat Anand
Professor, Harvard Business School
Cheryl Bachelder
Interim CEO, Pier 1 Imports
DEEP WITHIN THE BRAIN, WE’VE FOUND A WAY TO MANAGE THE SYMPTOMS OF PARKINSON’S

Life-changing technology from Abbott is helping people with Parkinson’s live more fully. Using a mobile platform, pulses of energy can be sent to the area of the brain that helps control their symptoms.

From wireless implants that send critical information about your heart to your doctor to wearable sensors that track glucose levels without blood, life-changing technology from Abbott helps millions live healthier, fuller lives.

DIAGNOSTICS  |  MEDICAL DEVICES  |  NUTRITION

life. to the fullest.®
Abbott
Why does a Fortune Global 500 company trust its culture to a company halfway around the world?

Results.

“PETRONAS has experienced accelerated results in strategy execution and speed to market while making excellent progress in our transformation journey since partnering with the leaders in culture change management.”

Wan Zulkiflee
President & Group CEO
PETRONAS
Your Approach to Hiring Is All Wrong

Outsourcing and algorithms won’t get you the people you need.

BUSINESSES HAVE NEVER done as much hiring as they do today. They’ve never spent as much money doing it. And they’ve never done a worse job of it.

For most of the post–World War II era, large corporations went about hiring this way: Human resources experts prepared a detailed job analysis to determine what tasks the job required and what attributes a good candidate should have. Next they did a job evaluation to determine how the job fit into the organizational chart and how much it should pay, especially compared with other jobs. Ads were posted, and applicants applied. Then came the task of sorting through the applicants. That included skills tests, reference checks, maybe personality and IQ tests, and extensive interviews to learn more about them as people. William H. Whyte, in The Organization Man, described this process as going on for as long as a week before...
subcontractors can scan websites that programmers might visit, trace their “digital exhaust” from cookies and other user-tracking measures to identify who they are, and then examine their curricula vitae.

At companies that still do their own recruitment and hiring, managers trying to fill open positions are largely left to figure out what the jobs require and what the ads should say. When applications come—always electronically—applicant-tracking software sifts through them for key words that the hiring managers want to see. Then the process moves into the Wild West, where a new industry of vendors offer an astonishing array of smart-sounding tools that claim to predict who will be a good hire. They use voice recognition, body language, clues on social media, and especially machine learning algorithms—everything but tea leaves. Entire publications are devoted to what these vendors are doing.

The big problem with all these new practices is that we don’t know whether they actually produce satisfactory hires. Only about a third of U.S. companies report that they monitor whether their hiring practices lead to good employees; few of them do so carefully, and only a minority even track cost per hire and time to hire. Imagine if the CEO asked how an advertising campaign had gone, and the response was “We have a good idea how long it took to roll out and what it cost, but we haven’t looked to see whether we’re selling more.”

Hiring talent remains the number one concern of CEOs in the most recent Conference Board Annual Survey; it’s also the top concern of the entire executive suite. PwC’s 2017 CEO survey reports that chief executives view the unavailability of talent and skills as the biggest threat to their business. Employers also spend an enormous amount on hiring—an average of $4,129 per job in the United States, according to Society for Human Resource Management estimates, and many times that amount for managerial roles—and the United States fills a staggering 66 million jobs a year. Most of the $20 billion that companies spend on human resources vendors goes to hiring.

Why do employers spend so much on something so important while knowing so little about whether it works?

WHERE THE PROBLEM STARTS

Survey after survey finds employers complaining about how difficult hiring is. There may be many explanations, such as their having become very picky about candidates, especially in the

THE PROBLEM

Employers continue to hire at a high rate and spend enormous sums to do it. But they don’t know whether their approaches are effective at finding and selecting good candidates.

THE ROOT CAUSES

Businesses focus on external candidates and don’t track the results of their approaches. They often use outside vendors and high-tech tools that are unproven and have inherent flaws.

THE SOLUTION

Return to filling most positions by promoting from within. Measure the results produced by vendors and new tools, and be on the lookout for discrimination and privacy violations.
slack labor market of the Great Recession. But clearly they are hiring much more than at any other time in modern history, for two reasons.

The first is that openings are now filled more often by hiring from the outside than by promoting from within. In the era of lifetime employment, from the end of World War II through the 1970s, corporations filled roughly 90% of their vacancies through promotions and lateral assignments. Today the figure is a third or less. When they hire from outside, organizations don’t have to pay to train and develop their employees. Since the restructuring waves of the early 1980s, it has been relatively easy to find experienced talent outside. Only 28% of talent acquisition leaders today report that internal candidates are an important source of people to fill vacancies—presumably because of less internal development and fewer clear career ladders.

Less promotion internally means that hiring efforts are no longer concentrated on entry-level jobs and recent graduates. (If you doubt this, go to the “careers” link on any company website and look for a job opening that doesn’t require prior experience.) Now companies must be good at hiring across most levels, because the candidates they want are already doing the job somewhere else. These people don’t need training, so they may be ready to contribute right away, but they are much harder to find.

The second reason hiring is so difficult is that retention has become tough: Companies hire from their competitors and vice versa, so they have to keep replacing people who leave. Census and Bureau of Labor Statistics data shows that 95% of hiring is done to fill existing positions. Most of those vacancies are caused by voluntary turnover. LinkedIn data indicates that the most common reason employees consider a position elsewhere is career advancement—which is surely related to employers’ not promoting to fill vacancies.

The root cause of most hiring, therefore, is drastically poor retention. Here are some simple ways to fix that:

**Track the percentage of openings filled from within.** An adage of business is that we manage what we measure, but companies don’t seem to be applying that maxim to tracking hires. Most are shocked to learn how few of their openings are filled from within—is it really the case that their people can’t handle different and bigger roles?

**Require that all openings be posted internally.** Internal job boards were created during the dot-com boom to reduce turnover by making it easier for people to find new jobs within their existing employer. Managers weren’t even allowed to know if a subordinate was looking to move within the company, for fear that they would try to block that person and he or she would leave. But during the Great Recession employees weren’t quitting, and many companies slid back to the old model whereby managers could prevent their subordinates from moving internally. JR Keller, of Cornell University, has found that when managers could fill a vacancy with someone they already had in mind, they ended up with employees who performed more poorly than those hired when the job had been posted and anyone could apply. The commonsense explanation for this is that few enterprises really know what talent and capabilities they have.

**Recognize the costs of outside hiring.** In addition to the time and effort of hiring, my colleague Matthew Bidwell found, outside hires take three years to perform as well as internal hires in the same job, while internal hires take seven years to earn as much as outside hires are paid. Outside hiring also causes current employees to spend time and energy positioning themselves for jobs elsewhere. It disrupts the culture and burdens peers who must help new hires figure out how things work.

**Finding out whether your practices result in good hires is not only basic to good management but the only real defense against claims of adverse impact and discrimination.** Other than white males under age 40 with no disabilities or work-related health problems, workers have special protections under federal and state laws against hiring practices that may have an adverse impact on them. As a practical matter, that means if members of a particular group are less likely to be recruited or hired, the employer must show that the hiring process is not discriminatory. The only defense against evidence of adverse impact is for the employer to show that its hiring practices are valid—that is, they predict who will be a good employee in meaningful and statistically significant ways—and that no alternative would predict as well with less adverse impact. That analysis must be conducted with data on the employer’s own applicants and hires. The fact that the vendor that sold you the test you use has evidence that it was valid in other contexts is not sufficient.
None of this is to suggest that outside hiring is necessarily a bad idea. But unless your company is a Silicon Valley gazelle, adding new jobs at a furious pace, you should ask yourself some serious questions if most of your openings are being filled from outside.

A different approach for dealing with retention (which seems creepy to some) is to try to determine who is interested in leaving and then intervene. Vendors like Jobvite comb social media and public sites for clues, such as LinkedIn profile updates. Measuring “flight risk” is one of the most common goals of companies that do their own sophisticated HR analytics. This is reminiscent of the early days of job boards, when employers would try to find out who was posting résumés and either punish them or embrace them, depending on leadership’s mood.

Whether companies should be examining social media content in relation to hiring or any other employment action is a challenging ethical question. On one hand, the information is essentially public and may reveal relevant information. On the other hand, it is invasive, and candidates are rarely asked for permission to scrutinize their information.

Hiring a private detective to shadow a candidate would also gather public information that might be relevant, yet most people would view it as an unacceptable invasion of privacy.

**THE HIRING PROCESS**

When we turn to hiring itself, we find that employers are missing the forest for the trees: Obsessed with new technologies and driving down costs, they largely ignore the ultimate goal: making the best possible hires. Here’s how the process should be revamped:

**Don’t post “phantom jobs.”** It costs nothing to post job openings on a company website, which are then scooped up by Indeed and other online companies and pushed out to potential job seekers around the world. Thus it may be unsurprising that some of these jobs don’t really exist. Employers may simply be fishing for candidates. (“Let’s see if someone really great is out there, and if so, we’ll create a position for him or her.”) Often job ads stay up even after positions have been filled, to keep collecting candidates for future vacancies or just because it takes more effort to pull the ad down than to leave it up. Sometimes ads are posted by unscrupulous recruiters looking for résumés to pitch to clients elsewhere. Because these phantom jobs make the labor market look tighter than it really is, they are a problem for economic policy makers as well as for frustrated job seekers. Companies should take ads down when jobs are filled.

**Design jobs with realistic requirements.** Figuring out what the requirements of a job should be—and the corresponding attributes candidates must have—is a bigger challenge now, because so many companies have reduced the number of internal recruiters whose function, in part, is to push back on hiring managers’ wish lists. (“That job doesn’t require 10 years of experience,” or “No one with all those qualifications will be willing to accept the salary you’re proposing to pay.”) My earlier research found that companies piled on job requirements, baked them into the applicant-tracking software that sorted résumés according to binary decisions (yes, it has the key word; no, it doesn’t), and then found that virtually no applicants met all the criteria. Trimming recruiters, who have expertise in hiring, and handing the process over to hiring managers is a prime example of being penny-wise and pound-foolish.

**Reconsider your focus on passive candidates.** The recruiting process begins with a search for experienced people who aren’t looking to move. This is based on the notion that something may be wrong with anyone who wants to leave his or her current job. (Of the more than 20,000 talent professionals who responded to a LinkedIn survey in 2015, 86% said their recruiting organizations focused “very much so” or “to some extent” on passive candidates; I suspect that if anything, that number has since grown.) Recruiters know that the vast majority of people are open to moving at the right price: Surveys of employees find that only about 15% are not open to moving. As the economist Harold Demsetz said when asked by a competing university if he was happy working where he was: “Make me unhappy.”

Fascinating evidence from the LinkedIn survey cited above shows that although self-identified “passive” job seekers are different from “active” job seekers, it’s not in the way we might think. The number one factor that would encourage the former to move is more money. For active candidates the top factor is better work and
career opportunities. More active than passive job seekers report that they are passionate about their work, engaged in improving their skills, and reasonably satisfied with their current jobs. They seem interested in moving because they are ambitious, not because they want higher pay.

Employers spend a vastly disproportionate amount of their budgets on recruiters who chase passive candidates, but on average they fill only 11% of their positions with individually targeted people, according to research by Gerry Crispin and Chris Hoyt, of CareerXroads. I know of no evidence that passive candidates become better employees, let alone that the process is cost-effective. If you focus on passive candidates, think carefully about what that actually gets you. Better yet, check your data to find out.

**Understand the limits of referrals.** The most popular channel for finding new hires is through employee referrals; up to 48% come from them, according to LinkedIn research. It seems like a cheap way to go, but does it produce better hires? Many employers think so. It’s hard to know whether that’s true, however, given that they don’t check. And research by Emilio Castilla and colleagues suggests otherwise: They find that when referrals work out better than other hires, it’s because their referrers look after them and essentially onboard them. If a referrer leaves before the new hire begins, the latter’s performance is no better than that of nonreferrals, which is why it makes sense to pay referral bonuses six months or so after the person is hired—if he or she is still there.

A downside to referrals, of course, is that they can lead to a homogeneous workforce, because the people we know tend to be like us. This matters greatly for organizations interested in diversity, since recruiting is the only avenue allowed under U.S. law to increase diversity in a workforce. The Supreme Court has ruled that demographic criteria cannot be used even to break ties among candidates.

**Measure the results.** Few employers know which channel produces the best candidates at the lowest cost because they don’t track the outcomes. Tata is an exception: It has long done what I advocate. For college recruiting, for example, it calculates which schools send it employees who perform the best, stay the longest, and are paid the lowest starting wage. Other employers should follow suit and monitor recruiting channels and employees’ performance to identify which sources produce the best results.

**Persuade fewer people to apply.** The hiring industry pays a great deal of attention to “the funnel,” whereby readers of a company’s job postings become applicants, are interviewed, and ultimately are offered jobs. Contrary to the popular belief that the U.S. job market is extremely tight right now, most jobs still get lots of applicants. Recruiting and hiring consultants and vendors estimate that about 2% of applicants receive offers. Unfortunately, the main effort to improve hiring—virtually always aimed at making it faster and cheaper—has been to shovel more applicants into the funnel. Employers do that primarily through marketing, trying to get out the word that they are great places to work. Whether doing this is a misguided way of trying to attract better hires or just meant to make the organization feel more desirable isn’t clear.

Much better to go in the other direction: Create a smaller but better-qualified applicant pool to improve the yield. Here’s why: Every applicant costs you money—especially now, in a labor market where applicants have started to “ghost” employers, abandoning their applications midway through the process. Every application also exposes a company to legal risk, because the company has obligations to candidates (not to discriminate, for example) just as it does to employees. And collecting lots of applicants in a wide funnel means that a great many of them won’t fit the job or the company, so employers have to rely on the next step of the hiring process—selection—to weed them out. As we will see, employers aren’t good at that.

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The Grass Is Always Greener...

Organizations are much more interested in external talent than in their own employees to fill vacancies.

**Top channels for quality hires**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Employee referrals</td>
<td>48%</td>
</tr>
<tr>
<td>Third-party websites or online job boards</td>
<td>46%</td>
</tr>
<tr>
<td>Social or professional networks</td>
<td>40%</td>
</tr>
<tr>
<td>Third-party recruiters or staffing firms</td>
<td>34%</td>
</tr>
<tr>
<td>Internal hires</td>
<td>28%</td>
</tr>
</tbody>
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Based on a 2017 survey of 3,973 talent-acquisition decision makers who work in corporate HR departments and are LinkedIn members. Source: LinkedIn
Once people are candidates, they may not be completely honest about their skills or interests—because they want to be hired—and employers’ ability to find out the truth is limited. More than a generation ago the psychologist John Wanous proposed giving applicants a realistic preview of what the job is like. That still makes sense as a way to head off those who would end up being unhappy in the job. It’s not surprising that Google has found a way to do this with gamification: Job seekers see what the work would be like by playing a game version of it. Marriott has done the same, even for low-level employees. Its My Marriott Hotel game targets young people in developing countries who may have had little experience in hotels to show them what it’s like and to steer them to the recruiting site if they score well on the game. The key for any company, though, is that the preview should make clear what is difficult and challenging about the work as well as why it’s fun so that candidates who don’t fit won’t apply.

It should be easy for candidates to learn about a company and a job, but making it really easy to apply, just to fill up that funnel, doesn’t make much sense. During the dot-com boom Texas Instruments cleverly introduced a preemployment test that allowed applicants to see their scores before they applied. If their scores weren’t high enough for the company to take their applications seriously, they tended not to proceed, and the company saved the cost of having to process their applications.

If the goal is to get better hires in a cost-effective manner, it’s more important to scare away candidates who don’t fit than to jam more candidates into the recruiting funnel.

Test candidates’ standard skills. How to determine which candidates to hire—what predicts who will be a good employee—has been rigorously studied at least since World War I. The personnel psychologists who investigated this have learned much about predicting good hires that contemporary organizations have since forgotten, such as that neither college grades nor unstructured sequential interviews (hopping from office to office) are a good predictor, whereas past performance is.

Since it can be difficult (if not impossible) to glean sufficient information about an outside applicant’s past performance, what other predictors are good? There is remarkably little consensus even among experts. That’s mainly because a typical job can have so many tasks and aspects, and different factors predict success at different tasks.

There is general agreement, however, that testing to see whether individuals have standard skills is about the best we can do. Can the candidate speak French? Can she do simple programming tasks? And so forth. But just doing the tests is not enough. The economists Mitchell Hoffman, Lisa B. Kahn, and Danielle Li found that even when companies conduct such tests, hiring managers often ignore them—and when they do, they get worse hires. The psychologist Nathan Kuncel and colleagues discovered that even when hiring managers use objective criteria and tests, applying their own weights and judgment to those criteria leads them to pick worse candidates than if they had used a standard formula. Only 40% of employers, however, do any tests of skills or general abilities, including IQ. What are they doing instead? Seventy-four percent do drug tests, including for marijuana use; even employers in states where recreational use is now legal still seem to do so.

Be wary of vendors bearing high-tech gifts. Into the testing void has come a new group of entrepreneurs who either are data scientists or have them in tow. They bring a fresh approach to the hiring process—but often with little understanding of how hiring actually works. John Sumser, of HRExaminer, an online newsletter that focuses on HR technology, estimates that on average, companies get five to seven pitches every day—almost all of them about hiring—from vendors using data science to address HR issues. These vendors have all sorts of cool-sounding assessments, such as computer games that can be scored to predict who will be a good hire. We don’t know whether any of these actually lead to better hires, because few of them are validated against actual job performance. That aside, these assessments have spawned a counterwave of vendors who help candidates learn how to score well on them. Lloyds Bank, for example, developed a virtual-reality-based assessment of candidate potential, and JobTestPrep offers to teach potential candidates how to do well on it. Especially for IT and technical jobs, cheating on skills tests and even video interviews (where colleagues off camera give help) is such a concern that eTeki and other
specialized vendors help employers figure out who is cheating in real time.

**Revamp your interviewing process.** The amount of time employers spend on interviews has almost doubled since 2009, according to research from Glassdoor. How much of that increase represents delays in setting up those interviews is impossible to tell, but it provides at least a partial explanation for why it takes longer to fill jobs now. Interviews are arguably the most difficult technique to get right, because interviewers should stick to questions that predict good hires—mainly about past behavior or performance that’s relevant to the tasks of the job—and ask them consistently across candidates. Just winging it and asking whatever comes to mind is next to useless.

More important, interviews are where biases most easily show up, because interviewers do usually decide on the fly what to ask of whom and how to interpret the answer. Everyone knows some executive who is absolutely certain he knows the one question that will really predict good candidates (“If you were stranded on a desert island…”). The sociologist Lauren Rivera's examination of interviews for elite positions, such as those in professional services firms, indicates that hobbies, particularly those associated with the rich, feature prominently as a selection criterion.

Interviews are most important for assessing “fit with our culture,” which is the number one hiring criterion employers report using, according to research from the Rockefeller Foundation. It’s also one of the squishiest attributes to measure, because few organizations have an accurate and consistent view of their own culture—and even if they do, understanding what attributes represent a good fit is not straightforward. For example, does the fact that an applicant belonged to a fraternity reflect experience working with others or elitism or bad attitudes toward women? Should it be completely irrelevant? Letting someone with no experience or training make such calls

Recruiting managers desperately need new tools, because the existing ones—unstructured interviews, personality tests, personal referrals—aren't very effective. The newest development in hiring, which is both promising and worrying, is the rise of data science–driven algorithms to find and assess job candidates. By my count, more than 100 vendors are creating and selling these tools to companies.

Unfortunately, data science—which is still in its infancy when it comes to recruiting and hiring—is not yet the panacea employers hope for.

Vendors of these new tools promise they will help reduce the role that social bias plays in hiring. And the algorithms can indeed help identify good job candidates who would previously have been screened out for lack of a certain education or social pedigree. But these tools may also identify and promote the use of predictive variables that are (or should be) troubling. Because most data scientists seem to know so little about the context of employment, their tools are often worse than nothing. For instance, an astonishing percentage build their models by simply looking at attributes of the “best performers” in workplaces and then identifying which job candidates have the same attributes. They use anything that’s easy to measure: facial expressions, word choice, comments on social media, and so forth. But a failure to check for any real difference between high-performing and low-performing employees on these attributes limits their usefulness. Furthermore, scooping up data from social media or the websites people have visited also raises important questions about privacy. True, the information can be accessed legally; but the individuals who created the postings didn’t intend or authorize them to be used for such purposes. Furthermore, is it fair that something you posted as an undergrad can end up driving your hiring algorithm a generation later?

Another problem with machine learning approaches is that few employers collect the large volumes of data—number of hires, performance appraisals, and so on—that the algorithms require to make accurate predictions. Although vendors can theoretically overcome that hurdle by aggregating data from many employers, they don’t really know whether individual
Interviews are where biases most easily show up, because interviewers usually decide on the fly what to ask of whom and how to interpret the answer.

is a recipe for bad hires and, of course, discriminatory behavior. Think hard about whether your interviewing protocols make any sense and resist the urge to bring even more managers into the interview process.

Recognize the strengths and weaknesses of machine learning models. Culture fit is another area into which new vendors are swarming. Typically they collect data from current employees, create a machine learning model to predict the attributes of the best ones, and then use that model to hire candidates with the same attributes.

As with many other things in this new industry, that sounds good until you think about it; then it becomes replete with problems. Given the best performers of the past, the algorithm will almost certainly include white and male as key variables. If it’s restricted from using that category, it will come up with attributes associated with being a white male, such as playing rugby.

Machine learning models do have the potential to find important but previously unconsidered relationships. Psychologists, who have dominated research on hiring, have been keen to study attributes relevant to their interests, such as personality, rather than asking the broader question “What identifies a potential good hire?” Their results gloss over the fact that they often have only a trivial ability to predict who will be a good performer, particularly when many factors are involved. Machine learning, in contrast, can come up with highly predictive factors. Research by Evolv, a workforce analytics pioneer (now part of Cornerstone OnDemand), found that expected commuting distance for the candidate predicted turnover very well. But that’s not a question the psychological models thought to ask. (And even that question has problems.)

The advice on selection is straightforward: Test for skills. Ask assessments vendors to show evidence that they can actually predict who the good employees will be. Do fewer, more-consistent interviews.

company contexts are so distinct that predictions based on data from the many are inaccurate for the one.

Yet another issue is that all analytic approaches to picking candidates are backward looking, in the sense that they are based on outcomes that have already happened. (Algorithms are especially reliant on past experiences in part because building them requires lots and lots of observations—many years’ worth of job performance data even for a large employer.) As Amazon learned, the past may be very different from the future you seek. It discovered that the hiring algorithm it had been working on since 2014 gave lower scores to women—even to attributes associated with women, such as participating in women’s studies programs—because historically the best performers in the company had disproportionately been men. So the algorithm looked for people just like them. Unable to fix that problem, the company stopped using the algorithm in 2017. Nonetheless, many other companies are pressing ahead.

The underlying challenge for data scientists is that hiring is simply not like trying to predict, say, when a ball bearing will fail—a question for which any predictive measure might do. Hiring is so consequential that it is governed not just by legal frameworks but by fundamental notions of fairness. The fact that some criterion is associated with good job performance is necessary but not sufficient for using it in hiring.

Take a variable that data scientists have found to have predictive value: commuting distance to the job. According to the data, people with longer commutes suffer higher rates of attrition. However, commuting distance is governed by where you live—which is governed by housing prices, relates to income, and also relates to race. Picking whom to hire on the basis of where they live most likely has an adverse impact on protected groups such as racial minorities.

Unless no other criterion predicts at least as well as the one being used—and that is extremely difficult to determine in machine learning algorithms—companies violate the law if they use hiring criteria that have adverse impacts. Even then, to stay on the right side of the law, they must show why the criterion creates good performance. That might be possible in the case of commuting time, but—at least for the moment—it is not for facial expressions, social media postings, or other measures whose significance companies cannot demonstrate.

In the end, the drawback to using algorithms is that we’re trying to use them on the cheap: building them by looking only at best performers rather than all performers, using only measures that are easy to gather, and relying on vendors’ claims that the algorithms work elsewhere rather than observing the results with our own employees. Not only is there no free lunch here, but you might be better off skipping the cheap meal altogether.
GOLDMAN SACHS IS A people-centric business—every day our employees engage with our clients to find solutions to their challenges. As a consequence, hiring extraordinary talent is vital to our success and can never be taken for granted. In the wake of the 2008 financial crisis we faced a challenge that was, frankly, relatively new to our now 150-year-old firm. For decades investment banking had been one of the most sought-after, exciting, and fast-growing industries in the world. That made sense—we were growing by double digits and had high returns, which meant that opportunity and reward were in great supply. However, the crash took some of the sheen off our industry; both growth and returns moderated. And simultaneously, the battle for talent intensified—within and outside our industry. Many of the candidates we were pursuing were heading off to Silicon Valley, private equity, or start-ups. Furthermore, we were no longer principally looking for a specialized cadre of accounting, finance, and economics majors: New skills, especially coding, were in huge demand at Goldman Sachs—and pretty much everywhere else. The wind had shifted from our backs to our faces, and we needed to respond.

Not long ago the firm relied on a narrower set of factors for identifying “the best” students, such as school, GPA, major, leadership roles, and relevant experience—the classic résumé topics. No longer. We decided to replace our hiring playbook with emerging best practices for assessment and recruitment, so we put together a task force of senior business leaders, PhDs in industrial and organizational
psychology, data scientists, and experts in recruiting. Some people asked, “Why overhaul a recruiting process that has proved so successful?” and “Don’t you already have many more qualified applicants than available jobs?” These were reasonable questions. But often staying successful is about learning and changing rather than sticking to the tried-and-true.

Each year we hire up to 3,000 summer interns and nearly as many new analysts directly from campuses. In our eyes, these are the firm’s future leaders, so it made sense to focus our initial reforms there. They involved two major additions to our campus recruiting strategy—video interviews and structured interviewing.

**Asynchronous video interviews.** Traditionally we had flown recruiters and business professionals to universities for first-round interviews. The schools would give us a set date and number of time slots to meet with students. That is most definitely not a scalable model. It restricted us to a smaller number of campuses and only as many students as we could squeeze into a limited schedule. It also meant that we tended to focus on top-ranked schools. How many qualified candidates were at a school became more important than who were the most talented students regardless of their school. However, we knew that candidates didn’t have to attend Harvard, Princeton, or Oxford to excel at Goldman Sachs—our leadership ranks were already rich with people from other schools. What’s more, as we’ve built offices in new cities and geographic locations, we’ve needed to recruit at more schools located in those areas.

Video interviews allow us to do that. At a time when companies were just beginning to experiment with digital interviewing, we decided to use “asynchronous” video interviews—in which candidates record their answers to interview questions—for all first-round interactions with candidates. Our recruiters record standardized questions and send them to students, who have three days to return videos of their answers. This can be done on a computer or a mobile device. Our recruiters and business professionals review the videos to narrow the pool and then invite the selected applicants to a Goldman Sachs office for final-round, in-person interviews. (To create the video platform, we partnered with a company and built our own digital solution around its product.)

This approach has had a meaningful impact in two ways. First, with limited effort, we can now spend more time getting to know the people who apply for jobs at Goldman Sachs. In 2015, the year before we rolled out this platform, we interviewed fewer than 20% of all our campus applicants; in 2018 almost 40% of the students who applied to the firm participated in a first-round interview. Second, we now encounter talent from places we previously didn’t get to. In 2015 we interviewed students from 798 schools around the world, compared with 1,268 for our most recent incoming class. In the United States, where the majority of our student hires historically came from “target schools,” the opposite is now true. The top of our recruiting funnel is wider, and the output is more diverse.

Being a people-driven business, we have worked hard to ensure that the video interviews don’t feel cold and impersonal. They are only one component of a broader process that makes up the Goldman Sachs recruitment experience. We still regularly send Goldman professionals to campuses to engage directly with students at informational sessions, “coffee chats,” and other recruiting events. But now our goal is much more to share information than to assess candidates, because we want people to understand the firm and what it offers before they tell us why they want an internship or a job.

We also want them to be as well prepared as possible for our interview process. Our goal is a level playing field. To help achieve it, we’ve created tip sheets and instructions on preparing for a video interview. Because the platform doesn’t allow videos to be edited once they’ve been recorded, we offer a practice question before the interview begins and a countdown before the questions are asked. We also give students a formal channel for escalating issues should technical problems arise, though that rarely occurs.

We’re confident that this approach has created a better experience for recruits. It uses a medium they’ve grown up with (video), and most important, they can do their interviews when they feel fresh and at a time that works with their schedule. (Our data shows that they prefer Thursday or Sunday night—whereas our previous practice was to interview during working hours.) We suspected that if the process was a turnoff for applicants, we would see a dip in the percentage who
We are focused less on past achievements and more on understanding whether a candidate has qualities that will positively affect our firm and our culture. Our structured interview questions are designed to assess 10 core competencies.

accepted our interviews and our offers. That hasn’t happened.

**Structured questioning and assessments.** How can you create an assessment process that not only helps select top talent but focuses on specific characteristics associated with success? Define it, structure it, and don’t deviate from it. Research shows that structured interviews are effective at assessing candidates and helping predict job performance. So we ask candidates about specific experiences they’ve had that are similar to situations they may face at Goldman Sachs (“Tell me about a time when you were working on a project with someone who was not completing his or her tasks”) and pose hypothetical scenarios they might encounter in the future (“In an elevator, you overhear confidential information about a coworker who is also a friend. The friend approaches you and asks if you’ve heard anything negative about him recently. What do you do?”).

Essentially, we are focused less on past achievements and more on understanding whether a candidate has qualities that will positively affect our firm and our culture. Our structured interview questions are designed to assess candidates on 10 core competencies, including analytical thinking and integrity, which we know correlate with long-term success at the firm. They are evaluated on six competencies in the first round; if they progress, they’re assessed on the remaining four during in-person interviews.

We have a rotating library of questions for each competency, along with a rubric for interviewers that explains how to rate responses on a five-point scale from “outstanding” to “poor.” We also train our interviewers to conduct structured interviews, provide them with prep materials immediately before they interview a candidate, and run detailed calibration meetings using all the candidate data we’ve gathered throughout the recruiting process to ensure that certain interviewers aren’t introducing grade inflation (or deflation). We’re experimenting with prehire assessment tests to be paired with these interviews; we already offer a technical coding and math exam for applicants to our engineering organization.

We decided not to pilot these changes and instead rolled them out en masse, because we realized that buy-in would come from being able to show results quickly—and because we know that no process is perfect. Indeed, what I love most about our new approach is that we’ve turned our recruiting department into a laboratory for continuous learning and refinement. With more than 50,000 candidate video recordings, we’re now sitting on a treasure trove of data that will help us conduct insightful analyses and answer questions necessary to run our business: Are we measuring the right competencies? Should some be weighted more heavily than others? What about the candidates’ backgrounds? Which interviewers are most effective? Does a top-ranked student at a state school create more value for us than an average student from the Ivy League? We already have indications that students recruited from the new schools in our pool perform just as well as students from our traditional ones—and in some cases are more likely to stay longer at the firm.

What’s next for our recruiting efforts? We receive almost 500,000 applications each year. From this pool we hire approximately 3%. We believe that many of the other 97% could be very successful at Goldman Sachs. As a result, picking the right 3% is less about just the individual and increasingly about matching the right person to the right role. That match may be made straight out of college or years later. We’re experimenting with résumé-reading algorithms that will help candidates identify the business departments best suited to their skills and interests. We’re looking at how virtual reality might help us better educate students about working in our offices and in our industry. And we’re evaluating various tools and tests to bring even more data into the hiring decision process. Can I imagine a future in which companies rely exclusively on machines and algorithms to rate résumés and interviews? Maybe, for some. But I don’t see us ever eliminating the human element at Goldman Sachs; it’s too deeply embedded in our culture, in the work we do, and in what we believe drives success.

I’m excited to see where this journey takes us. Our 2019 campus class is shaping up to be the most diverse ever—and it’s composed entirely of people who were selected through rigorous, objective assessments. There’s no way we aren’t better off as a result.

DANE E. HOLMES is the global head of human capital management at Goldman Sachs.
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“Instead of waiting for customers to come to them, firms are addressing customers’ needs the moment they arise—and sometimes even earlier.”

—“THE AGE OF CONTINUOUS CONNECTION,” PAGE 64
The Age of Continuous
New technologies have made 24/7 customer relationships possible. It’s time to change your business model accordingly.
Thanks to new technologies that enable frequent, low-friction, customized digital interactions, companies today are building much deeper ties with customers than ever before. Instead of waiting for customers to come to them, firms are addressing customers’ needs the moment they arise—and sometimes even earlier. It’s a win-win: Through what we call connected strategies, customers get a dramatically improved experience, and companies boost operational efficiencies and lower costs.

Consider the MagicBands that Disney World issues all its guests. These small wristbands, which incorporate radio-frequency-identification technology, allow visitors to enter the park, get priority access to rides, pay for food and merchandise, and unlock their hotel rooms. But the bands also help Disney locate guests anywhere in the park and then create customized experiences for them. Actors playing Disney characters, for example, can personally greet guests passing by (“Hey, Sophia! Happy seventh birthday!”). Disney can encourage people to visit attractions with idle
IDEA IN BRIEF

THE OLD APPROACH
Companies used to interact with customers only episodically, when customers came to them.

THE NEW APPROACH
Today, thanks to new technologies, companies can address customers’ needs the moment they arise—and sometimes even earlier. With connected strategies, firms can build deeper ties with customers and dramatically improve their experiences.

THE UPSHOT
Companies need to make continuous connection a fundamental part of their business models. They can do so with four strategies: respond to desire, curated offering, coach behavior, and automatic execution.

ABOUT THE ART
Pete Mauney creates time-lapse photographs of the lights of airplanes streaking across the night sky.
capacity ("Short lines at Space Mountain right now!"). Cameras on a various rides can automatically take photographs of guests, which Disney can use to create personalized memory books for them, without their ever having to pose for a picture.

Similarly, instead of just selling textbooks, McGraw-Hill Education now offers customized learning experiences. As students use the company’s electronic texts to read and do assignments, digital technologies track their progress and feed data to their teachers and to the company. If someone is struggling with an assignment, her teacher will find out right away, and McGraw-Hill will direct the student to a chapter or video offering helpful explanations. Nike, too, has gotten into the game. It can now connect with customers daily, through a wellness system that includes chips embedded in shoes, software that analyzes workouts, and a social network that provides advice and support. That new model has allowed the company to transform itself from a maker of athletic gear into a purveyor of health, fitness, and coaching services.

It’s easy to see how Disney, McGraw-Hill, and Nike have used approaches like these to stay ahead of the competition. Many other companies are taking steps to develop their own connected strategies by investing substantially in data gathering and analytics. That’s great, but a lot of them are now awash in so much data that they’re overwhelmed and struggling to cope. How can managers think clearly and systematically about what to do next? What are the best ways to use all this new information to better connect with customers?

In our research we’ve identified four effective connected strategies, each of which moves beyond traditional modes of customer interaction and represents a fundamentally
new business model. We call them respond to desire, curated offering, coach behavior, and automatic execution. What’s innovative here is not the technologies these strategies incorporate but the ways that companies deploy those technologies to develop continuous relationships with customers.

Below, we’ll define these new connected strategies and explore how you can make the most of the ones you choose to adopt. But first let’s take stock of the old model they’re leaving behind.

**Buy What We Have**

**Most companies still** interact with customers only episodically, after customers identify their needs and seek out products or services to meet them. You might call this model buy what we have. In it companies work hard to provide high-quality offerings at a competitive price and base their marketing and operations on the assumption that they’ll engage only fleetingly with their customers.

Here’s a typical buy-what-we-have experience: One Tuesday, working from home, David is halfway through printing a batch of urgent letters when his toner cartridge runs out. It’s maddening. He really doesn’t have time for this. Grumbling, he hunts around for his keys, gets into his car, and drives 15 minutes to the nearest office supply store. There he wanders the aisles looking for the toner section, which turns out to be an entire wall of identical-looking cartridges. After scanning the options and hoping that he recalls his printer model correctly, he finds the cartridge he needs, but only in a multipack, which is expensive. He sets off in search of a staff member who might know if the store has any single cartridges, and eventually he locates a manager, who disappears into the back of the store to check.

Much time passes. When the manager at last returns, it’s to report regretfully that the store is sold out of single cartridges. Because he has to get his letters done, David decides to buy the multipack. He grabs one and heads to the checkout counter to pay, only to find himself waiting in a long line. When he finally gets home, an hour or two later, he’s not a happy guy.

We find it helpful to break the traditional customer journey into three distinct stages: recognize, when the customer becomes aware of a need; request, when he or she identifies a product or service that would satisfy this need and turns to a company to meet it; and respond, when the customer experiences how the company delivers the product or service. At each of these stages, David suffered a lot of discomfort, but at no point along the way did the toner company have any way of learning about his discomfort or alleviating it. Company and customer were poorly connected throughout, and both parties suffered.

It doesn’t have to play out that way. Each of our four connected strategies could have helped improve David’s customer experience at one or more of the stages and helped the company strengthen its business.

Let’s explore specifically what each strategy entails.

**Respond to Desire**

**This strategy involves** providing customers with services and products they’ve requested—and doing so as quickly and seamlessly as possible. The essential capabilities here are operational: fast delivery, minimal friction, flexibility, and precise execution. Customers who enjoy being in the driver’s seat tend to like this strategy.

To provide a good respond-to-desire experience, companies need to listen carefully to what customers want and make the buying process easy. In many cases, what matters most to customers is the amount of energy they have to expend—the less, the better!

That’s certainly what David wanted in his search for a toner cartridge. So let’s imagine a respond-to-desire strategy that might serve him well in the future.

Say that upon realizing that he needs a replacement, David goes online to his favorite retailer, types in his printer model, and with just a click or two makes a same-day order for the correct cartridge. His credit card number and address are already stored in the system, so the whole process takes just a minute or two. A few hours later his doorbell rings, and he has exactly what he needs.

Speed is critical in a lot of respond-to-desire situations. Users of Lyft and Uber want cars to arrive promptly. Health care patients want the ability to connect at any time of day or night with their providers. Retail customers
want the products they order online to arrive as quickly as possible—a desire that Amazon has famously focused on satisfying, in the process redefining how it interacts with customers. Years ago it set up a “one click” process for ordering and payment, and more recently it has gone even further than that. Today you can give Alexa a command to order a particular product, and she’ll take care of the rest of the customer journey for you. That’s responding to desire.

Curated Offering

WITH THIS STRATEGY, companies get actively involved in helping customers at an earlier stage of the customer journey: after the customers have figured out what they need but before they’ve decided how to fill that need. Executed properly, a curated-offering strategy not only delights customers but also generates efficiency benefits for companies, by steering customers toward products and services that firms can easily provide at the time. The key capability here is a personalized recommendation process. Customers who value advice—but still want to make the final decision—like this approach.

How might a curated-offering strategy serve David? Consider this scenario: He goes online to order his toner cartridge, and the site automatically suggests the correct one on the basis of what he has bought before. That spares him the hassle of finding the model number of his printer and figuring out which cartridge he needs. So now he just orders what the site suggests, and a few hours later, when his doorbell rings, he’s had his needs smoothly and easily met.

Blue Apron and similar meal-kit providers have very effectively adopted the curated-offering strategy. This differentiates them from Instacart and many of the other grocery delivery services that have emerged in recent years, all of which are guided by a “you order, we deliver” principle—in other words, a respond-to-desire strategy. The Instacart approach might suit you better than spending time in a supermarket checkout line, but it doesn’t relieve you of the burden of hunting for recipes and creating shopping lists of ingredients. Nor does it prevent you from overbuying when you do your shopping. Blue Apron helps on all those fronts, by presenting you with personally tailored offerings, creating an experience that many people find is more convenient, fun, and healthful than what they would choose on their own.

Coach Behavior

BOTH OF THE PREVIOUS two strategies require customers to identify their needs in a timely manner, which (being human) we’re not always good at. Coach-behavior strategies help with this challenge, by proactively reminding customers of their needs and encouraging them to take steps to achieve their goals.

Coaching behavior works best with customers who know they need nudging. Some people want to get in shape but can’t stick to a workout regimen. Others need to take medications but are forgetful. In these situations a company can watch over customers and help them. Knowledge of a customer’s needs might come from information that the person has previously shared with the firm or from observing the behavior of many customers. The essential capabilities involved are a deep understanding of customer needs (“What does the customer really want to achieve?”) and the ability to gather and interpret rich contextual data (“What has the customer done or not done up to this point? Can she now enact behaviors that will get her closer to her goal?”).

Here’s what a coach-behavior strategy for David might look like: Perhaps the printer itself tracks the number of pages it has generated since David last changed the toner and sends that information back to the manufacturer, which knows that he will soon need a new cartridge. So it might email him a reminder to reorder. At the same time, it might encourage him to run the cleaning function on his printer—a suggestion that will help him avoid later inconveniences. Coached in this way, David will have his new printer cartridge before the old one runs out; he’ll lose almost no time in replacing it; and he’ll have a clean printer that performs at its best.

To implement coach-behavior approaches well, a company needs to receive information constantly from its customers so that it doesn’t miss the right moment to suggest action. The technical challenge in this sort of
them audio training guides and plans. This kind of timely and personal connection builds trust and encourages customers to think of Nike as a health-and-fitness coach rather than just a shoe manufacturer, which in turn means that when the company’s app nudges them to run, they’re more likely to do it. This serves customers well, because it keeps them motivated and in shape. And it serves Nike well, of course, because customers who run more buy more shoes.

Automatic Execution

All the strategies we’ve discussed so far require customer involvement. But this last strategy allows companies to meet the needs of customers even before they’ve become aware of those needs.

In an automatic-execution strategy, customers authorize a company to take care of something, and from that point on the company handles everything. The essential elements here are strong trust, a rich flow of information from the customers, and the ability to use it to flawlessly anticipate what they want. The customers most open to automatic execution are comfortable having data stream constantly from their devices to companies they buy from and have faith that those companies will use their data to fulfill their needs at a reasonable price and without compromising their privacy.

Here’s how automatic execution might work for David. When he buys his printer, he authorizes the manufacturer to remotely monitor his ink level and send him new toner cartridges whenever it gets low. From then on, the onus is on the company to manage his needs, and David is spared several hassles: recognizing that he’s low on toner, figuring out how to get more, and buying it. Instead, he just goes about his business. When the time is right, his doorbell will ring, and he’ll have exactly what he needs.

The growing internet of things is making all sorts of automatic execution possible. David’s printer cartridge scenario isn’t just hypothetical: Both HP and Brother already have programs that ship replacement toner to customers whenever their printers send out a “low ink” signal. Soon our refrigerators, sensing that we’re almost out of milk, will be able to order more for delivery by tomorrow morning—but

relationship lies in enabling cheap and reliable two-way communication with customers. Traditionally, this had been difficult, but it’s getting easier all the time. The advent of wearable devices, for example, allows health care companies to hover digitally over customers around the clock, constantly monitoring how they’re doing.

Nike’s new business model incorporates coach-behavior strategies. By making its customers part of virtual running clubs and tracking their runs, the company knows when it’s time for their next workout, and through its app it can offer

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CUSTOMERS
naturally only after checking our calendar to make sure we’re not going on a vacation and wouldn’t need milk after all.

Automatic execution will make people’s lives easier and in some cases will even save lives. Consider fall-detection sensors, the small medical devices worn by many seniors. Initially, the companies who made them did so using the respond-to-desire model. If an elderly person who was wearing one fell and needed help, she could press a button that activated a distress call. That was good, but it didn’t work if someone was too incapacitated to press the button. Now, though, internet-connected wearable technologies allow health care companies to monitor patients constantly in real time, which means people don’t need to actively request assistance if and when they’re in distress. Imagine a bracelet that monitors vital signs and uses an accelerometer to detect falls. If a person wearing the bracelet slips, tumbles down the basement stairs, and is knocked unconscious, the bracelet’s sensor will immediately detect the emergency and summon help. That’s automatic execution.

We’re excited about automatic execution, but we want to stress that we don’t see it as the best solution to all problems—or for all customers. People differ in the degree to which they feel comfortable sharing data and in having the companies serving them act on that data. One family might be delighted to receive an automatically generated personal memory book after a visit to Disney World, but another might think it’s creepy and invasive. If companies want customers to make a lot of personal data available on an automated and continuous basis, they will need to prove themselves worthy of their customers’ trust. They’ll need to show customers that they’ll safeguard the privacy and security of personal information and that they’ll only recommend products and services in good faith. Breaking a customer’s trust at this level could mean losing that customer—and possibly many other customers—forever.

A final important point: Given that companies are likely to have customers with different preferences, most firms will have to create a portfolio of connected strategies, which will require them to build a whole new set of capabilities. (See the sidebar “Which Connected Strategies Should You Use?”) One-size-fits-all usually won’t work.

**Repeat**

Earlier, we mentioned that we like to think of the individual customer journey as having three stages: recognize, request, and respond. But there’s actually a fourth stage—repeat—which is fundamental to any connected strategy, because it transforms stand-alone experiences into long-lasting, valuable relationships. It is in this stage that companies learn from existing interactions and shape future ones—and discover how to create a sustainable competitive advantage.

The repeat dimension of a connected strategy helps companies with two forms of learning. First, it allows a company to get better at matching the needs of an individual customer with the company’s existing products and services. Over time and through multiple interactions, Disney sees that a customer seems to like ice cream more than fries, and theater performances more than fast rides—information that then allows the company to create a more enjoyable itinerary for him. McGraw-Hill sees that a student struggles with compound-interest calculations, which lets it direct her attention to material that covers exactly that weakness. Netflix sees that a customer likes political satire, which allows it to make pertinent movie suggestions to her.

Second, in the repeat stage companies can learn at the population level, which helps them make smart adjustments to their portfolios of products and services. If Disney sees that the general demand for frozen yogurt is rising, it can increase the number of stands in its parks that serve frozen yogurt. If McGraw-Hill sees that many students are struggling with compound-interest calculations, it can refine its online module on that topic. If Netflix observes that many viewers like political dramas, it can license or produce new series in that genre.

Both of these loops have positive feedback effects. The better the company understands a customer, the more it can customize its offerings to her. The more delighted she is by this, the more likely she is to return to the company again, thus providing it with even more data. The more data the company has, the better it can customize its offerings. Likewise, the more new customers a company attracts through
its superior customization, the better its population-level data is. The better its population data, the more it can create desirable products. The more desirable its products, the more it can attract new customers. And so on. Both learning loops build on themselves, allowing companies to keep expanding their competitive advantage.

Over time these two loops have another very important effect: They allow companies to address more-fundamental customer needs and desires. McGraw-Hill might find out that a customer wants not just to understand financial accounting but also to have a career on Wall Street. Nike might find out that a particular runner is interested not just in keeping fit but also in training to run a first marathon. That knowledge offers opportunities for companies to create an even wider range of services and to develop trusted relationships with customers that become very hard for competitors to disrupt.

We can’t tell you where all this is headed, of course. But here’s what we know: The age of buy what we have is over. If you want to achieve sustainable competitive advantage in the years ahead, connected strategies need to be a fundamental part of your business. This holds true whether you’re a start-up trying to break into an existing industry or an incumbent firm trying to defend your market, and whether you deal directly with consumers or operate in a business-to-business setting. The time to think about connected strategies is now, before others in your industry beat you to it.

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What Western Marketers Can Learn from China

Think content, not channels or advertising.
In 2017, the fast-growing Chinese liquor brand Xi Jiu wanted to launch an ad campaign to boost sales in anticipation of Chinese New Year. If Xi Jiu were a large Western company in a developed market, its brand managers would have begun laying plans many months in advance—consulting with an ad agency; allocating money to TV, online, and billboards; brainstorming creative approaches; and filming commercials.

But Xi Jiu’s approach to its home market was entirely different: It partnered directly with Tencent News, China’s most popular news app. Together, the liquor company and the technology firm created a series of hour-long, live-streamed shows in which great chefs from different regions of China taught viewers to cook local specialty dishes, pairing them with offerings from the liquor brand. The native-advertising content was highlighted across Tencent’s news, social, entertainment, and gaming platforms, and more than 1.2 million people clicked through on their mobile phones to watch each day. Instead of spending months meticulously planning the campaign, Xi Jiu and Tencent produced the content—conceiving, negotiating, creating, and airing the shows—in just five days. And when the

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**IDEA IN BRIEF**

**THE PROBLEM**
Western executives of multinational brands seeking to expand globally are quick to export their media and ad strategies to developing markets. But these theories and practices, created largely in the West, are not enough to succeed in China’s new landscape.

**THE CONTEXT**
Chinese marketers rely on the creation of shareable, viral content and the presence of dominant, channel-straddling media giants. The Chinese approach is faster, cheaper, and often more effective than Western marketing is. It’s also more embracing of risk.

**THE WAY FORWARD**
Western firms must learn to adapt in six ways to successfully market in China. These techniques may also help them compete around the world.
Western managers, entrenched in their established mindset, may underestimate the power of China’s new competencies.

programs aired, there was no mention of price promotions or discounts on the liquor—the campaign was aimed entirely at building consumer awareness and engagement.

For decades now, Western executives of multinational brands seeking to expand globally have operated under a simple premise: Although marketing content and channel selection should be customized to local markets, Western marketing principles are universal. Firms are particularly quick to export their media and ad strategies to developing markets, where advertising and media are more recent developments. After spending time in China conducting in-depth interviews with C-level leaders from a dozen Chinese companies (including Tencent, Oppo, and Mengniu) and 15 multinationals with a significant presence in China (including McDonald’s, Visa, and BMW), I am convinced that this view is wrong.

Chinese marketers have developed a unique approach tailored to China’s mobile-first consumer. It relies on the creation of shareable, viral content and the presence of dominant, channel-straddling media giants. It is faster, cheaper, and in some respects more effective than the traditional Western marketing paradigm. It also is more embracing of risk. For companies that hope to enter China or grow existing operations there, understanding the Chinese marketing mindset will be essential to achieving success. And although the holistic approach was born out of the idiosyncratic structure of the Chinese market and thus may not be directly applicable to every country’s media landscape, in some ways it may be better suited to today’s global marketplace than traditional Western methods are.

As a former marketing head who worked to build global brands in overseas markets, and now as an academic studying corporate marketing, I am both thrilled and alarmed by what’s happening in China. It’s thrilling to see a new generation of marketers devising completely new ways to engage with consumers. It’s alarming because Western managers, entrenched in their established mindset, may underestimate the power of the new competencies or dismiss them as a market-specific, tactical nuance. They do that at their peril, however: To compete effectively in China, Western companies must understand that marketing there is not business as usual—and ideally, they will learn to apply some of these lessons to developed markets, too.

**China’s Market Is Fundamentally Different**

**China’s Evolving Approach** to marketing is different from that of developed economies because its market is different, in four key respects:

**Channel-straddling media giants.** The first and most important difference is the presence of channel-straddling media powerhouses. These include, most notably, Baidu, Alibaba, and Tencent, which together are known by the acronym BAT. To put this in a Western context, imagine if Amazon, Bank of America, Google, Facebook, Activision Blizzard, CNN, and ESPN were all owned by one company. That’s essentially how the big conglomerates work in China, with the BAT companies controlling most of the digital content across industries. For example, Tencent owns the world’s largest gaming platform, a wide array of news agencies, the dominant social media platforms in China (Weixin and WeChat), financial services platforms (WeChat Pay and QQ Red Envelope Mobile Pay), retail investments (Tencent is the second-biggest shareholder in JD.com, one of China’s largest online retailers), Tencent Video (the largest streaming service in China, with over 43 million subscribers), and Tencent Sports (China’s number one online sports-media platform). Almost all media activity in China is consolidated on mobile devices, with consumers spending, on average, seven hours a day looking at their phones—approximately twice as much time as Americans spend. Remarkably, 55% of all online time spent by Chinese consumers is within the Tencent ecosystem of companies, according to data from Kleiner Perkins.

The regulatory environment in the West prohibits such concentration, and as a result, Western marketers have been trained to use highly fragmented, channel-centric strategies to reach consumers. Marketing theories developed in this kind of media landscape don’t easily translate to China—and perhaps more important, they may blind Western companies to the opportunities that exist when data is aggregated within a single, channel-straddling company.

**A world of closed-loop data.** In the West, marketers typically analyze data from, for instance, Facebook, CNN, People, and the Wall Street Journal separately, because information isn’t easily connected across different channels at the consumer level. However, as much as privacy advocates...
dislike the linking, selling, and integrating of information, companies need access to closed-loop data at the individual level across every aspect of a person’s life in order to develop deep consumer understanding and improve marketing relevancy. This is precisely the kind of integrated data that the BATs have. Marketers can see how a particular customer approaches banking, entertainment, gaming, social media, and news, and then create more-relevant and -engaging experiences for them.

Consider a U.S. computer programmer I’ll call Joe. He is 28 years old and earns $70,000 a year. He buys most of his clothing from one retailer, which captures every purchase he makes at its stores and website. But Joe’s life consists of much more than stocking his wardrobe. Like most people, he also spends a lot of time on his smartphone. Every morning, he checks his social media accounts. He plays an online game on the bus ride to work. Over lunch, he scans the sports news. During the commute home, he reads an online book. Spotting a coupon for pizza on Facebook, he might order one. He gets an email about a concert and orders tickets before it sells out. And he buys a new shirt for the show.

This shirt purchase is the only data point the clothing retailer sees, just as the pizza store notes only the coupon’s effect and the concert vendor captures just the ticket purchase. Each company has a little window into Joe’s life; this context explains Western marketers’ mastery of channel-based marketing—via TV, radio, print, digital, social media, and so forth. By contrast, the BATs’ vast data ecosystem allows an integrated view of customers’ lives across all channels, instead of just snippets. With this holistic understanding, the marketer can create programming that ties shopping, gaming, news, reading, video-watching, and celebrity-following habits into smarter, more contextually relevant engagement.

Let’s say that Joe regularly appears on his social media pages wearing college basketball jerseys and spends hours playing Fortnite. In a world of closed-loop data, the marketer could reach Joe across the different areas of interest and create content that resonates with him (such as using game-based formats). This is a simple example; now imagine the potential if you were able to integrate across all aspects of a consumer’s life. In China, this is becoming more common.

Although some people fear that Western companies such as Google can peer into every nook of our lives, their hold on customer data is significantly more limited than the BATs’.

**A mobile-first market development.** In the West, media developed sequentially over the past century, with radio giving way to TV, followed by the personal computer and then mobile. In China, the evolution happened much more rapidly, essentially leapfrogging the PC to move straight to mobile. Thus, the marketing theory, principles, and methods developed in China were built on the assumption that mobile devices are the primary way to reach consumers. Tsuyoshi Suganami, president of Amplifi China (Dentsu Aegis Network), pointed out that on China’s biggest shopping day, known as Double Eleven or Singles Day, consumers bought over $25 billion worth of merchandise—more than U.S. customers bought on Black Friday and Cyber Monday combined—with 90% of the purchases made on mobile phones.

For decades, Western marketers have had multiple open channels through which to reach consumers: TV, direct mail, magazines, radio, billboards, newspapers, email, websites, and so forth. These vehicles create a promotion-centric mindset, partly because each needs to generate immediate results to prove that it’s earning an ROI on the ad spend. In contrast, China’s mobile-centric platform has enabled marketers to focus on content-based experiences that will connect with consumers and change behavior quickly. “The Chinese approach starts with thinking about content, information, and knowledge that could be engaging and shared,” said Danielle Jin, chief marketing officer for Visa Greater China. “It isn’t about advertising and price promotions.”

**A focus on speed.** Marketers in China make decisions more quickly than their Western counterparts do, mainly because firms in that fast-growing economy need to show momentum to keep investors on board. Scott Beaumont, head of Google’s China and Korea sales operations, put it this way: “Companies are in a race to determine which two or three will be left standing, and as soon as it’s clear that a company won’t be, funding dries up.” Marketers, he noted, recognize that a campaign needn’t be perfect as long as it makes clear progress toward driving awareness and traffic.

Western marketers do not aim to be slow, of course. But there is a central difference in approach, with large Western firms emphasizing scale and efficiency (a profit mindset) while Chinese marketers focus on speed and growth (a revenue mindset). Among the China-based teams of Western multinational firms I’ve met, this is a significant tension. Local managers are hampered by layers of global management that tend to slow down decision making, even as they interact with Chinese marketers accustomed to working quickly. “The speed at which they work is intimidating,” Beaumont told me. “It’s hard to comprehend how big of an impact it has.”
Western firms emphasize scale and efficiency (a profit mindset) while Chinese marketers focus on speed and growth (a revenue mindset).

How Western Companies Must Change

When put together, those four factors point to serious adjustments companies must make in how they plan and execute marketing—and in the competencies marketers need to succeed in China. They must:

**Build closer and deeper relationships with the BATs.** Marketers should stop relying on their ad agencies to develop relationships with conglomerates and dominant channel players and instead engage directly with the BATs, drawing on their data, knowledge, and expertise to devise better marketing programs.

This kind of relationship will be familiar to Western marketers: It is how they work with powerhouse retailers like Carrefour and Walmart. Historically, manufacturers would entrust retail relationships to their sales teams. However, as retail giants gained market power, companies began colocating their marketing staff with these important partners to gain access to data and customer insights and to create stronger partnerships. Marketers must now do the same with the BATs.

Consider how BMW and Tencent collaborated to co-design the launch of a new SUV model at the Beijing Motor Show. Mei Xiaoqun, marketing vice president at BMW in China, was directly involved with counterparts at Tencent. The objective was to create an auto show experience that would lead to immediate awareness and interest not just among people attending the show but for consumers across China. Through a cross-platform effort spanning Tencent’s entertainment, sports, news, gaming, and finance divisions, the marketers created a live concert as the platform for a virtual car show and invited singers from different eras to participate. The live show, designed to enable a superior mobile experience, featured “key opinion leaders” (KOLs)—individuals with tremendous social influence—who also had conducted virtual test-drives that were shared with millions of their fans. The program included real-time interaction in which young people voted for their favorite test-drive experience, sparking a sense of competition among fans. Some 10 million people viewed the concert, and more than 22,000 people went on virtual ride-alongs with KOLs that showcased the features of the vehicle. The speed at which the program was conceived and executed and its magnitude and impact would not have been possible without direct collaboration between BMW and Tencent’s ecosystem of companies. A campaign like this exceeds anything marketers typically think of doing with American internet powerhouses such as Amazon, Facebook, and Google.

Steven Chang, then-corporate vice president at Tencent, told me that direct partnerships between the Chinese conglomerate and Western multinationals still have far to go. “We are just beginning to scratch the surface of what is possible,” he said. “The ability to create connected, cross-channel programs is unparalleled, and it will take even greater collaboration to activate the potential.”

**Adopt a mobile-first mindset.** Marketers should begin creating experiences that are centered on a mobile-first way of thinking. Consider an example cited by Aaron Shapiro, the founder and former CEO of Huge (sold to IPG), a global digital marketing firm that does extensive business in China. His firm worked with the Procter & Gamble skin care brand SK-II on programs in China using a virtual reality experience in which a smartphone is inserted in a VR headset—an approach that would be hard to replicate in an environment other than mobile. The brand cast the popular Taiwanese actor Wallace Huo in a video that explored the origin story of Pitera, a “miracle” ingredient that’s the foundation of all SK-II’s products. “Scenes of Wallace bookend a fully rendered 360-degree video that follows the journey from the insight in a sake brewery [when a scientist noticed that workers had unusually youthful-looking hands] to the hard-earned discovery of Pitera,” Shapiro told me. Within a week, 20,000 custom VR headsets used to view the video sold out, and the content-focused promotion helped drive SK-II’s biggest day of sales ever, on Singles Day in 2016.

Many Western marketers think of mobile as simply a smaller version of television. It’s not. It’s an entirely new medium that should become marketers’ primary focus, not something they think about only after they’re done planning next year’s Super Bowl halftime ad. When it comes to advertising on mobile, U.S. companies lag behind. For instance, in each of the past three years, the best-in-show award at Smartsies, a competition that judges mobile advertising, has gone to a non-U.S. company. “Marketers in the U.S. have a lot of historical and measurement support for channels other
than mobile, and I think that has inhibited them from taking the time to figure out how to innovate in mobile,” said Greg Stuart, global CEO of the Mobile Marketing Association. “Other countries seem to have been earlier to [understand] mobile’s power and to capitalize more on it, given they have fewer options to get to consumers.”

**Go all-in on a social, viral approach.** What would Western marketers do if they were told to drive immediate awareness without using traditional advertising—no radio, TV, digital, billboard, print, or other common channels? This is where many in China start. They believe that virality through socially engaging content is faster and cheaper and yields better results than advertising.

KOLs are seen as critical to this approach. “The intensity associated with using KOLs in China is unique relative to almost any other country,” said Vishal Bali, managing director of Nielsen. “It isn’t just a KOL sharing something on social media. They now do a lot of live-casting and streaming where fans can interact with them. In real time, you can watch sign-ups, engagement, and brand impact. KOLs are starting to cut across sports, dramas, gaming, live drama...everywhere.” Indeed, China’s “fan economy”—in which celebrities and other major social influencers are able to monetize their fame by driving purchases of items they endorse—is far better developed and a much more important marketing vehicle than Western Instagram culture, even for megastars like the Kardashians.

McDonald’s has used the KOL approach in China to great effect. For example, when Zhou Zekai, a wildly popular professional video-game player, shared the fast-food chain’s new Jumbo Cone ice cream offering on social media, more than 5.5 million cones were sold in the first 10 days. Burberry created a campaign featuring blogger Tao Liang, a fashion guru better known by his alias, Mr. Bags, to launch its new line of DK88 leather bags to his more than 2.7 million Weibo and 600,000 WeChat followers. The collaboration meant that Tao could exclusively offer a certain color of the DK88 (bright toffee) to his “bagfans” through his own WeChat account. When the event went live, his entire limited edition sold out in eight minutes. In February 2017, in the same kind of program, Mr. Bags sold 80 pink Horizon bags for Givenchy, each costing 14,900 RMB ($2,164), in just 12 minutes.

Although Western marketers, especially B2B firms, are increasingly recognizing the importance of influencers, these programs are still afterthoughts, managed by junior marketers and given lower levels of investment, both intellectually and financially. But in a world where speed is critical to success, virality should be a central strategy. Western marketers must develop skill in this area, by increasing their investment and involving senior marketers.

**Move from promotions to content-based engagement.** In the West, when teams of marketers work with Walmart, Amazon, and other leading retailers, their aims are tactical. What price promotions can they create? Can they get better shelf space? How can they make their brands jump higher in search results? Such plans, based on a discounted price and developed months or even years in advance, train consumers to buy on sale. Engagement-first approaches—such as those behind the campaigns at BMW, P&G, McDonald’s, and Burberry—encourage consumers to make purchases out of passion and joy, resulting in stronger brand-consumer relationships. This isn’t “co-op advertising” or price-based promotion. It’s content that consumers want to watch and share, driving engagement and influencing behavior. This is harder to do than creating a BOGO (buy one, get one) or a temporary price reduction, but it has the potential to yield more-permanent changes in behavior.

**Shift from channel management to cross-platform integration.** Marketers should think about creating a single brand experience that cuts across channels (in the West) or across platforms (in China). Consider a program led by Christine Xu, CMO for McDonald’s China, and Helen Luan, general manager of Tencent’s advertising account department, in which they collaborated to build a seamless, connected consumer experience. In 2017, Tencent purchased the rights to the Chinese novel *The King’s Avatar* and created a popular game, a nine-book series, and an online animated series based on it. McDonald’s and Tencent worked to integrate McDonald’s into the animated series in a way that went beyond product placement, making the products part of the story itself. The program was rolled out across Tencent’s gaming, digital book, social, banking, and animated series platforms. It was then expanded to an off-line experience through integrated product innovation, content, KOLs, and even a McDonald’s store designed to mirror the one featured in the comic, which drove record-level traffic as fans traveled to the “holy site” to see the experience brought to life. The program’s results were record-breaking, and the series has been watched by more than 17 million people.

Global firms that are used to operating in fragmented markets should be working with the Chinese conglomerates to co-create, test, develop, and learn. As more Chinese companies expand to the West or invest in Western firms, companies...
that do not operate in China will need to learn how their new competitors use cross-platform integration to gain advantage.

**Question the value of planning versus speed.** Marketers must recognize that process innovation, which drives speed, is as valuable as product innovation. Danielle Jin of Visa recalled how she approached her job when she worked as a marketer in the U.S. consumer packaged goods industry. “We would sit down with Walmart one to two years in advance and think about what seasonal promotion we would want to have,” she said. “We would have a thought-out calendar that centered primarily on price promotions—a system and process created over decades that was based on a somewhat rigid planning process.” By contrast, she explained, “a marketer with a Chinese mindset would talk about creating seamless content that cut across multiple platforms and was temporally relevant.”

In China, marketing executives speak disparagingly about “strategy,” but they aren’t using that term the way Westerners do. They really mean the painstaking, bureaucratic, process-heavy planning that takes place in firms in which economies of scale, efficiency, and risk management have become more important than speed. That way of thinking is in direct conflict with agility and risk taking. “Chinese companies have a growth mindset,” explained Hai Ye, a partner at McKinsey & Company. “Many of them can tolerate relatively low profitability in order to scale up quickly. This difference—driving market share versus bottom-line profit—gives the Chinese companies an advantage because they are willing to make big investments and take short-term losses to achieve long-term dominance.”

Consider the common multinational practice of standardizing products across markets. A company that manufactures and sells laundry detergent in Country A, Country B, and Country C, for example, may find it more cost-effective to create one formula for all three markets (even if it uses different brand names) rather than develop specific products for each country. While this drives efficiency, it doesn’t take into account the potential (negative) impact on speed, growth, and market share. Consumers in each country have different tastes and values and, therefore, different standards of quality. When a manufacturer decides to create a single product for multiple markets, it typically designs to the highest standard. Even though the detergent company could quickly develop and launch a basic product that would sell well in Country A, which has lower requirements, it needs to wait until the product is refined for Country C, the most-demanding market, before it launches in all three. The efficiency gained by developing and producing one product for all markets comes at a cost: Rivals focused on only one market can innovate and introduce products much faster, potentially gaining market share. And the detergent manufacturer has to align only three countries; imagine the effect on speed when multinationals have to align dozens.

Moving faster requires a greater tolerance of risk and an emphasis on agile systems, processes, and decision making. It requires a mindset reminiscent of a start-up company’s. To achieve this shift, companies should value process improvements that drive speed as much as they value scale and efficiency. Likewise, marketers should value process innovation as much as they value product innovation. And companies should find ways to quantify the cost of delays as accurately as the cost of inefficiency.

**DURING THE 1990S**, I worked in global strategy for the personal-cleansing category at Procter & Gamble. A sizable piece of the business came from the Chinese market, so I spent much of my time traveling there, focusing on how to grow the business. Based on that experience, when I moved into academics I felt I had a foundational understanding of how to market in China. Twenty years later, my research with C-suite marketers in China has convinced me that those marketing theories and practices, largely created in the West and taught in school today, are not enough to succeed in China’s new landscape. China’s market is fundamentally different, which has given rise to a different marketing mindset and drives a different set of competencies. Whether Western firm leaders embrace or ignore the emerging mindset may very well determine their success in China—and eventually, their ability to compete around the world.

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The ideal future leader embodies all five ADAPT dimensions at a very high level. They combine future-focused strengths which anticipate changing realities and drive themselves and the business with purpose. They can accelerate their strategy and vision and they are native collaborators, partnering with others to build trust and strong, symbiotic relationships. They are exceptional all-rounders and, represent the highest-performing leaders in the world.

**IT’S TIME TO ADAPT**

Paving the way for these disruptors means companies must overhaul not only their leadership development programs but the structure and culture of their businesses.

But how exactly do you get from here, to tomorrow? And how do you identify, attract, develop, retain, promote, and expand the talent you need to succeed? Consider these four key points:

1. **Nurture your talent pool:** Make the most of the talent that already exists in your company. Many future-leaders occupy lower-level roles in the organization, but they need exposure to training and mentorship. Circulate these people throughout your organization to stimulate them, teach new skills, and help them experience different ways of working.

2. **Manage talent as a system:** Widen and maintain a flow of diverse talent by ensuring traditional HR functions from recruitment to compensation work holistically. Only by developing new mindsets to successfully advance Self-Disruptive Leaders, opening up leadership development opportunities for existing staff, and fostering an “always-on” development structure, will you be ready for the future.

3. **Prioritize leadership development:** Accelerate the identification, recruitment, retention, development, and promotion of leaders with self-disruptive potential at all levels of the business. Only by acting with urgency will you be able to capitalize on an increasingly digital and disruptive business world.

4. **Empower ADAPT:** Develop a culture that empowers everyone within your organization to challenge their own thinking and disrupt themselves. By cascading ADAPT qualities throughout the business, you can build a self-perpetuating ecosystem of leaders. Leaders who will be ready, whatever the future brings.

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Future-Proof Your Climate Strategy

Smart companies are putting their own price on carbon.

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KIRSTEN ULVE

OPERATIONS
As global weather becomes more extreme, the threat that climate change poses for companies is no longer theoretical. Businesses are working to protect their assets and supply chains from increasingly severe hurricanes, heat waves, fires, and droughts. More and more companies are figuring such “climate risk” into their calculations, and investors are paying close attention. But there is a related threat that many haven’t fully taken in: carbon risk—the impact of climate-change policies on a company’s strategy and returns. As global warming worsens, companies can expect tougher government measures that will extract a growing price for their carbon emissions. These mechanisms could sideline the unprepared. In this article we describe the approach used by more and more companies to brace for the future and even flourish in it: internal carbon pricing. (See the exhibit “The Rise of Internal Carbon Pricing.”) At its core, this involves setting a monetary value on the company’s own emissions that reflects carbon prices outside the firm. In 2017 nearly 1,400 companies were actively using internal carbon pricing or planning to do so. As we’ll show, by putting their own price on carbon, companies can better evaluate investments, manage risk, and forge strategy.
IDEA IN BRIEF

THE CHALLENGE
Companies commonly take into account climate-change threats to their assets and operations. But they are less proactive about considering the risks that climate-change policies pose to their strategy and returns.

THE SOLUTION
Predicting that those policies will extract a growing price for firms’ carbon emissions, more and more companies are setting a monetary value on their own emissions to help them evaluate investments, manage risk, and develop strategy.

THE PROCESS AND THE PAYOFF
Companies must forecast future carbon prices in the jurisdictions where they do business and then set an internal carbon price (ICP) that reflects their emissions and the likely trajectory of carbon prices set by governments. A carefully calculated ICP can position a firm for future regulation and help it gain long-term advantage.
Before we get into the details, let’s consider the context. U.S. companies may think the pressure’s off, given the Trump administration’s efforts to dismantle existing climate and energy policies. But the rest of the world, and many U.S. states, are plowing ahead to strengthen their efforts to fight climate change. More than 60 regional, national, and subnational governments—representing about half of the global economy—have implemented policies that price carbon emissions, and 184 nations have ratified the Paris Agreement to reduce them. The governments of Mexico, Sweden, British Columbia, and other jurisdictions are currently levying taxes. And China, the European Union, and California are among those rolling out cap-and-trade programs that put a ceiling on total emissions to create incentives for reducing them. (See the sidebar “How Governments Price Carbon.”)

Thus even with the policy retreat under way in Washington, DC, American corporations must actively manage the potential increased cost of their emissions if carbon prices rise—for several reasons. First, state-level cap-and-trade programs have already led to carbon pricing for about one-quarter of the electricity consumed in the United States. Second, federal and state policies—such as regulations pertaining to fuel economy, the energy efficiency of appliances, biofuels, and renewable power—can impose an implicit carbon price on the firms that must comply with those rules. Third, the likelihood of expanded carbon pricing under a future administration and Congress must be considered when making investments in long-lived equipment, factories, and power plants. Finally, many American corporations operate in or sell products to countries that have already implemented cap-and-trade programs or carbon taxes.

It’s no wonder that companies are finding it hard to quantify the risk posed by this myriad of policies or to see potential opportunities. And consider how heterogeneous and volatile the policies are. Cap-and-trade emission allowances in the EU Emissions Trading System, for example, were trading at €5 per ton of carbon dioxide in 2017 but jumped to more than €20 per ton in 2018. Those prices apply to some sources of carbon dioxide in Sweden, but others there face a separate carbon tax greater than €90 per ton. And California’s emission allowances have traded at prices three times those in the Regional Greenhouse Gas Initiative, a power-sector cap-and-trade program in the Northeast and mid-Atlantic states.

Carbon policies may be all over the map, but one thing is virtually certain: In time, every jurisdiction will have some pricing scheme in place. By setting an internal carbon price (ICP), companies can prepare for uncertain external pricing in the future, and investors can get a clearer picture of a firm’s ability to compete in a low-carbon world.

**Getting Started**

**INTERNAL CARBON PRICING** allows companies to place a monetary value on emitting a ton of carbon, even when few or none of their operations are currently subject to external carbon-pricing policies and related regulations. Companies use internal pricing in three key ways: to inform decisions about capital investments (especially when projects directly affect emissions, energy efficiency, or changes in the portfolio of energy sources); to measure, model, and manage the financial and regulatory risks associated with existing and potential government pricing regimes; and to help identify risks and opportunities and adjust strategy accordingly.

Although an ICP may be levied as an actual fee on business units within a company (as we discuss later), it is more
How Governments Price Carbon

Governments have two direct mechanisms for pricing carbon: a tax on CO₂ emissions and a market-based cap-and-trade scheme. Governments can also indirectly affect carbon pricing by enacting energy regulations that result in compliance costs for companies.

**Carbon tax.** A carbon tax is straightforward: A government imposes a tax on each ton of carbon dioxide emitted. But gauging emissions is tricky—it’s not easy to measure the CO₂ flowing from the tailpipes of a fleet of trucks, for instance. Therefore, a carbon tax is often applied not to actual emissions but to the carbon content of fossil fuels used, because the complete combustion of a ton of coal, a cubic foot of natural gas, or a barrel of oil produces a known quantity of carbon dioxide.

In the United States, applying a carbon tax could be administratively simple if it piggybacked on existing excise taxes for oil and coal. Refineries and importers of refined petroleum products already pay a tax of nine cents a barrel to finance the Oil Spill Liability Trust Fund, and coal mine operators pay a per-ton tax to support the Black Lung Disability Trust Fund. Imposing a carbon tax on natural-gas processors and importers would cover the balance of fossil fuel companies. Such a scheme would apply to about 98% of U.S. carbon dioxide emissions by covering only a few thousand producers as opposed to the hundreds of millions of smokestacks, tailpipes, and other sources of emissions. And judging from the experiences under similar upstream carbon taxes in British Columbia and Northern Europe, a tax would pass through to energy prices, creating incentives for energy efficiency, conservation, and lower-carbon sources of energy.

**Price implied by regulation.** Government energy policies do not always put an explicit price on carbon; sometimes they merely create implicit prices by imposing compliance costs on companies. The government might, for instance, require that a share of electricity generation come from renewable sources or that an appliance meet a minimum energy-efficiency standard. In such cases, the carbon price isn’t determined by a tax or a cap-and-trade program, but individual firms can estimate an implied price by calculating how much they spend to comply with the regulations. Implied prices are less transparent than those determined by a tax or a market for allowances, and they are likely to vary from firm to firm, but they can still inform a company’s strategic decisions.

Measuring Carbon Footprints

**AT THE OUTSET,** companies must get a clear picture of their emissions. Since different countries (and different states in the same country) are adopting different environmental
After mapping their emissions, companies should examine their exposure to current and estimated future carbon prices, beginning with an assessment of existing climate policies in the countries where they operate or plan to operate.
expand. In jurisdictions with cap-and-trade policies, the price placed on a ton of carbon is made explicit in the marketplace for emissions allowances—for example, on the European Energy Exchange platform. In other jurisdictions, carbon tax rates can be easily determined by looking at national tax laws. Additionally, several international organizations have compiled explicit and implicit carbon prices under existing government policies. The World Bank provides updated data from each national regulatory system in its annual *State and Trends of Carbon Pricing*. The OECD has recently published “effective carbon rates” that account for explicit carbon prices (such as EU Emissions Trading System allowance prices) and implicit carbon prices (such as gasoline taxes and regulatory mandates).

Current carbon prices are useful data points, but to build a long-term strategy, companies also need to make predictions about future carbon prices. This is a daunting exercise, given the lack of clear and consistent signals from governments and the uncertainty about technological and economic developments that could affect carbon pricing policies. But a collaborative approach can help.

In 2017 CDP (formerly the Carbon Disclosure Project) and the We Mean Business coalition created the Carbon Pricing Corridors initiative, which engages large companies in identifying industry-specific carbon price levels necessary to achieve the Paris Agreement goals. For example, in the chemical industry (according to executives from companies representing about $200 billion in market capitalization), carbon prices for 2020 should range from $30 to $50 per ton, increasing to $50 to $100 per ton by 2035. These numbers reveal three important insights about the implications of public policy for business. First, companies need to think beyond current regulations; the 2020 range is much higher than the price of carbon currently imposed by climate policies in most countries. Second, the average price is expected to increase over time as more-aggressive climate policies are enacted. Third, the range of prices will widen; the longer the time horizon, the greater the uncertainty about the possible impact of policy and technology innovations.

Predicting carbon prices requires navigating and critically reviewing data and analyses from climate experts, research institutions, peer companies, and environmental agencies. Forecasts produced by academics and government analysts are based on assumptions that are difficult for nonexperts to fully gauge. And relying solely on the estimates disclosed by peer companies may lead to groupthink effects and biased forecasts. Companies need to develop in-house expertise or rely on external professionals to identify the likely evolution of public policies and associated carbon prices. Ideally, they should project not only the level of prices but also the timeline of their changes, the extreme values that could be reached, and the probabilities attached to each possible scenario. (See the sidebar “Carbon Price Scenarios and Simulations.”)

**Setting Internal Carbon Prices**

With a sense of the likely trajectory of external carbon prices, companies can set their ICPs. This requires a deep understanding of both carbon economics and company operations and strategy.

One consideration is the time period that an internal carbon price is expected to cover. It is not uncommon for a company to adopt different prices for decisions with different time horizons. For example, when bidding on contracts, Acciona, a Spanish infrastructure developer, varies its internal price as follows: €36 per ton for near-term projects, €45 per ton for projects that extend through 2030, and €72 per ton for those that will continue through 2050.

In making short- to medium-term decisions, it’s probably adequate to set ICPs in line with current carbon prices. That’s what Alphabet did in 2016, when it reported to the CDP an internal carbon price of $14 per ton of CO2—a price aligned with the market value of the allowances traded that year in California’s cap-and-trade system. When making business decisions with a long-term impact, such as those that affect a firm’s business model, applying an internal price that reflects future scenarios makes more sense. ExxonMobil is highly exposed to enduring carbon risk domestically and internationally; it therefore uses a high ICP of $80 per ton—more than five times Alphabet’s and closer to the long-term social cost of carbon used by the EPA, the U.S. Department of Energy, and the U.S. Department of Transportation in many of their regulatory impact analyses over the past decade.
Some companies have established specific emissions or carbon-intensity targets. Carefully considered ICPs can help them meet those targets. In most cases these ICPs are framed as “shadow prices,” meaning that the carbon price is included in the evaluation of investment options, just as other costs are. This price, rather than representing actual outlays today, may reflect the costs the firm expects to be imposed on carbon emissions as public policy and regulations evolve over the lifetime of the investment. Suppose a firm is choosing among energy sources for a new power plant. Fossil-based energy may be the cheapest option given current regulations, but when a carbon price reflecting likely future climate policies is taken into account, a renewable power source may be more financially attractive. Similarly, shadow pricing may reveal hidden costs related to an investment. ConocoPhillips reported that after factoring in shadow pricing, it abandoned an investment project that otherwise looked financially worthwhile.

Sometimes internal carbon prices are not just hypothetical costs; as we saw with Swiss Re, they can be used to set and then levy an actual fee on business units for their emissions. The goal is to encourage a shift to low-carbon investments and behaviors, so the ICP must be set high enough to drive the desired change. Companies using this model charge each business unit an amount proportional to the emissions associated with its energy consumption. The fees generated can then be used either to reward the units with the best emissions-reduction performance or to make further investments to green the company. In 2012 Microsoft implemented an internal carbon-pricing system that holds business units accountable for their scope 1, 2, and 3 emissions. The collected fees—ranging from $5 to $10 per ton—are pooled in a central company fund that invests in internal efficiency projects, green energy, and carbon offset programs. Overall, Microsoft has reported more than $10 million in energy cost savings each year and emissions reductions of nearly 10 million tons since 2012.

A final consideration in setting internal carbon prices is an organization's incentives for executives to deliver on carbon-reduction initiatives. If the company has ambitious targets and compensates its managers accordingly against those targets, higher ICPs can be instrumental in achieving objectives.

Carbon Price Scenarios and Simulations

An essential part of setting an internal carbon price is anticipating not only the most likely level of external prices but also the consequences of possible extreme prices. When evaluating carbon risk, managers and investors should consider enhancing their valuation approaches by using models based on scenarios and simulations.

The standard valuation approach is to estimate future cash flows that reflect the cost impact of the most likely future price of carbon. Scenarios allow more-effective valuations than this standard method does. Scenario-based valuation requires at least two but often three scenarios: a best case, a most likely one, and a worst case. The future cash flows under all the scenarios are then estimated, and the various valuation outcomes can be considered as measures of the “value at risk,” showing how the investment value will change if extreme carbon prices are hit.

Consider this example: A company evaluates three scenarios. The project value is $100 million under the most likely scenario (a carbon price of $15 per ton), $120 million under the optimistic scenario ($10 per ton), and $40 million under the pessimistic scenario ($25 per ton). That’s quite a range: The project could be worth 20% more than the likely value of $100 million, or it could be worth 60% less. But we can better judge the upside potential and the downside risk of the investment by weighting each scenario with the probability that it will occur. In this case, assuming that the most likely scenario has a 50% probability and the other two scenarios each have a 25% probability, we can conclude that the expected value of the project is $90 million ($100 million × 0.5) + ($120 million × 0.25) + ($40 million × 0.25)). This scenario-based valuation is clearly more informative than one based on a single ICP.

Expanding on this approach, simulation-based valuations focus on the full probability distributions of key variables affecting future cash flows, in lieu of a small set of possible scenarios. Representing the uncertainty over future carbon prices with a probability distribution, company analysts can deliver project valuations that reflect all possible states of the world. This approach is mathematically complex, but it can be easily handled by common software packages such as Oracle Crystal Ball.
Applying the Price

LE T’S LOOK MORE closely at how companies factor internal carbon prices into their decisions about new investments, risk management, and long-term strategy.

New investments. When evaluating investments, a firm can assess the carbon footprint of each option and use its internal carbon price to estimate the potential carbon costs. For example, when deciding how to source energy for a new plant, an ICP can be applied to estimate the carbon costs of fossil-based electricity versus renewable sources. The product of the internal carbon price and the expected carbon footprint becomes a financial cost included in the net present valuation of the project.

The use of an internal carbon price enhances the quality of the financial valuation by allowing a more informed decision about production costs such as energy, machines, and materials, assigning them an implicit price that is more likely to increase than decrease over time. Beginning in 2016, Michelin set an internal carbon price of €50 per ton. Multiplying this price by a project’s expected carbon footprint over its lifetime allows the company to estimate the project’s carbon cost and return on investment. In this way, Michelin’s executives consider the implied cost of carbon—even for markets where there is currently no regulated carbon price—as they make decisions about production capacity increases, boiler upgrades, and logistics. Michelin intentionally set an ICP higher than the carbon price imposed in Europe and China, with the objective of getting its operations climate-ready both in countries with no climate regulations and in those where existing rules are likely to become more stringent.

Risk management. Climate policies are changing fast, and the regulated prices of carbon can move abruptly. Internal carbon prices are useful for gauging the impact of regulatory changes and assessing exposure to carbon risk throughout the supply chain, beyond the operations directly controlled by the company. Managing carbon risk is similar to managing other financial risks (such as currency and interest rate fluctuations) and compliance risks.

In jurisdictions that have cap-and-trade systems, power plants and factories must pay for allowances that grant them the right to emit carbon. Higher carbon prices make it more expensive for utilities to burn fossil fuels, thus encouraging a shift to cleaner sources of power. Utilities are hedging their exposure to rising carbon prices through energy investment decisions and carbon-allowance transactions, including the purchase and banking of allowances for use in the future, when allowance prices are expected to be higher. Internal carbon prices provide guidance for the hedging strategies of many utilities.

ICPs are also instrumental in managing regulatory compliance. Teck Resources, a Canadian metals and mining company, systematically conducts analyses to better understand firm exposure and risks under various carbon-pricing and regulatory scenarios. For example, in evaluating the exposure of its operations in British Columbia, it uses a variety of scenarios that assume ICPs ranging from $30 per ton (matching the provincial government’s current tax) to $50 per ton (the planned tax for 2021). Such scenarios have allowed the company to estimate potential carbon costs in 2022 that will range from $45 million to $80 million—valuable information that informs Teck Resources’ financial planning. Importantly, carbon risk management should not be limited to firms’
operations; internal carbon pricing can allow firms to reduce carbon risk up and down their supply chains by helping them benchmark suppliers and design carbon-reducing collaborations with them.

**Strategy.** Internal carbon pricing can inform long-term strategy that accelerates emissions reduction and helps companies find new markets and revenue opportunities. The Swedish packaging and processing company Tetra Pak, for example, has used its ICP in new-product development. Tetra Pak sets its ICP dynamically using the EU Emissions Trading System price as a reference point, with a floor price of €10 per ton. Such pricing helped the company gauge the potential financial impact of incorporating recycled and renewable materials into caps, cartons, and other packaging products, and it supported the introduction of more renewables into the company’s supply chain. It has also helped Tetra Pak launch innovative new packaging that uses less aluminum, which is energy-intensive to produce. Goldman Sachs has adopted an internal carbon price to help it achieve carbon neutrality in its operations. More broadly, its sophisticated understanding of carbon economics and scenario planning has allowed it to become the major financier for clean-energy companies globally and a leading underwriter for new products such as green bonds.

**Assessing Results and Engaging Stakeholders**

The integration of carbon prices into operations and strategic decisions should be regularly reassessed and the results fed back into the process to set updated prices. For example, if the ICP isn’t driving enough emissions reduction by the business units, or if the firm operates in a jurisdiction where the carbon price is higher than the firm’s ICP, it might make sense to raise the internal price.

Getting the business carbon-ready requires real commitment and a cultural transformation that should start with the board and top management. Leadership must communicate the firm’s emissions targets and strategies to all employees and consider monetary incentives for delivering on the targets. Companies should share the objectives of their ICP programs with partners along the supply chain and work with suppliers and customers to reduce their carbon risk. This will help optimize the ICP and enhance collaboration with all stakeholders—including customers, supply chain partners, local communities where green funds are directed, and, crucially, investors.

Investors have become increasingly eager to understand how firms manage the risks and opportunities under climate-change policies. For example, BlackRock, the world’s largest asset manager, recently announced plans to press companies to disclose how climate change could affect their business. And in 2017, more than 60% of ExxonMobil’s shareholders approved a resolution calling for greater disclosure of the financial risks posed by long-term climate-change policy.

Scenario-planning techniques, coupled with rigorous analysis of climate-policy risks, can provide executives with a broad view of how their business might evolve under various carbon-pricing regimes. Developing these sophisticated capabilities can help managers engage more effectively with regulators and policy makers.

**Getting on Board**

Many companies don’t yet price carbon. Some may be fairly carbon-lean and thus don’t expect emerging carbon policies to have a significant impact on their cash flows. This is often a false assumption. Companies with negligible scope 1 emissions may still be high polluters when scope 2 and 3 emissions are considered. Other firms aren’t pricing carbon because they lack the capabilities needed to anticipate and evaluate potential regulations and policies, and they don’t fully realize how exposed they are to carbon risk.

However, the rapid adoption of internal carbon pricing shows that companies increasingly recognize its importance to competitive operations and strategy. Only firms that understand and proactively manage carbon risk will sustain long-term advantage as more and more countries move to decarbonize their economies.

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HOW TO SURVIVE A RECESSION & Thrive AFTERWARD

A Research Roundup
In early 2000, a five-year-old online bookseller called Amazon.com sold $672 million in convertible bonds to shore up its financial position. One month later, the dot-com bubble burst. More than half of all digital start-ups went out of business over the next few years—including lots of Amazon’s then-rivals in e-commerce. Had the bubble burst just a few weeks earlier, one of the most successful companies ever might have fallen victim to that recession.

Recessions—defined as two consecutive quarters of negative economic growth—can be caused by economic shocks (such as a spike in oil prices), financial panics (like the one that preceded the Great Recession), rapid changes in economic expectations (the so-called “animal spirits” described by John Maynard Keynes; this is what caused the dot-com bubble to burst), or some combination of the three. Most firms suffer during a recession, primarily because demand (and revenue) falls and uncertainty about the future increases. But research shows that there are ways to mitigate the damage.

In their 2010 HBR article “Roaring Out of Recession,” Ranjay Gulati, Nitin Nohria, and Franz Wohlgezogen found that during the recessions of 1980, 1990, and 2000, 17% of the 4,700 public companies they studied fared particularly badly: They went bankrupt, went private, or were acquired. But just as striking, 9% of the companies didn’t simply recover in the three years after a recession—they flourished, outperforming competitors by at least 10% in sales and profits growth. A more recent analysis by Bain using data from the Great Recession reinforced that finding. The top 10% of companies in Bain’s analysis saw their earnings climb steadily throughout the period and continue to rise afterward. A third study, by McKinsey, found similar results.

The difference maker was preparation. Among the companies that stagnated in the aftermath of the Great Recession, “few made contingency plans or thought through alternative scenarios,” according to the Bain report. “When the downturn hit, they switched to survival mode, making deep cuts and reacting defensively.” Many of the companies
that merely limp through a recession are slower to recover and never really catch up.

How should a company prepare in advance of a recession and what moves should it make when one hits? Research and case studies examining the Great Recession shed light on those questions. In some cases, they cement conventional wisdom; in others, they challenge it. Some of the most interesting findings deal with four areas: debt, decision making, workforce management, and digital transformation. The underlying message across all areas is that recessions are a high-pressure exercise in change management, and to navigate one successfully, a company needs to be flexible and ready to adjust.

DELEVERAGE BEFORE A DOWNTURN

Rebecca Henderson (of Harvard Business School) likes to remind her students, “Rule one is: Don’t crash the company.” That means, first and foremost, don’t run out of money. Because a recession usually brings lower sales and therefore less cash to fund operations, surviving a downturn requires deft financial management. If Amazon hadn’t raised all that money prior to the dot-com bust, its options would have been much more limited. Instead, it was able to absorb losses in its investments in other start-ups and also launch Amazon Marketplace, its platform for third-party sellers, later that year. It further expanded during and after the recession into new segments (kitchens, travel, and apparel) and markets (Canada).

Companies with high levels of debt are especially vulnerable during a recession, studies show. In a 2017 study, Xavier Giroud (of MIT’s Sloan School of Management) and Holger Mueller (of NYU’s Stern School of Business) looked at the relationship between business closures and associated unemployment and falling housing prices in various U.S. counties. Overall, the more housing prices declined, the more consumer demand fell, driving increased business closures and higher unemployment. But the researchers found that this effect was most pronounced among companies with the highest levels of debt. They divided up companies on the basis of whether they became more or less leveraged in the run-up to the recession, as measured by the change in their debt-to-assets ratio. The vast majority of businesses that shuttered because of falling demand were highly leveraged.

“The more debt you have, the more cash you need to make your interest and principal payment,” Mueller explains. When a recession hits and less cash is coming in the door, “it puts you at risk of defaulting.” To keep up with payments, companies with more debt are forced to cut costs more aggressively, often through layoffs. These deep cuts can impair their productivity and ability to fund new investments. Leverage effectively limits companies’ options, forcing their hand and leaving them little room to act opportunistically.

The extent to which high levels of debt pose a risk during a recession depends on various factors. Shai Bernstein (of the Stanford Graduate School of Business), Josh Lerner (of Harvard Business School), and Filippo Mezzanotti (of Northwestern University’s Kellogg School of Management) have found that companies owned by private equity firms—which often require the companies they finance to take on debt—fared better during the Great Recession than similarly leveraged non-PE-owned firms. Companies with lots of debt struggle in part because access to capital slows to a trickle during a downturn. PE-backed firms emerged in better shape, the study suggests, because their owners were able to help them raise capital when they needed it. Issuing equity is another way companies can avoid the burden of debt obligations. “If you issue equity in the run-up to a recession,” Mueller says, “the problem of defaulting will be less pronounced.”

The reality, of course, is that many companies have some level of debt going into a recession. Mueller’s study found that the average debt-to-assets ratio among firms that had increased debt levels in the run-up to the Great Recession was 38.3%. Among the group that had deleveraged, it was 19.5%. Although there’s no magic number, modest levels of debt aren’t necessarily a problem, research shows. Nonetheless, Mueller suggests that if a company thinks a recession is coming, it should consider deleveraging. McKinsey’s recent recession research supports this: Firms that emerged in better shape from the Great Recession had reduced their leverage more dramatically from 2007 to 2011 than had less successful ones.
When it comes to deleveraging, it helps to start early, says McKinsey’s Mihir Mysore. That means reducing debt levels before it’s clear the economy is in recession. “You need to take a hard look at your portfolio,” Mysore advises, because shedding assets can be a way to reduce leverage without necessarily cutting core aspects of operations.

FOCUS ON DECISION MAKING
A company’s performance during and after a recession depends not just on the decisions it makes but also on who makes them. In a 2017 study, Raffaella Sadun (of Harvard Business School), Philippe Aghion (of Collège de France), Nicholas Bloom and Brian Lucking (of Stanford), and John Van Reenen (of MIT) examined how organizational structure affects a company’s ability to navigate downturns. On the one hand, “the need to make tough decisions may favor centralized firms,” the researchers write, because they have a better picture of the organization as a whole and their incentives are typically more closely aligned with company performance. On the other hand, decentralized firms may be better positioned to weather macro shocks “because the value of local information increases.”

The researchers relied on data from the World Management Survey of manufacturers, which includes questions on how much autonomy a plant manager has to make investments, introduce new products, make sales and marketing decisions, and hire employees. Companies in which plant managers had little discretion were considered highly centralized; those in which they had a lot of discretion were scored as less so. The researchers also examined results from a similar survey run by the U.S. Census and matched them with company reports of sales, employment levels, profits, and other performance measures. And they gathered data on which industries were hardest hit by the Great Recession. “Decentralization was associated with relatively better performance for firms or establishments facing the toughest environment during the crisis,” the researchers report. They also found that the benefits of decentralization faded as economic conditions improved—a sign that delegation has particular value during uncertain times.

Why did decentralization help? “The recession introduced a lot of uncertainty and turbulence,” says Sadun. Because decentralized firms delegated decision making further down the hierarchy, they were better able to adapt to changing conditions. For example, they were more aggressive in adjusting their product offerings in response to changes in demand. “One [piece of] advice would be [to] really think carefully about your organizational structure because that’s one way you cope with uncertainty,” says Sadun.

Of course, organizational structure isn’t easy to adjust quickly in preparation for a recession, but that doesn’t mean companies can’t learn from these findings. “What decentralization does,” says Sadun, “is match decisions with expertise.” She says companies can fall into the trap of hoarding decision rights during a downturn. But the uncertainty of a recession necessitates experimentation, which requires that decisions be made throughout the organization. Even if companies decide not to decentralize, they can try to do a better job of gathering input from employees at all levels when making key decisions. “Recessions offer opportunities for change,” notes Sadun.

LOOK BEYOND LAYOFFS
Some layoffs are inevitable in a downturn; during the Great Recession, 2.1 million Americans were laid off in 2009 alone. However, the companies that emerged from the crisis in the strongest shape relied less on layoffs to cut costs and leaned more on operational improvements, Ranjay Gulati and his colleagues found in their study of public companies.

That’s because layoffs aren’t just harmful to workers; they’re costly for companies, too. Hiring and training are expensive, so companies prefer not to have to rehire when the economy picks back up, particularly if they think the downturn will be brief. Layoffs can also hurt morale, dampening productivity at a time when companies can ill afford it.

Fortunately, layoffs aren’t the only way to cut labor costs. Companies should consider hour reductions, furloughs, and performance pay. After the stock market crash in 2000, Honeywell laid off nearly 20% of its workforce and then struggled to recover in the downturn that followed. So when the Great Recession hit, in 2008, the company took a different approach, as Sandra J. Sucher and Shalene Gupta describe in their 2018 HBR article, “Layoffs That Don’t Break
Your Company.” “Honeywell furloughed employees for one to five weeks, providing unpaid or partially compensated leaves, depending on local labor regulations,” Sucher and Gupta wrote. That saved an estimated 20,000 jobs. Honeywell emerged from the Great Recession in better shape than it did the 2000 recession in terms of sales, net income, and cash flow, despite the fact that the 2008 downturn was much more severe.

In some parts of the world, policy makers encourage shorter hours as an alternative to layoffs. Many countries and more than half the states in the U.S. have some sort of “short-time” compensation program, whereby workers whose hours are reduced receive partial unemployment compensation. In France, 4% of workers and 1% of firms took advantage of short-time work programs in 2009, and the program paid off for both workers and companies. In a 2018 discussion paper for the European think tank Centre for Economic Policy Research, Pierre Cahuc, Francis Kramarz, and Sandra Nevoux found that companies that took advantage of the short-time work program laid off fewer workers and were more likely to survive during the Great Recession. The effect was most significant among the companies most severely hit by the recession and those with the highest levels of debt. According to the researchers, the short-time work approach allowed vulnerable companies to hold on to more of their workforce. Absent the subsidies, they most likely would have had to lay off more employees, making it more difficult to recover after the recession or causing them to go out of business altogether. The researchers estimate that for every five workers on short-time work, one job was saved. And they estimate that the cost per job saved was less than that of comparable programs; since the alternative was paying unemployment, the program actually saved the French government money.

Companies invest in technology during recessions because their opportunity cost is lower than it would be in good times.

One appealing thing about both furloughs and short-time work is that, as with layoffs, companies have discretion over which workers are affected. By contrast, across-the-board pay cuts or hiring freezes that fail to consider employee productivity can backfire, damaging morale and driving away the most productive employees. Similarly, hiring freezes affect every department indiscriminately, without weighing the value of various potential hires.

Performance pay—compensation based on some measure of productivity or business outcome—is another way to control labor costs without hurting productivity. There is a long-running debate about performance pay, for executives and frontline workers, and plenty of evidence for and against the management tool on both sides. But a recent study by Christos Makridis (of the White House Council of Economic Advisers) and Maury Gittleman (of the U.S. Bureau of Labor Statistics) documents an important fact. Using responses to the National Compensation Survey from 2004 to 2014, the study shows that U.S. companies rely on performance pay more frequently during economic downturns. Although they can’t say whether this strategy works out for companies, they show that a given job is more likely to come with performance pay when times are tough. They hypothesize that this is because performance pay makes companies more flexible by aligning workers’ incentives with changing conditions.

INVEST IN TECHNOLOGY

It’s tempting to think of a recession as a time to batten down the hatches and play it safe. However, downturns actually appear to encourage the adoption of new technologies. In a 2018 paper, Brad Hershbein (of the Upjohn Institute for Employment Research) and Lisa B. Kahn (of the University of Rochester) compared more than 100 million online job listings posted from 2007 to 2015 with economic data to see how the Great Recession affected the types of skills employers were looking for. They found that the U.S. cities hardest hit by the recession saw a greater demand for higher-order skills—including computer-related skills. The boost in demand was partly due to employers’ taking advantage of high unemployment to be choosier, as suggested by Alicia Sasser Modestino (of Northeastern), Daniel Shoag (of Harvard Kennedy School and Case Western Reserve), and Joshua Ballance (of the New England Public Policy Center). Their study found that the demand for tech skills returns to more normal levels once the labor market improves.

But companies weren’t only being choosier, Hershbein and Kahn found; they were becoming more digital, too. In those hard-hit areas of the United States, companies also increased their investment in information technology,
driving the surge in IT skill requirements in their job postings.

Why do companies invest in technology during a recession when money is tight? Economists theorize that it’s because their opportunity cost is lower than it would be in good times. When the economy is in great shape, a company has every incentive to produce as much as it can; if it diverts resources to invest in new technologies, it may be leaving money on the table. But when fewer people are willing to buy what you’re selling, operations need not be kept humming at maximum capacity, which frees up operating budget to fund IT initiatives without dampening sales. For that reason, adopting technology costs less, in a sense, during a recession.

That’s fine in theory, but other reasons may make more practical sense to managers. Technology can make your business more transparent, more flexible, and more efficient. According to Katy George, a senior partner at McKinsey, the first reason to prioritize digital transformation ahead of or during a downturn is that improved analytics can help management better understand the business, how the recession is affecting it, and where there’s potential for operational improvements.

The second reason is that digital technology can help cut costs. Companies should prioritize “self-funding” transformation projects that pay off quickly, George says, such as automating tasks or adopting data-driven decision making. The third reason is that IT investments make companies more agile and therefore better able to handle the uncertainty and rapid change that come with a recession. In manufacturing, “we are finally seeing uptake now in the adoption of digital and advanced analytics,” she says. It used to be that a manufacturer could be the cheapest in the market or could stay nimble—but not both.

Flexibility came with serious costs. However, digital technologies “create much more flexibility around product changes, volume changes, etc., as well as around movement of your supply chain around the world.”

That, in George’s view, is one way the next recession might be different from past ones. Companies that have already made an investment in digital technology, analytics, and agile business practices may be better able to understand the threat they face and respond more quickly. As we’ve seen, recessions can create wide and long-standing performance gaps between companies. Research has found that digital technology can do the same. Companies that have neglected digital transformation may find that the next recession makes those gaps insurmountable.

WALTER FRICK is the deputy editor of HBR.org.
Shareholders are getting serious about sustainability.

The Investor Revolution

Shareholders are getting serious about sustainability.
Most corporate leaders understand that businesses have a key role to play in tackling urgent challenges such as climate change.

But many of them also believe that pursuing a sustainability agenda runs counter to the wishes of their shareholders. Sure, some heads of large investment firms say they care about sustainability, but in practice, investors, portfolio managers, and sell-side analysts rarely engage corporate executives on environmental, social, and governance (ESG) issues. The impression among business leaders is that ESG just hasn’t gone mainstream in the investment community.

That perception is outdated. We recently interviewed 70 senior executives at 43 global institutional investing firms, including the world’s three biggest asset managers (BlackRock, Vanguard, and State Street) and giant asset owners such as the California Public Employees’ Retirement System (CalPERS), the California State Teachers’ Retirement System (CalSTRS), and the government pension funds of Japan, Sweden, and the Netherlands. We know of no other research effort that involved so many senior leaders at so many of the largest investment firms. We found that ESG was almost universally top of mind for these executives.

“ESG issues have become much more important for us as long-term investors,”
portfolio theory—which holds that investors can limit volatility and maximize returns in a portfolio by combining investments from asset classes with varying levels of risk—cannot be used to mitigate system-level risks. A small investment firm might be able to hedge against climate change and other system-level risks by investing in “doom” stocks, such as gold, or in shares of companies that build survival shelters, for example. But firms that have trillions of dollars under management have no hedge against the global economy; in short, they have become too big to let the planet fail. What’s more, large asset owners such as pension funds are forced to take a long-term view because sustainable investing is about materiality. A company that spends vast sums of money trying to address every conceivable environmental, social, and governance (ESG) issue will likely see its financial performance suffer; however, companies that focus on material issues tend to outperform those that don’t.

Materiality varies by industry. The Sustainability Accounting Standards Board (SASB) has identified the material ESG issues for all 77 industries in its classification system. For example, material issues for companies in food retail and distribution include greenhouse gas emissions, energy management, access and affordability, fair labor practices, and fair marketing and advertising. For internet and media services the list includes energy management, water and wastewater management, data security and customer privacy, diversity and inclusion, and competitive behavior. A study by Mozaffar Khan, George Serafeim, and Aaron Yoon provides empirical evidence that good performance on material issues contributes to higher financial returns. Most tellingly, the researchers found that whereas firms with good ratings on material sustainability issues significantly outperform firms with poor ratings on those issues, firms with good ratings on immaterial issues do no better than firms with poor ratings on those issues.

Mainstream investors now look for evidence that their portfolio companies are focused on the material ESG issues that matter to financial performance, rather than on some ill-defined commitment to “sustainability.”

Cyrus Taraporevala, president and CEO of State Street Global Advisors, told us, expressing a view echoed in many of our interviews. “We seek to analyze material issues such as climate risk, board quality, or cybersecurity in terms of how they impact financial value in a positive or a negative way. That’s the integrative approach we are increasingly taking for all of our investments.”

The numbers back up the view that the capital markets are in the midst of a sea change. In 2006, when the UN-backed Principles for Responsible Investment (PRI) was launched, 63 investment companies (asset owners, asset managers, and service providers) with $6.5 trillion in assets under management (AUM) signed a commitment to incorporate ESG issues into their investment decisions. By April 2018, the number of signatories had grown to 1,715 and represented $81.7 trillion in AUM. According to a 2018 global survey by FTSE Russell, more than half of global asset owners are currently implementing or evaluating ESG considerations in their investment strategy.

Yet many corporate managers seem to be unaware of this new reality. In a recent survey by Bank of America Merrill Lynch, U.S. executives underestimated the percentage of their company’s shares held by firms employing sustainable investing strategies. The average estimate was 5%; the actual percentage is more like 25%.

The first step corporate leaders can take to prepare for this shift in focus is to recognize the forces driving it. Once they understand why investors now care so much about ESG issues, they can make changes within their organizations to maximize long-term value for shareholders.

**What’s Driving the Change**

Over the past five years or so, investors have become increasingly interested in ESG issues. Six factors are acting as tailwinds for this heightened focus.

**The Size of Investment Firms.** The investment industry is highly concentrated. The top five asset managers hold 22.7% of externally managed assets, and the top 10 hold 34%. Large investment firms are now so big that modern portfolio theory—which holds that investors can limit volatility and maximize returns in a portfolio by combining investments from asset classes with varying levels of risk—cannot be used to mitigate system-level risks. A small investment firm might be able to hedge against climate change and other system-level risks by investing in “doom” stocks, such as gold, or in shares of companies that build survival shelters, for example. But firms that have trillions of dollars under management have no hedge against the global economy; in short, they have become too big to let the planet fail. What’s more, large asset owners such as pension funds are forced to take a long-term view because
they have long-term liabilities—they must plan to pay out retirements for the next 100 years. As Hiro Mizuno, the chief investment officer of Japan’s $1.6 trillion Government Pension Investment Fund, noted, “We are a classic universal owner with intergenerational responsibilities and thus have an inherently long-term view.”

**FINANCIAL RETURNS.** Many corporate managers still equate sustainable investing with its predecessor, socially responsible investing (SRI), and believe that adhering to its principles entails sacrificing some financial return in order to make the world a better place. That view is outdated. A study by Harvard Business School’s George Serafeim and colleagues (which included one of us, Eccles) found that companies that developed organizational processes to measure, manage, and communicate performance on ESG issues in the early 1990s outperformed a carefully matched control group over the next 18 years. In a different study, Serafeim and his colleagues demonstrated the positive relationship between high performance on relevant ESG issues and superior financial performance. Evidence from investors corroborates that: A 2017 study by Nordea Equity Research (the largest financial services group in the Nordic region) reported that from 2012 to 2015, the companies with the highest ESG ratings outperformed the lowest-rated firms by as much as 40%. In 2018, Bank of America Merrill Lynch found that firms with a better ESG record than their peers produced higher three-year returns, were more likely to become high-quality stocks, were less likely to have large price declines, and were less likely to go bankrupt. Also in 2018, Amundi Asset Management found that the relative importance of ESG factors varies by region. For European portfolios, governance is particularly important for determining outperformance. For North American portfolios, environmental factors are the most significant.

The key to the new generation of sustainable investing is that it focuses only on “material” ESG issues that impact a firm’s valuation—for example, greenhouse gas emissions are material for an electric utility company but not for a financial services firm; supply chain management is material for an apparel company using low-cost workers in developing countries but not for a pharmaceutical company. (See the sidebar “Materiality Matters.”)

**GROWING DEMAND.** Asset owners such as pension funds are increasingly demanding sustainable investing strategies from their asset managers. Mary Jane McQuillen, portfolio manager and head of the ESG investment program at ClearBridge Investments (an active manager with $145 billion in AUM), says that in recent years her firm has seen a marked increase in the number of new inquiries mentioning ESG. What’s driving this growing demand? Not only are sophisticated asset owners aware that sustainable investing improves returns, but many of them, including high-net-worth individuals, are also focused on the nonfinancial outcomes. “Our wealthiest clients want to know their investments are making a difference to make the world a better place,” noted Rina Kupferschmid-Rojas, head of sustainable finance at UBS Group, which has the largest wealth-management business in the world, at $2.4 trillion. The demand for ESG investment options is so high that many asset management firms are rushing to pull together new offerings. Sustainable and impact investment at UBS Asset Management has more than tripled since December 2016, with $17 billion in AUM. “We have seen very strong asset growth in our Sustainable and Impact offering,” said Michael Baldinger, the unit’s head, “and client demand has simply accelerated over the past 24 months.”

Asset owners no longer have to be convinced that sustainable investing is important. “We used to have to put a lot of effort into explaining to our colleagues in the broad investment community why ESG is important,” noted Eva Halvarsson, the CEO of Swedish pension fund AP2. “Now the focus is on how we can most effectively capture value from ESG integration.”

**AN EVOLVING VIEW OF FIDUCIARY DUTY.** A corollary to the mistaken belief that sustainable investing means sacrificing some financial return is the belief that fiduciary duty means focusing only on returns—thereby ignoring ESG factors that can affect them, particularly over time. However, more recent legal opinions and regulatory guidelines make it clear that it is a violation of fiduciary duty not to consider such factors. Although adoption of this new understanding has been slow in the United States, other countries, such as Canada, the UK, and Sweden, are taking steps to redefine the fiduciary duty concept. On November 28, 2018, the Swedish
parliament approved major reforms requiring the four main national pension funds to become “exemplary” in the field of sustainable investment. As Will Martindale, head of policy at PRI, bluntly put it to shareholders, “Failing to integrate ESG issues is a failure of fiduciary duty.”

**TRICKLE-DOWN WITHIN INVESTMENT FIRMS.** It is one thing for the CEO or chief investment officer of a major investment firm to espouse sustainable investing and quite another for it to be practiced by the analysts and portfolio managers who make the day-to-day investment decisions. Historically, the ESG group at investment firms was separate from portfolio managers and sector analysts (on both the buy side and the sell side) in much the same way that corporate social responsibility groups were historically separate from business units. Now senior leaders are making sure that ESG analysis is being integrated into the fundamental financial activities carried out by analysts and portfolio managers. The big Dutch pension fund ABP, for example, has a program for full ESG integration across all asset classes. “Responsible investment is central to our investment philosophy,” said Claudia Kruse, the managing director of global responsible investment and governance for APG (ABP’s asset manager). “Portfolio managers are accountable for assessing every investment in the context of risk, return, costs, and ESG. This has been an internal cultural evolution.”

This shift will change the way investors engage with companies—and the way corporate executives view sustainability. The two key conversations—an investment team talking to a company’s CEO and CFO, and the investor’s ESG team members talking to their corporate counterparts—will be fused into one hardheaded conversation about material ESG issues. When it becomes clear that the people who decide whether to buy or sell a company’s stock have internalized ESG into their calculations, the business leaders will be forced to do the same within their companies.

The integration of ESG into financial analysis at BlackRock, the world’s largest asset manager, with $6.1 trillion under management, is illustrative. The firm’s CEO, Larry Fink, has promoted the importance of sustainable investing for several years—but full integration of ESG criteria into the firm’s investment strategies has not happened overnight. Tariq Fancy, the chief investment officer of sustainable investing at BlackRock, equates integrating ESG considerations into traditional financial analysis to an exercise in behavior change. “Some investors are naturally
inclined to do it. Others, depending on their asset class, geography, and investment style, take more time to see the investment value,” he says. Fancy’s background is as an investor—not someone from an environmental or social NGO—which gives him credibility in dealing with the investment teams. Given the size of BlackRock, changing investor behavior across the organization will require time and hard work. “But if we can do it at BlackRock, we can do it across capitalism,” he says.

Making the job of Fancy and other chief investment officers easier is the fact that the workforce is increasingly made up of Millennials, for whom ESG is central to any business analysis. Halvarsson told us that 20% of AP2’s employees are Millennials. “They expect us to integrate sustainability as a natural part of our daily work,” she said.

MORE ESG ACTIVISM BY INVESTORS. Shareholder activism is on the rise in financial markets—and ESG is increasingly becoming a focus of these interventions. Historically, equity and fixed-income investors have been hands-off, keeping the stock or bond when they like it and selling it when they don’t or when they think it’s reached its peak value. But active managers who intend to hold a stock for a long time and passive managers who hold a stock forever have an incentive to see that companies address the material ESG issues that will improve their financial performance. One form of active engagement is proxy resolutions and proxy voting, an aspect of the active ownership strategy for sustainable investing. According to the ESG research and advisory firm Institutional Shareholder Services, 476 environmental and social (E&S) shareholder resolutions had been filed in the United States as of August 10, 2018. The share of total resolutions focused on E&S has grown from around 33% in the 2006 to 2010 time period to around 45% from 2011 to 2016. By 2017, it stood at just over 50%. Leading topics for these resolutions include climate change and other environmental issues, human rights, human capital management, and diversity in the workforce and on corporate boards.

Even some activist hedge funds are moving into sustainable investing. For example, JANA Partners has launched its JANA Impact Capital Fund (JIC) and partnered with CalSTRS to encourage Apple to address the overuse of its iPhones by children and teenagers. (Disclosure: One of us, Eccles, is on JIC’s advisory board.) According to Charles Penner, a partner at JANA and the co–portfolio manager at JIC, the pressure has worked. “Apple quickly affirmed its commitment to the safety of its youngest customers the day after we raised our concerns, and it has since released new controls,” he said. Jeff Ubben, the CEO of ValueAct Capital, launched its ValueAct Spring Fund at the start of 2018 and took its first position in the global power company AES. Since Ubben joined the AES board, the company has accelerated its transition from coal to renewable energy sources and has become the first publicly traded U.S. power company to make its climate disclosures in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures. As the company accelerates its carbon reduction goals, it is attracting European and Canadian ESG-oriented investors that had previously avoided it. Ubben told us, “Our goal is for each ValueAct Spring Fund portfolio company to earn a sustainability premium in its stock price for the long-term environmental and social value that is being generated.” Investors that do not have the scale and resources of firms such as BlackRock or the activist orientation of JANA
are partnering with groups such as Hermes Equity Ownership Services (Hermes EOS) to engage companies on ESG issues. As of September 2018, Hermes EOS represented 45 asset owner and asset manager clients, with $468 billion in AUM. In 2017, it worked with 659 companies on 1,704 issues related to the environment, ethics, governance, strategy, risk, and communications, making progress on about one-third of them. “We aren’t just seeking information,” explained Hans-Christoph Hirt, the head of Hermes EOS. “We are trying to change something.”

Another group, Climate Action 100+, which includes more than 320 investors representing $32 trillion in AUM, is lobbying the largest greenhouse gas emitters to address climate change at the board level and set targets to cut emissions. Anne Simpson, head of strategy at CalPERS, described the coalition as “the irresistible force” pressing on the “immovable object” of large emitters that do not want to change. “There has never been a global gathering of so many large institutional investors with such clarity of intent,” she observed.

What’s Holding Back ESG Investing

Despite the forces propelling ESG investing forward, there are still barriers to overcome. The biggest obstacle to investment is that most sustainability reporting by companies is aimed not at investors but at other stakeholders, such as NGOs, and is thus of little use to investors. To be sure, there are data vendors that scour through an assortment of source materials, including whatever reports or data they can get from companies, to provide some assessment of ESG performance. But this is a poor substitute for comprehensive ESG information reported directly by the company.

Several organizations—such as the Climate Disclosure Standards Board, Global Reporting Initiative (GRI), and the Sustainability Accounting Standards Board (or SASB, where one of us, Eccles, was the founding chairman)—are trying to fill this gap. However, no governments are thus far mandating the use of the standards. And even when companies choose to adopt them, the reported numbers are rarely subject to a rigorous audit by a third party.

While the world of ESG data still feels a bit like the Wild West, substantial progress in improving the quality and availability of information is being made through market forces, the efforts of NGOs, and, in some territories, regulation—such as an EU directive requiring all companies of a certain size to report nonfinancial information once a year. “The quality of ESG data is not perfect,” BlackRock’s Fancy said, “but it’s rapidly improving.”

Preparing for the New Era

Our research reveals five actions that companies can take to prepare for the new era of sustainable investing.

Articulate Your Purpose. Larry Fink, who writes an annual letter to CEOs, created quite a stir with his 2018 missive, titled “A Sense of Purpose.” He wrote, “To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society.” He elaborated on this view in his 2019 letter, “Purpose & Profit,” stating that “purpose is not the sole pursuit of profits but the animating force for achieving them.” He further stated that “profits are in no way inconsistent with purpose—in fact, profits and purpose are inextricably linked.” According to Michelle Edkins, BlackRock’s global head of investment stewardship, “Some people think ‘purpose’ means diverting from profitability—but it doesn’t.” As Colin Mayer, a professor at the University of Oxford and an expert on corporate purpose, recently told us in an interview, “The purpose of a company is not just to produce profits, it is to produce solutions to problems of people and planet and in the process to produce profits.”

The easiest way for board members to communicate their company’s place in society is to publish a “Statement of Purpose.” In it, the board articulates the company’s reason for being, identifies the stakeholders most important to its continued prosperity, and lays out the time frames over which senior management’s decisions are evaluated and rewarded. It is essential that this statement come from the board since its role is to represent the intergenerational...
What Is Sustainable Investing?

Sustainable investing encompasses a menu of strategies that can be used in combination. Here are seven common ones:

- **Negative/exclusionary screening** (eliminating companies in industries or countries deemed objectionable)
- **Norms-based screening** (eliminating companies that violate some set of norms, such as the Ten Principles of the UN Global Compact)
- **Positive/best-in-class screening** (selecting companies with especially strong ESG performance)
- **Sustainability-themed investing** (such as in a fund focused on access to clean water or renewable energy)
- **ESG integration** (including ESG factors in fundamental analysis)
- **Active ownership** (engaging deeply with portfolio companies)
- **Impact investing** (looking for companies that make a positive impact on an ESG issue while still earning a market return)

A noteworthy example of sustainable investing is the strategy developed by Mats Andersson (a former CEO of AP4), Patrick Bolton (a professor at Columbia), and Frédéric Samama (a cohead of institutional clients coverage at Amundi Asset Management) that enables long-term passive investors to hedge climate risk without sacrificing returns. The strategy is based on building a portfolio of companies that have a carbon footprint 50% smaller than benchmarks and have 50% less exposure to “stranded assets” (such as fossil fuel assets that have become nonperforming or obsolete as a result of legislation, decreased demand, or other factors). This model, outlined in the Financial Analysts Journal article “Hedging Climate Risk,” has been used by AP4, CalSTRS, the New York State Common Retirement Fund, the New Zealand Superannuation Fund, and many others. Today some $50 billion in assets are being managed using this strategy.

IMPROVE ENGAGEMENT WITH SHAREHOLDERS.

Investors, both active and passive and across asset classes, are seeking deeper levels of engagement with their portfolio companies. As “sustainable investing” becomes synonymous with “investing,” shareholders will want to be able to engage with the C-suite, including the CFO, and directly with the board. The “Statement of Purpose” provides a good foundation, but it should be part of a larger, integrated report for shareholders. As defined by the International Integrated Reporting Council, “an integrated report is a concise communication about how an organization’s strategy, governance, performance, and prospects, in the context of its external environment, lead to the creation of value.” In practice, this means that company reports should include a materiality analysis that identifies the ESG issues that affect financial performance. Such a report is an effective way to demonstrate to shareholders and other stakeholders that the company is practicing “integrated thinking” regarding its role in society. It is a way of changing the orientation from short-term financial results to long-term value creation.

The “Statement of Purpose” and an integrated report provide a good foundation for a company to start communicating its long-term plan. The Strategic Investor Initiative of CECP, a CEO-level coalition, has created a framework for executives to share the long-term strategic plans for their companies, and it hosts CEO Investor Forums in which to do so. Nearly two dozen heads of S&P 500 companies—including chief executives at 3M, Aetna, Becton Dickinson, GlaxoSmithKline, IBM, and Unilever—have presented their plans to institutional investors with some $25 trillion in assets under management.

Finally, companies should take charge of quarterly calls and not let them be driven by short-term sell-side analysts. A good start is to eliminate earnings guidance. Management can then use these calls to explain progress on ESG targets and how the targets are contributing to financial performance. This is already beginning to happen. According to a 2018 report by Goldman Sachs, nearly half of S&P companies addressed ESG topics in 4Q conference calls.

INCREASE INVOLVEMENT BY MIDDLE MANAGEMENT.

As ESG considerations at major investment firms are trickling down from the CEO and CIO level to analysts and portfolio managers, companies need to respond by increasing their own middle management’s involvement in identifying and managing the material ESG issues. After all, middle managers are the ones who commit resources for achieving strategic obligations of the corporation. Hermes EOS has launched an engagement campaign to encourage company boards to publish just such a statement. “Clarity about the corporate purpose is fundamental for board effectiveness,” explained Hermes EOS’s Hirt. “It’s a cornerstone of constructive engagement with investors and other stakeholders.”

In fact, the implementation of this strategy requires a fundamental shift in company orientation, from a focus on short-term financial results to long-term value creation. This new approach provides a way of changing the orientation from middle management’s involvement in identifying and managing the material ESG issues. After all, middle managers are the ones who commit resources for achieving strategic...
objectives. “Real change will happen when business units are focused on what ‘ESG’ means for their own purpose and innovation,” said Jonathan Bailey, the head of ESG investing at Neuberger Berman, an asset manager with $315 billion in AUM. “Investors and the CEO create the space, but it is middle management that will create the products and services that serve both shareholders and society.”

Getting middle management more involved is the responsibility of the board and senior leaders. When appropriate, executives should include middle managers in conversations with investors. Middle managers in business units should also participate in the materiality determination process in which companies identify the ESG issues that impact their business. Top management should evaluate and reward middle managers on both financial and ESG performance, and with a longer-term perspective than quarterly or annually.

**INVEST IN INTERNAL SYSTEMS FOR ESG PERFORMANCE INFORMATION.** Whereas every large company has a sophisticated and robust IT infrastructure for generating financial reports, few firms have reliable systems for measuring ESG performance. Instead, ESG information is typically generated through spreadsheets or various software solutions focused on distinct topics, such as carbon emissions, supply chain, or customer retention. The result is untimely and poor-quality ESG data, which presents challenges not only to investors but to corporate managers themselves. Indeed, one of the main obstacles today for many companies wishing to produce an integrated report is that their ESG information is rarely available at the same time and in a comparable format as financial information. Developing standards for ESG information, as GRI and SASB are doing, will be helpful here. But corporate leaders can also play a vital role in speeding the pace of change in three ways.

First, they can put these standards into practice in their external reporting. Second, companies should challenge the software vendors that provide financial information to extend into ESG metrics. Some of the large software firms are already working on this—and they will work harder and faster if there is clear market demand. Third, businesses should press their audit firms to provide assurance on reported ESG performance, just as they do for financial performance. Yes, there are challenges (such as the need for standards and better and more integrated IT systems) and concerns (increased liabilities, for example) in doing so. But these are surmountable problems that must be solved to accommodate the changing focus of investors.

**IMPROVE MEASUREMENT AND REPORTING.** Some ESG issues don’t affect a company’s bottom line but still impact society at large. A growing segment of the investment community is interested in those impacts—and willing to allocate capital to firms that actively work to benefit society. The challenge for companies wishing to attract these investors is that there is currently no agreed-upon way of measuring a firm’s “externalities”—the positive and negative effects of its products and services on society. As just one example of the challenge, consider geographical location. A windmill replacing coal in China has a greater positive impact than adding a similar windmill in Norway, where nearly all of the energy comes from hydropower.

The Impact Management Project is a network of organizations working to harmonize impact measurement and reporting initiatives. CEO Clara Barby calls it a “big tent” of people and organizations committed to creating standards that will be useful to companies and investors. Companies, like investors, are on the frontier of this effort and will be learning together. A good framework for thinking about impact is the United Nations Sustainable Development Goals (SDGs)—the 17 goals that the UN identified as necessary for a sustainable future, including eradicating poverty and hunger, ensuring responsible production and consumption, and promoting gender equality. A 2016 PwC study of sustainability reporting by 470 companies in 17 countries found that 62% mentioned the SDGs, although only 28% provided quantitative targets linked to societal impact.

**A SEA CHANGE** in the way investors evaluate companies is under way. Its exact timing can’t be predicted, but it is inevitable. Large corporations whose shares are owned by the big passive asset managers and pension funds will feel the change the soonest. But it won’t be long before mid-cap companies come under this new scrutiny as well. All companies, though, should seize the opportunity to partner with investors willing to reward them for creating long-term value for society as a whole.

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Your Workforce Is More Adaptable Than You Think

Employees are eager to embrace retraining—and companies need to seize this as a competitive opportunity.

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**ILLUSTRATOR** FRANCESCO BONGIORNI
“The majority of people in disappearing jobs do not realize what is coming,” the head of strategy at a top German bank recently told us. “My call center workers are neither able nor willing to change.”

This kind of thinking is common, but it’s wrong, as we learned after surveying thousands of employees around the world. In 2018, in an attempt to understand the various forces shaping the nature of work, Harvard Business School’s Project on Managing the Future of Work and the Boston Consulting Group’s Henderson Institute came together to conduct a survey spanning 11 countries—Brazil, China, France, Germany, India, Indonesia, Japan, Spain, Sweden, the United Kingdom, and the United States—gathering responses from 1,000 workers in each. In it we focused solely on the people most vulnerable to changing dynamics: lower-income and middle-skills workers. The majority of them were earning less than the average household income in their countries, and all of them had no more than two years of post secondary education. In each of eight countries—Brazil, China, France, Germany, India, Japan, the United Kingdom, and the United States—we then surveyed at least 800 business leaders (whose companies differed from those of the workers we surveyed). In total we gathered responses from 11,000 workers and 6,500 business leaders.

What we learned was fascinating: The two groups perceived the future in significantly different ways. Given the complexity of the changes that companies are confronting today and the speed with which they need to make decisions,
this gap in perceptions has serious and far-reaching consequences for managers and employees alike.

Predictably, business leaders feel anxious as they struggle to marshal and mobilize the workforce of tomorrow. In a climate of perpetual disruption, how can they find and hire employees who have the skills their companies need? And what should they do with people whose skills have become obsolete? The CEO of one multinational company told us he was so tormented by that last question that he had to seek counsel from his priest.

The workers, however, didn’t share that sense of anxiety. Instead, they focused more on the opportunities and benefits that the future holds for them, and they revealed themselves to be much more eager to embrace change and learn new skills than their employers gave them credit for.

The Nature of the Gap
When executives today consider the forces that are changing how work is done, they tend to think mostly about disruptive technologies. But that’s too narrow a focus. A remarkably broad set of forces is transforming the nature of work, and companies need to take them all into account.

In our research we’ve identified 17 forces of disruption, which we group into six basic categories. (See the sidebar “The Forces Shaping the Future of Work.”) Our surveys explored the attitudes that business leaders and workers had toward each of them. In their responses, we were able to discern three notable differences in the ways that the two groups think about the future of work.

The first is that workers seem to recognize more clearly than leaders do that their organizations are contending with multiple forces of disruption, each of which will affect how companies work differently. When asked to rate the impact that each of the 17 forces would have on their work lives, using a 100-point scale, the employees rated the force with the strongest impact 15 points higher than the force with the weakest impact. In comparison, there was only a nine-point spread between the forces rated the strongest and the weakest by managers.

In fact, the leaders seemed unable or unwilling to think in differentiated ways about the forces’ potential for disruption. When asked about each force, roughly a third

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<tr>
<th>ACCELERATING TECHNOLOGICAL CHANGE</th>
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<tr>
<td>New technologies that replace human labor, threatening employment (such as driverless trucks)</td>
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<tr>
<td>New technologies that augment or supplement human labor (for example, robots in health care)</td>
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<td>Sudden technology-based shifts in customer needs that result in new business models, new ways of working, or faster product innovation</td>
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<td>Technology-enabled opportunities to monetize free services (such as Amazon web services) or underutilized assets (such as personal consumption data)</td>
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<th>GROWING DEMAND FOR SKILLS</th>
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<td>General increase in the skills, technical knowledge, and formal education required to perform work</td>
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<td>Growing shortage of workers with the skills for rapidly evolving jobs</td>
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<th>TRANSITIONING WORK MODELS</th>
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<tr>
<td>Rise of remote work</td>
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<tr>
<td>Growth of contingent forms of work (such as on-call workers, temp workers, and contractors)</td>
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<tr>
<td>Freelancing and labor-sharing platforms that provide access to talent</td>
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<tr>
<td>Delivery of work through complex partner ecosystems (involving multiple industries, geographies, and organizations of different sizes), rather than within a single organization</td>
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<th>EVOLVING BUSINESS ENVIRONMENT</th>
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<td>New regulation aimed at controlling technology use (for example, “robot taxes”)</td>
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<td>Regulatory changes that affect wage levels, either directly (such as minimum wages or Social Security entitlements) or indirectly (such as more public income assistance or universal basic income)</td>
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<tr>
<td>Regulatory shifts affecting cross-border flow of goods, services, and capital</td>
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<tr>
<td>Greater economic and political volatility as members of society feel left behind</td>
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workers felt that advances such as automation and artificial intelligence would have a positive impact on their future. In fact, they felt that way about two-thirds of the forces. What concerned them most were the forces that might allow other workers—temporary, freelance, outsourced—to take their jobs.

When asked why they had a positive outlook, workers most commonly cited two reasons: the prospect of better wages and the prospect of more interesting and meaningful jobs. Both automation and technology, they felt, heralded opportunity on those fronts—by contributing to the emergence of more-flexible and self-directed forms of work, by creating alternative ways to earn income, and by making it possible to avoid tasks that were “dirty, dangerous, or dull.”

In every country workers described themselves as more willing to prepare for the workplace of the future than managers believed them to be (in Japan, though, the percentages were nearly equal). Yet when asked what was holding workers back, managers chose answers that blamed employees, rather than themselves. Their most common response was that workers feared significant change. The idea that workers might lack the support they needed from employers was only their fifth-most-popular response.

That brings us to our third finding: Workers are seeking more support and guidance to prepare themselves for future employment than management is providing.

In every country except France and Japan, significant majorities of workers reported that they—and not their government or their employer—were responsible for equipping themselves to meet the needs of a rapidly evolving workplace. That held true across age groups and for both men and women. But workers also felt that they had serious obstacles to overcome: a lack of knowledge of them described it as having a significant impact on their organization today; close to half projected that it would have a significant impact in the future; and about a fifth claimed it would have no impact at all. That’s a troubling level of uniformity, and it suggests that most leaders haven’t yet figured out which forces of change they should make a priority.

Interestingly, workers appeared to be more aware of the opportunities and challenges of several of the forces. Notably, workers focused on the growing importance of the gig economy, and they ranked “freelancing and labor-sharing platforms” as the third most significant of all 17 forces. Business leaders, however, ranked that force as the least significant.

The second difference that emerged from our survey was this: Workers seem to be more adaptive and optimistic about the future than their leaders recognize.

The conventional wisdom, of course, is that workers fear that technology will make their jobs obsolete. But our survey revealed that to be a misconception. A majority of the
A majority of workers felt that advances such as automation and artificial intelligence would have a positive impact on their future.

about their options; a lack of time to prepare for the future; high training costs; the impact that taking time off for training would have on wages; and, in particular, insufficient support from their employers. All are barriers that management can and should help workers get past.

What Employers Can Do to Help

The gap in perspectives is a problem because it leads managers to underestimate employees’ ambitions and underinvest in their skills. But it also shows that there’s a vast reserve of talent and energy companies can tap into to ready themselves for the future: their workers.

The challenge is figuring out how best to do that. We’ve identified five important ways to get started.

1. Don’t just set up training programs—create a learning culture.

If companies today engage in training, they tend to do it at specific times (when onboarding new hires, for example), to prepare workers for particular jobs (like selling and servicing certain products), or when adopting new technologies. That worked well in an era when the pace of technological change was relatively slow. But advances are happening so quickly and with such complexity today that companies need to shift to a continuous-learning model—one that repeatedly enhances employees’ skills and makes formal training broadly available. Firms also need to expand their portfolio of tactics beyond online and off-line courses to include learning on the job through project staffing and team rotations. Such an approach can help companies rethink traditional entry-level barriers (among them, educational credentials) and draw from a wider talent pool.

Consider what happens at Expeditors, a Fortune 500 company that provides global logistics and freight-forwarding services in more than 100 countries. In vetting job candidates, Expeditors has long relied on a “hire for attitude, train for skill” approach. Educational degrees are appreciated but not seen as critical for success in most roles. Instead, for all positions, from the lowest level right up to the C-suite, the company focuses on temperament and cultural fit. Once on staff, employees join an intensive program in which every member of the organization, no matter how junior or senior, undertakes 52 hours of incremental learning a year. This practice supports the company’s promote-from-within culture. Expeditors’ efforts seem to be working: Turnover is low (which means substantial savings in hiring, training, and onboarding costs); retention is high (a third of the company’s 17,000 employees have worked at the company for 10 years or more); most senior leaders in the company have risen through the ranks; and several current vice presidents and senior vice presidents, along with the current and former CEOs, got their jobs despite having no college degree.

2. Engage employees in the transition instead of herding them through it.

As companies transform themselves, they often find it a challenge to attract and retain the type of talent they need. To succeed, they have to offer employees pathways to professional and personal improvement—and must engage them in the process of change, rather than merely inform them that change is coming.

That’s what ING Netherlands did in 2014, when it decided to reinvent itself. The bank’s goal was ambitious: to turn itself into an agile institution almost overnight. The company’s current CEO, Vincent van den Boogert, recalls that the company’s leaders began by explaining the why and the what of the transformation to all employees. Mobile and digital technologies were dramatically altering the market, they told everybody, and if ING wanted to meet the expectations of customers, improve operations, and deploy new technological capabilities, it would have to become faster, leaner,
and more flexible. To do that, they said, the company planned to make investments that would reduce costs and improve service. But it would also eliminate a significant number of jobs—at least a quarter of the total workforce.

Then came the how. Rather than letting the ax fall on select employees—a process that creates psychological trauma throughout a company—ING decided that almost everybody at the company, regardless of tenure or seniority, would be required to resign. After that, anybody who felt his or her attitude, capabilities, and skills would be a good fit at the “new” bank could apply to be rehired. That included Van den Boogert himself. Employees who did not get rehired would be supported by a program that would help them find jobs outside ING.

None of this made the company’s transformation easy, of course. But according to Van den Boogert, the inclusive approach adopted by management significantly minimized the pain that employees felt during the transition, and it immediately set the new, smaller bank on the path to success. The employees who rejoined ING actively embraced its new mission, felt less survivor’s remorse, and devoted themselves with excitement to the job of transformation. “When you talk about the why, what, and how at the same time,” Van den Boogert told us, “people are going to challenge the why to prevent the how. But in this case, everyone had already been inspired by the why and what.”

3 Look beyond the “spot market” for talent.

Most successful companies have adopted increasingly aggressive strategies for finding critical high-skilled talent. Now they must expand that approach to include a wider range of employees. AT&T recognized that need in 2013, while developing its Workforce 2020 strategy, which focused on how the company would make the transition from a hardware-centric to a software-centric network.

The company had undergone a major transformation once before, in 1917, when it launched plans to use mechanical switchboards rather than human operators. But it carried that transformation out over the course of five decades! The Workforce 2020 transformation was much more complex and had to happen on a much faster timeline.

To get started, AT&T undertook a systematic audit of its quarter of a million employees to catalog their current skills and compare those with the skills it expected to need during and after its revamp. Ultimately, the company identified 100,000 employees whose jobs were likely to disappear, and several areas in which it would face skills and competency shortages. Armed with those insights, the company launched an ambitious, multiyear $1 billion initiative to develop an internal talent pipeline instead of simply playing the “spot market” for talent. In short, to meet its evolving needs, AT&T decided to make retraining available to its existing workforce. Since then, its employees have taken nearly 3 million online courses designed to help them acquire skills for new jobs in fields such as application development and cloud computing.

Already, this effort has yielded some unexpected benefits. The company now hires far fewer contractors to meet its needs for technical skills, for example. “We’re shifting to employees,” one of the company’s top executives told CNBC this past March, “because we’re starting to see the talent inside.”

4 Collaborate to deepen the talent pool.

In a fast-evolving environment, competing for talent doesn’t work. It simply leads to a tragedy of the commons. Individual companies try to grab the biggest share of the skilled labor available, and these self-interested attempts just end up creating a shortage for all.

To avoid that problem, companies will have to fundamentally change their outlook and work together to ensure that the talent pool is constantly refreshed and updated. That will mean teaming up with other companies in the same industry or region to identify relevant skills, invest in developing curricula, and provide on-the-job training. It will also require forging new relationships for developing talent by,
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Companies will have to fundamentally change their outlook and work together to ensure that the talent pool is constantly refreshed.

for instance, engaging with entrepreneurs and technology developers, partnering with educational institutions, and collaborating with policy makers.

U.S. utilities companies have already begun doing this. In 2006 they joined forces to establish the Center for Energy Workforce Development. The mission of the center, which has no physical office and is staffed primarily by former employees from member companies, is to figure out what jobs and skills the industry will need most as its older workers retire—and then how best to create a pipeline to meet those needs. “We’re used to working together in this industry,” Ann Randazzo, the center’s executive director, told us. “When there’s a storm, everybody gets in their trucks. Even if we compete in certain areas, including for workers, we’ve all got to work together to build this pipeline, or there just aren’t going to be enough people.”

The center quickly determined that three of the industry’s most critical middle-skills jobs—linemen, field operators, and energy technicians—would be hit hard by the retirement of workers in the near future. Together, those three jobs make up almost 40% of a typical utility’s workforce. To make sure they wouldn’t go unfilled, CEWD implemented a two-pronged strategy. It created detailed tool kits, curricula, and training materials for all three jobs, which it made available free to utility companies; and it launched a grassroots movement to reach out to next-generation workers and promote careers in the industry.

CEWD believes in connecting with promising talent early—very early. To that end, it has been working with hundreds of elementary, middle, and high schools to create materials and programs that introduce students to the benefits of working in the industry. These include a sense of larger purpose (delivering critical services to customers); stability (no offshoring of jobs, little technological displacement); the use of automation and technology to make jobs less physically taxing and more intellectually engaging; and, last but not least, surprisingly high wages. Describing the program to us, Randazzo said, “You’re growing a workforce. We had to start from scratch to get students in the lower grades to understand what they need to do and to really be able to grow that all the way through high school to community colleges and universities. And it’s not a one-and-done. We have to continually nurture it.”

Find ways to manage chronic uncertainty.

IN TODAY’S WORLD, managers know that if they don’t swiftly identify and respond to shifts, their companies will be left behind. So how can firms best prepare?

The office-furniture manufacturer Steelcase has come up with some intriguing ideas. One is its Strategic Workforce Architecture and Transformation (SWAT) team, which tracks emerging trends and conducts real-time experiments in how to respond to them. The team has launched an internal platform called Loop, for example, where employees can volunteer to work on projects outside their own functions. This benefits both the company and its employees: As new needs arise, the company can quickly locate workers within its ranks who have the motivation and skills to meet them, and workers can gain experience and develop new capabilities in ways that their current jobs simply don’t allow.

Employees at Steelcase have embraced Loop, and its success illustrates an idea that came through very clearly in our survey results. As Jill Dark, the director of the SWAT team, put it to us, “If you give people the opportunity to learn something new or to show their craft, they will give you their best work. The magic is in providing the opportunity.”

That’s a lesson that all managers should heed.

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Getting an accurate picture of what shapes a person's health is a lot like putting together a complex puzzle — but without the guidance of the picture on the box. Where do you begin?

Most people start with the edges — in health care, that's an individual's medical history. For a long time, adjudicated health insurance claims provided the only insight into care delivery at a population level — the claims could tell us who received care, what care they received, and how often people sought care.

In the mid-2000s, things began to change: the adoption of electronic medical records (EMRs) provided clinicians with an integrated way to document patient care within the four walls of an organization. Electronic medical histories and the ability to share components of them via health information exchanges helped reduce medication errors and manage patient care more effectively.1

Within the past 7-10 years, the industry has started to combine clinical and claims data to create longitudinal patient records that span multiple health systems and insurance companies. This foundation allows us to apply analytics to identify patterns in the data, predict what will happen over time, and match patients to the appropriate clinical intervention — a big leap forward.

Even with these advancements, we are still missing 60 percent of the puzzle.2 Research shows that social determinants of health (SDOH) — where we are born, grow, live, work, and age — can help us fill a big part of the information gap, allowing us to personalize care. Put another way, quantitative measures like number of years of education or hours of sleep are just as important as qualitative data like diet, occupation, and exposure to tobacco.

Integrating SDOH data creates smarter analytics with higher predictive accuracy. This means we can design targeted care management programs, ones that factor in levels of social isolation at home, like family status, and consumer preferences, like the propensity to engage with different forms of outreach: telephonic, apps, email, and direct mail. At a community level, we track over 100 key indicators, including health, well-being, social factors and health care system quality, across 300 key geographies in the U.S. This information provides Optum health care industry partners with a comprehensive picture of community health, empowering them to take action that minimizes health risks for individuals and design innovative research programs.

Building a modern health care ecosystem requires that we take what we learn from the combination of claims, clinical, and SDOH data and apply it at a personal and community level. The next frontier in mitigating health risk comes from data generated by consumers themselves. Used appropriately, internet-connected devices, including sensors, can tell us a lot about a person's daily health status, enabling medical professionals to personalize care and encouraging the wearer to make healthier choices. Employers recognize the value of IoT devices, and many are including them in their benefit plans, saving as much as $222 per member each year.3

Improving health requires treating people, not symptoms. Health care needs the lens of data outside the system walls to serve consumers and their communities as fully as possible, to contain costs, and to improve care.

For more on harnessing consumer data and advanced analytics applications for health care, visit www.optum.com/iq.

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Cross-Silo Leadership

How to create more value by connecting experts from inside and outside the organization

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CHRISTOPHER PAYNE/ESTO
Though most executives recognize the importance of breaking down silos to help people collaborate across boundaries, they struggle to make it happen. That’s understandable: It is devilishly difficult.

Think about your own relationships at work—the people you report to and those who report to you, for starters. Now consider the people in other functions, units, or geographies whose work touches yours in some way. Which relationships get prioritized in your day-to-day job?

We’ve posed that question to managers, engineers, salespeople, and consultants in companies around the world. The response we get is almost always the same: vertical relationships.

But when we ask, “Which relationships are most important for creating value for customers?” the answers flip. Today the vast majority of innovation and business-development opportunities lie in the interfaces between functions, offices, or organizations. In short, the integrated solutions that most customers want—but companies wrestle with developing—require horizontal collaboration.

The value of horizontal teamwork is widely recognized. Employees who can reach outside their silos to find colleagues with complementary expertise learn more, sell more, and gain skills faster. Harvard’s Heidi Gardner has found that firms with more cross-boundary collaboration achieve greater customer loyalty and higher margins. As innovation hinges more and more on interdisciplinary cooperation, digitalization transforms business at a breakneck pace, and globalization increasingly requires people to work across national borders, the demand for executives who can lead projects at interfaces keeps rising.

Our research and consulting work with hundreds of executives and managers in dozens of organizations confirms both the need for and the challenge of horizontal collaboration. “There’s no doubt. We should focus on big projects that call for integration across practices,” a partner in a global accounting firm told us. “That’s where our greatest distinctive value is developed. But most of us confine ourselves to the smaller projects that we can handle within our practice areas. It’s frustrating.” A senior partner in a leading consulting firm put it slightly differently: “You know you should swim farther to catch a bigger fish, but it is a lot easier to swim in your own pond and catch a bunch of small fish.”

One way to break down silos is to redesign the formal organizational structure. But that approach has limits: It’s costly, confusing, and slow. Worse, every new structure solves some problems but creates others. That’s why we’ve focused on identifying activities that facilitate boundary crossing. We’ve found that people can be trained to see and connect with pools of expertise throughout their organizations and to work better with colleagues who think very differently from them. The core challenges of operating effectively at interfaces are simple: learning about people on the other side and relating to them. But simple does not mean easy; human beings have always struggled to understand and relate to those who are different.

Leaders need to help people develop the capacity to overcome these challenges on both individual and organizational levels. That means providing training in and support for four practices that enable effective interface work.
Fortunately, in most companies there are people who already excel at interface collaboration. They usually have experiences and relationships that span multiple sectors, functions, or domains and informally serve as links between them. We call these people cultural brokers. In studies involving more than 2,000 global teams, one of us—Sujin—found that diverse teams containing a cultural broker significantly outperformed diverse teams without one. (See “The Most Creative Teams Have a Specific Type of Cultural Diversity,” HBR.org, July 24, 2018.) Companies should identify these individuals and help them increase their impact.

Cultural brokers promote cross-boundary work in one of two ways: by acting as a bridge or as an adhesive.

A bridge offers himself as a go-between, allowing people in different functions or geographies to collaborate with minimal disruption to their day-to-day routine. Bridges are most effective when they have considerable knowledge of both sides and can figure out what each one needs. This is why the champagne and spirits distributor Moët Hennessy España hired two enologists, or wine experts, to help coordinate the work of its marketing and sales groups, which had a history of miscommunication and conflict. The enologists could relate to both groups equally: They could speak to marketers about the emotional content (the ephemeral “bouquet”) of brands, while also providing pragmatic salespeople with details on the distinctive features of products they needed to win over retailers. Understanding both worlds, the enologists were able to communicate the rationale for each group’s modus operandi to the other, allowing marketing and sales to work more synergistically even without directly interacting. This kind of cultural brokerage is efficient because it lets disparate parties work around differences without investing in learning the other side’s perspective or changing how they work. It’s especially valuable for one-off collaborations or when the company is under intense time pressure to deliver results.

Adhesives, in contrast, bring people together and help build mutual understanding and lasting relationships. Take one manager we spoke with at National Instruments, a global producer of automated test equipment. He frequently connects colleagues from different regions and functions. “I think of it as building up the relationships between them,” he told us. “If a colleague needs to work with someone in another office or function, I would tell them, ‘OK, here’s the person to call.’ Then I’d take the time to sit down and say, ‘Well, let me tell you a little bit about how these guys work.’” Adhesives facilitate collaboration by vouching for people and helping them decipher one another’s language. Unlike bridges, adhesives develop others’ capacity to work across a boundary in the future without their assistance.

Company leaders can build both bridging and adhesive capabilities in their organizations by hiring people with multifunctional or multicultural backgrounds who have

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IDEA IN BRIEF

THE CHALLENGE
Innovation initiatives, globalization, and digitalization increasingly require people to collaborate across functional and national boundaries. But breaking down silos remains frustratingly difficult.

THE CAUSE
Employees don’t know how to identify expertise outside their own work domains and struggle to understand the perspectives of colleagues who think very differently from them.

THE SOLUTION
Leaders can help employees connect with and relate to people across organizational divides by doing four things: developing and deploying “cultural brokers,” who help groups overcome differences; encouraging and training workers to ask the right questions; getting people to see things through others’ eyes; and broadening everyone’s vision of networks of expertise inside and outside the company.
the strong interpersonal skills needed to build rapport with multiple parties. Because it takes resilience to work with people across cultural divides, firms should also look for a *growth mindset*—the desire to learn and to take on challenges and “stretch” opportunities.

In addition, leaders can develop more brokers by giving people at all levels the chance to move into roles that expose them to multiple parts of the company. This, by the way, is good training for general managers and is what many rotational leadership-development programs aim to accomplish. Claudine Wolfe, the head of talent and development at the global insurer Chubb, maintains that the company’s capacity to serve customers around the world rests on giving top performers opportunities to work in different geographies and cultivate an international mindset. “We give people their critical development experiences steeped in the job, in the region,” she says. “They get coaching in the cultural norms and the language, but then they live it and internalize it. They go to the local bodega, take notice of the products on the shelves, have conversations with the merchant, and learn what it really means to live in that environment.”

Matrix organizational structures, in which people report to two (or more) groups, can also help develop cultural brokers. Despite their inherent challenges (they can be infuriatingly hard to navigate without strong leadership and accountability), matrices get people used to operating at interfaces.

We’re not saying that everyone in your organization needs to be a full-fledged cultural broker. But consciously expanding the ranks of brokers and deploying them to grease the wheels of collaboration can go a long way.
showed that managers with high levels of curiosity were more likely to build networks that spanned disconnected parts of the company.

But all of us are vulnerable to forgetting the crucial practice of asking questions as we move up the ladder. High-achieving people in particular frequently fail to wonder what others are seeing. Worse, when we do recognize that we don’t know something, we may avoid asking a question out of (misguided) fear that it will make us look incompetent or weak. “Not asking questions is a big mistake many professionals make,” Norma Kraay, the managing partner of talent for Deloitte Canada, told us. “Expert advisers want to offer a solution. That’s what they’re trained to do.”

Leaders can encourage inquiry in two important ways—and in the process help create an organization where it’s psychologically safe to ask questions.

Encourage People to Ask the Right Questions

It’s nearly impossible to work across boundaries without asking a lot of questions. Inquiry is critical because what we see and take for granted on one side of an interface is not the same as what people experience on the other side.

Indeed, a study of more than 1,000 middle managers at a large bank that Tiziana conducted with Bill McEvily and Evelyn Zhang of the University of Toronto and Francesca Gino of Harvard Business School highlights the value of inquisitiveness in boundary-crossing work. It

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showed that managers with high levels of curiosity were more likely to build networks that spanned disconnected parts of the company.
Be a role model. When leaders show interest in what others are seeing and thinking by asking questions, it has a stunning effect: It prompts people in their organizations to do the same.

Asking questions also conveys the humility that more and more business leaders and researchers are pointing to as vital to success. According to Laszlo Bock, Google’s former senior vice president of people operations, humble people are better at bringing others together to solve tough problems. In a fast-changing business environment, humility—not to be confused with false modesty—is simply a strength. Its power comes from realism (as in *It really is a complex, challenging world out there; if we don’t work together, we don’t stand a chance*).

Gino says one way a leader can make employees feel comfortable asking questions is by openly acknowledging when he or she doesn’t know the answer. Another, she says, is by having days in which employees are explicitly encouraged to ask “Why?” “What if...?” and “How might we...?” (See “The Business Case for Curiosity,” HBR, September–October 2018.)

Teach employees the art of inquiry. Training can help expand the range and frequency of questions employees ask and, according to Hal Gregersen of the MIT Leadership Center, can reinvigorate their sense of curiosity. But some questions are better than others. (See the sidebar “How to Ask Good Questions.”) And if you simply tell people to raise more questions, you might unleash interrogation tactics that inhibit rather than encourage the development of new perspectives. As MIT’s Edgar Schein explains in his book *Humble Inquiry*, questions are the secret to productive work relationships—but they must be driven by genuine interest in understanding another’s view.

It’s also important to learn how to request information in the least biased way possible. This means asking open-ended questions that minimize preconceptions, rather than yes-or-no questions. For instance, “What do you see as the key opportunity in this space?” will generate a richer dialogue than “Do you think this is the right opportunity to pursue?”

As collaborations move forward, it’s helpful for team leaders or project managers to raise queries that encourage others to dive more deeply into specific issues and express related ideas or experiences. “What do you know about x?” and “Can you explain how that works?” are two examples. These questions are focused but neither limit responses nor invite long discourses that stray too far from the issue at hand.

How you process the answers also matters. It’s natural, as conversations unfold, to assume you understand what’s being said. But what people hear is biased by their expertise and experiences. So it’s important to train people to check whether they’re truly getting their colleagues’ meaning, by using language like “This is what I’m hearing—did I miss anything?” or “Can you help me fill in the gaps?” or “I think what you said means the project is on track. Is that correct?”

Finally, periodic temperature taking is needed to examine the collaborative process itself. The only way to find out how others are experiencing a project or relationship is by asking questions such as “How do you think the project is going?” and “What could we do to work together more effectively?”

Get People to See the World Through Others’ Eyes

Leaders shouldn’t just encourage employees to be curious about different groups and ask questions about their thinking and practices; they should also urge their people to actively consider others’ points of view. People from different organizational groups don’t see things the same way. Studies (including research on barriers to successful product innovation that the management professor Deborah Dougherty conducted at Wharton) consistently reveal that this leads to misunderstandings in interface work. It’s vital, therefore, to help people learn how to take the perspectives of others. One of us, Amy, has done research showing that ambitious cross-industry innovation projects succeed when diverse participants discover how to do this. New Songdo, a project to build a city from scratch in South Korea that launched a decade ago, provides an instructive example. Early in the effort, project leaders brought together architects, engineers, planners, and environmental experts and helped them integrate their expertise in a carefully crafted learning process designed to break down barriers between disciplines. Today, in striking contrast to other “smart” city projects,
New Songdo is 50% complete and has 30,000 residents, 33,000 jobs, and emissions that are 70% lower than those of other developments its size.

In a study of jazz bands and Broadway productions, Brian Uzzi of Northwestern University found that leaders of successful teams had an unusual ability to assume other people’s viewpoints. These leaders could speak the multiple “languages” of their teammates. Other research has shown that when members of a diverse team proactively take the perspectives of others, it enhances the positive effect of information sharing and increases the team’s creativity.

Creating a culture that fosters this kind of behavior is a senior leadership responsibility. Psychological research suggests that while most people are capable of taking others’ perspectives, they are rarely motivated to do so. Leaders can provide some motivation by emphasizing to their teams how much the integration of diverse expertise enhances new value creation. But a couple of other tactics will help:

**Organize cross-silo dialogues.** Instead of holding one-way information sessions, leaders should set up cross-silo discussions that help employees see the world through the eyes of customers or colleagues in other parts of the company. The goal is to get everyone to share knowledge and work on synthesizing that diverse input into new solutions. This happens best in face-to-face meetings that are carefully structured to allow people time to listen to one another’s thinking. Sometimes the process includes customers; one consulting firm we know started to replace traditional meetings, at which the firm conveyed information to clients, with a workshop format designed to explore questions and develop solutions in collaboration with them. The new format gives both the clients and the consultants a chance to learn from each other.

One of the more thoughtful uses of cross-silo dialogue is the “focused event analysis” (FEA) at Children’s Minnesota. In an FEA people from the health system’s different clinical and operational groups come together after a failure, such as
the administration of the wrong medication to a patient. One at a time participants offer their take on what happened; the goal is to carefully document multiple perspectives before trying to identify a cause. Often participants are surprised to learn how people from other groups saw the incident. The assumption underlying the FEA is that most failures have not one root cause but many. Once the folks involved have a multifunctional picture of the contributing factors, they can alter procedures and systems to prevent similar failures.

**Hire for curiosity and empathy.** You can boost your company’s capacity to see the world from different perspectives by bringing on board people who relate to and sympathize with the feelings, thoughts, and attitudes of others. Southwest Airlines, which hires fewer than 2% of all applicants, selects people with empathy and enthusiasm for customer service, evaluating them through behavioral interviews (“Tell me about a time when...”) and team interviews in which candidates are observed interacting.

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**Broaden Your Employees' Vision**

**YOU CAN’T LEAD AT** the interfaces if you don’t know where they are. Yet many organizations unwittingly encourage employees to never look beyond their own immediate environment, such as their function or business unit, and as a result miss out on potential insights employees could get if they scanned more-distant networks. Here are some ways that leaders can create opportunities for employees to widen their horizons, both within the company and beyond it:

**Bring employees from diverse groups together on initiatives.** As a rule, cross-functional teams give people across silos a chance to identify various kinds of expertise within their organization, map how they’re connected or disconnected, and see how the internal knowledge network can be linked to enable valuable collaboration.

At one global consulting firm, the leader of the digital health-care practice used to have its consultants speak just to clients’ CIOs and CTOs. But she realized that that

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**How to Ask Good Questions**

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<tr>
<th>COMMON PITFALLS</th>
<th>EFFECTIVE INQUIRY</th>
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<tr>
<td>Start with yes-or-no questions.</td>
<td>Start with open-ended questions that minimize preconceptions.</td>
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<td>(“How are things going on your end?” “What does your group see as the key opportunity in this space?”)</td>
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<td>Continue asking overly general questions (“What’s on your mind?”) that may invite long off-point responses.</td>
<td>As collaborations develop, ask questions that focus on specific issues but allow people plenty of room to elaborate. (“What do you know about x?” “Can you explain how that works?”)</td>
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<td>Assume that you’ve grasped what speakers intended.</td>
<td>Check your understanding by summarizing what you’re hearing and asking explicitly for corrections or missing elements. (“Does that sound right—am I missing anything?” “Can you help me fill in the gaps?”)</td>
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<tr>
<td>Assume the collaboration process will take care of itself.</td>
<td>Periodically take time to inquire into others’ experiences of the process or relationship. (“How do you think the project is going?” “What could we do to work together more effectively?”)</td>
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“unnecessarily limited the practice’s ability to identify opportunities to serve clients beyond IT,” she says. So she began to set up sessions with the entire C-suite at clients and brought in consultants from across all her firm’s health-care practices—including systems redesign, operations excellence, strategy, and financing—to provide a more integrated look at the firm’s health-care innovation expertise.

Those meetings allowed the consultants to discover the connections among the practices in the health-care division, identify the people best positioned to bridge the different practices, and see novel ways to combine the firm’s various kinds of expertise to meet clients’ needs. That helped the consultants spot value-generating opportunities for services
You can’t lead at the interfaces if you don’t know where they are. Yet many firms unwittingly encourage employees not to look beyond their immediate environment.

at the interfaces between the practices. The new approach was so effective that, in short order, the leader was asked to head up a new practice that served as an interface across all the practices in the IT division so that she could replicate her success in other parts of the firm.

Urge employees to explore distant networks. Employees also need to be pushed to tap into expertise outside the company and even outside the industry. The domains of human knowledge span science, technology, business, geography, politics, history, the arts, the humanities, and beyond, and any interface between them could hold new business opportunities. Consider the work of the innovation consultancy IDEO. By bringing design techniques from technology, science, and the arts to business, it has been able to create revolutionary products, like the first Apple mouse (which it developed from a Xerox PARC prototype into a commercial offering), and help companies in many industries embrace design thinking as an innovation strategy.

The tricky part is finding the domains most relevant to key business goals. Although many innovations have stemmed from what Abraham Flexner, the founding director of Princeton’s Institute for Advanced Study, called “the usefulness of useless knowledge,” businesses can ill afford to rely on open-ended exploratory search alone. To avoid this fate, leaders can take one of two approaches:

A top-down approach works when the knowledge domains with high potential for value creation have already been identified. For example, a partner in an accounting firm who sees machine learning as key to the profession’s future might have an interested consultant or analyst in her practice take online courses or attend industry conferences about the technology and ask that person to come back with ideas about its implications. The partner might organize workshops in which the junior employee shares takeaways from the learning experiences and brainstorm, with experienced colleagues, potential applications in the firm.

A bottom-up approach is better when leaders have trouble determining which outside domains the organization should connect with—a growing challenge given the speed at which new knowledge is being created. Increasingly, leaders must rely on employees to identify and forge connections with far-flung domains. One approach is to crowdsource ideas for promising interfaces—for example, by inviting employees to propose conferences in other industries they’d like to attend, courses on new skill sets they’d like to take, or domain experts they’d like to bring in for workshops. It’s also critical to give employees the time and resources to scan external domains and build connections to them.

Breaking Down Silos

IN TODAY’S ECONOMY everyone knows that finding new ways to combine an organization’s diverse knowledge is a winning strategy for creating lasting value. But it doesn’t happen unless employees have the opportunities and tools to work together productively across silos. To unleash the potential of horizontal collaboration, leaders must equip people to learn and to relate to one another across cultural and logistical divides. The four practices we’ve just described can help.

Not only is each one useful on its own in tackling the distinct challenges of interface work, but together these practices are mutually enhancing: Engaging in one promotes competency in another. Deploying cultural brokers who build connections across groups gets people to ask questions and learn what employees in other groups are thinking. When people start asking better questions, they’re immediately better positioned to understand others’ perspectives and challenges. Seeing things from someone else’s perspective—walking in his or her moccasins—in turn makes it easier to detect more pockets of knowledge. And network scanning illuminates interfaces where cultural brokers might be able to help groups collaborate effectively.

Over time these practices—none of which require advanced degrees or deep technical smarts—dissolve the barriers that make boundary-crossing work so difficult. When leaders create conditions that encourage and support these practices, collaboration across the interface will ultimately become second nature.

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Help your workforce see eye to AI.

The future of work is in plain sight. Automation can help workers do rote tasks faster and more accurately. AI delivers insight in real time, enabling workers to focus on creative efforts and problem-solving. See what it all could mean for your company and people. Visit deloitte.com/makeyourimpact.
As cognitive and IoT technologies generate ever larger and more varied data sets, companies face the challenge of unlocking the value of that data. And those that are failing to effectively apply data science may be putting themselves at a competitive disadvantage.

Data scientist is one of the hottest job titles today, and battles for talent are fierce. Whether the talent shortage is real or overhyped, companies should investigate a mix of new tools, staffing models, and training strategies.

The title data scientist generally refers to a professional with a graduate degree in computer science and expertise in mathematics, statistics, computer programming, and business knowledge. These specialists tend to handle a variety of tasks critical to enterprise analytics projects, such as collecting, cleansing, and organizing large and varied data sets; designing and testing various algorithms; building and deploying machine learning-based solutions; analyzing data for patterns; and communicating findings to business stakeholders.

Since nearly every major company is actively looking for data science talent, the demand has rapidly outpaced the supply of people with required skills.

Based on current demand and supply dynamics, the United States alone is projected to face a shortfall of some 250,000 data scientists by 2024. Data science and analytics jobs typically take 45 days to fill, five days longer than the US market average, according to one study. The skills gap and longer hiring times can cause project delays and higher costs, hindering enterprises’ data analytics efforts.

But a number of recent trends may change how companies acquire and apply data science capabilities, presenting savvy companies with some options for alleviating the talent bottleneck.
Automation and Education Are Bringing Data Science to Everyone

Most vendors in the data science and analytics market have made tool simplification a top goal; they are aiming to broaden and accelerate the adoption of data science and analytics capabilities. And an array of training resources are helping professionals with diverse backgrounds gain relevant data science skills.

For the foreseeable future, elite data scientists will be in high demand. But five factors are beginning to democratize data science, helping to put this critical capability in the hands of more professionals and potentially alleviating a crippling talent shortage.

Automated machine learning. By some estimates, data scientists spend around 80 percent of their time on repetitive and tedious tasks that can be fully or partially automated. These tasks might include data preparation, feature engineering and selection, and algorithm selection and evaluation. Various tools and techniques designed to automate such tasks have been introduced by both established vendors and startups. Automating the work of data scientists helps make them more productive and more effective.

App development without coding. Low-code and no-code software development platforms offer graphical user interfaces, drag-and-drop modules, and other user-friendly structures to help both IT and nontechnical staff accelerate AI app development and delivery. For example, using a no-code platform, salespeople can build a machine learning-based tool themselves to provide product recommendations to customers based on cross-sell opportunities. These platforms have the potential to make software development up to 10 times faster than traditional methods. Apart from building their own solutions, key technology vendors have acquired startups to offer or strengthen their low-code and no-code platforms.

Pre-trained AI models. Developing and training machine learning modules is a core activity of data scientists. Now, key AI software vendors as well as several startups have launched pre-trained AI models, effectively packaging machine learning expertise and turning it into products. These solutions can slash the time and effort required for training, or even start producing specific insights right away. Mostly pre-trained models are available for use cases related to image, video, audio, or text analysis such as sentiment analysis, sales opportunity workflow automation, customer service, automated equipment inspection, and interactive advertising.

Self-service data analytics. Increasingly, business or nontechnical users have tools at their disposal that can deliver data-based insights without involving analytics specialists, including data scientists. Self-service analytics tools offered by many business intelligence and analytics vendors now include features to augment data analytics and discovery. Some automate the process of developing and deploying machine learning models. Features such as natural language query and search, visual data discovery, and natural language generation help users automatically find, visualize, and narrate data findings like correlations, exceptions, clusters, links, and predictions. These capabilities empower business users to perform complex data analysis and get quick access to customized insights without relying on data scientists and analytics teams.

Accelerated learning. Data science and AI-related training courses and boot camps are proliferating. These training programs are aimed at professionals with basic mathematics and coding backgrounds and can impart basic data science skills in a period ranging from a couple of days to a couple of months. Such courses are intended to enable professionals to bring basic data science skills to projects quickly.

Changing Roles of Data Analytics and Business Teams

Many organizations don't recognize the mix of talent and skills required to be successful when applying data science. Some put great faith in data scientists but fail to reckon with the importance of business and functional expertise to the success of a project. Success depends on more than technology talent—it requires the right mix of skills and expertise.

Eventually, the democratization of data science will enable greater collaboration between business and data science experts in building data-centered solutions.
Execution of this plan is a shared and distributed responsibility. So it may make sense for an organization to assemble a cross-functional team to assess overall needs and assets. HR can make sure training options are available; the data science leadership can push for the use for automated tools; and IT can select and promote the use of no-code tools and self-service analytics.

Some companies have started effectively expanding their data science efforts by providing data science automation tools to a mix of professionals including data scientists, data engineers, statisticians, and business users. Others find that breaking down the data science role into a collection of more specialized roles with overlapping skills makes it easier to get the mix of skills required to staff projects.

**Challenges on the Way to Data Science Democratization**
To benefit from the democratization of data science and analytics, enterprises will need to address some challenges. Since a lot of the technological advancements have happened recently, enterprises may encounter resistance to using these solutions.

Business users may not be ready to trust them, preferring to continue relying on intuition and traditional decision-making processes.

Technical experts, by contrast, may resist changing their workstyle and automating tasks they think of as requiring expert craftsmanship.

Without proper onboarding and training, users provided access to data science automation and self-service tools may fail to derive relevant insights or misinterpret or misapply the results in decision-making.

Wide adoption of these tools will necessitate instituting governance procedures that run the risk of becoming bottlenecks. Inadequate data controls and governance practices in enterprises may lead to creation of information silos, bad analysis, and lack of accountability. Thus, companies need to prepare to address these challenges before moving forward with data science democratization.

**Putting Data Science in Your Team’s Hands**
Companies seeking to develop data science capabilities are facing a tight market for talent. To avoid being blocked by a labor shortage, they should consider creating a plan with a multipronged approach, including employing automated tools and pre-trained models, empowering nontechnical users with no-code tools and self-service analytics, and investing in training their own staff in data science by selecting a high-quality, accelerated training option from among the many currently available.

Execution of this plan is a shared and distributed responsibility. So it may make sense for an organization to assemble a cross-functional team to assess overall needs and assets. HR can make sure training options are available; the data science leadership can push for the use for automated tools; and IT can select and promote the use of no-code tools and self-service analytics.

Companies should also explore hybrid staffing models for their data science projects. Rather than overburdening the data scientists with all the analytics work, they can assemble combinations of experts such as data engineers, statisticians, and business analysts and equip them with relevant data science automation and self-service tools. A common practice, for instance, is to embed data scientists in application or product teams to help design and build solutions and, in the process, transfer data science knowledge to others on the team.

Subject-matter experts who can “speak data” to data scientists while “speaking business” to executives can be valuable additions to the teams working on data science projects. This helps to foster a culture of collaboration between data science experts and business users, enabling data scientists to focus more on advanced and complex processes while reducing time to access actionable insights for business users. These subject-matter experts are often people within a line of business, who are familiar with the issues and opportunities that are unique to a particular business but have also gained data skills.

Those enterprises that seek to build armies of data scientists may continue to struggle to hire the desired talent, end up overspending on salaries, and get stuck with excess human capital in coming years.

Those that leverage new automation, self-service, and training solutions may be able to mitigate the data scientist shortage without going on a hiring binge.
How to Design an Ethical Organization
IDEA IN BRIEF

THE PROBLEM
Unethical behavior ruins reputations, harms employee morale, and increases regulatory costs—not to mention damages society’s trust in business. Yet corporate scandals are a recurring reality.

WHAT DOESN’T WORK
Compliance programs take a legalistic approach to ethics that focuses on individual accountability—but a large body of behavioral science research suggests that even well-meaning and well-informed individuals are ethically malleable.

A BETTER WAY
Leaders must design workplace contexts that encourage good behavior. Keeping prosocial values top of mind for employees as they make decisions will reduce the likelihood of transgressions while making workers happier and more productive.

From Volkswagen’s emissions fiasco to Wells Fargo’s deceptive sales practices to Uber’s privacy intrusions, corporate wrongdoing is a continuing reality in global business. Unethical behavior takes a significant toll on organizations by damaging reputations, harming employee morale, and increasing regulatory costs—not to mention the wider damage to society’s overall trust in business. Few executives set out to achieve advantage by breaking the rules, and most companies have programs in place to prevent malfeasance at all levels. Yet recurring scandals show that we could do better.
Interventions to encourage ethical behavior are often based on misperceptions of how transgressions occur, and thus are not as effective as they could be. Compliance programs increasingly take a legalistic approach to ethics that focuses on individual accountability. They’re designed to educate employees and then punish wrongdoing among the “bad apples” who misbehave. Yet a large body of behavioral science research suggests that even well-meaning and well-informed people are more ethically malleable than one might guess. When watching a potential emergency unfold, for example, people are much more likely to intervene if they are alone than if other bystanders are around—because they think others will deal with the situation, believe that others are more qualified to help, or fail to recognize an emergency because others don’t look alarmed. Small changes to the context can have a significant effect on a person’s behavior. Yet people in the midst of these situations tend not to recognize the influence of context. In Stanley Milgram’s famous obedience experiments, participants who were told by an authority figure to deliver increasingly powerful electric shocks to another person progressed to a much higher voltage than other people predicted they themselves would deliver. Context is not just powerful, researchers have learned; it is surprisingly powerful.

Pillars of an Ethical Culture

Creating an ethical culture thus requires thinking about ethics not simply as a belief problem but also as a design problem. We have identified four critical features that need to be addressed when designing an ethical culture: explicit values, thoughts during judgment, incentives, and cultural norms.

**Explicit Values** > Strategies and practices should be anchored to clearly stated principles that can be widely shared within the organization. A well-crafted mission statement can help achieve this, as long as it is used correctly. Leaders can refer to it to guide the creation of any new strategy or initiative and note its connection to the company’s principles when addressing employees, thus reinforcing the broader ethical system. Employees should easily be able to see how ethical principles influence a company’s practices. They’re likely to behave differently if they think the organization is being guided by the ethos of Mr. Rogers, the relentlessly kind PBS show host, versus that of Gordon Gekko, the relentlessly greedy banker in the film *Wall Street*. Indeed, in one experiment, 70% of participants playing an economic game with a partner cooperated for mutual gain when it was called the Community Game, but only 30% cooperated when it was called the Wall Street Game. This dramatic effect occurred even though the financial incentives were identical.

A mission statement should be simple, short, actionable, and emotionally resonant. Most corporate mission statements today are too long to remember, too obvious to need stating, too clearly tailored for regulators, or too distant from day-to-day practices to meaningfully guide employees. A statement can’t be just words on paper; it must undergird not only strategy but policies around hiring, firing, promoting, and operations so that core ethical principles are deeply embedded throughout the organization. Patagonia’s mission statement, for instance, is “Build the best product, cause no unnecessary harm, use business to inspire and implement solutions to the environmental crisis.” Its Worn Wear initiative implements its mission by enabling employees to help consumers repair or recycle their products. Patagonia also developed a standardized metric, posted on its website, to evaluate the environmental impact of its entire supply chain. Zappos says its number one core value is to “Deliver WOW through service” to customers, according them respect and dignity. It implements this value by not measuring the average length of customer service calls (the industry standard), so employees can spend as much time with customers as necessary. Mission statements like these help keep an organization’s values crystal clear in employees’ minds.

**Thoughts During Judgment** > Most people have less difficulty knowing what’s right or wrong than they do keeping ethical considerations top of mind when making decisions. Ethical lapses can therefore be reduced in a culture where ethics are at the center of attention. You might know that it’s wrong to hurt someone else’s chances of being hired but fail to think of the harm you cause to unknown applicants when trying to help a friend, a family member, or a business school classmate land a job. Behavior tends to be guided by what comes to mind immediately before
engaging in an action, and those thoughts can be meaningfully affected by context. Should someone remind you that helping a friend necessarily hurts the chances of people you don’t happen to know, you might think twice about whether your advocacy efforts are appropriate.

Several experiments make this point. In one, people were more likely to tell the truth when an honor code came at the beginning of a form—thereby putting ethics top of mind as they completed the form—than when it was posted at the end. In a large field experiment of approximately 18,000 U.S. government contractors, simply adding a box for filers to check certifying their honesty while reporting yielded $28.6 million more in sales tax revenue than did a condition that omitted the box. And in a simulation that asked MBA students to play the role of financial adviser, having them complete an ethics checklist before recommending potential investment funds significantly decreased the percentage who recommended what turned out to be the Madoff feeder fund. When ethics were top of mind, the students were more alert to the possibility that the fund was too good to be true.

As a counterexample, Enron was notorious for its constant focus on stock price, even posting it in the elevators. Reflecting on his own misdeeds, its former CFO Andy Fastow said, “I knew it was wrong…. But I didn’t think it was illegal…. The question I should have asked is not what is the rule, but what is the principle.” People working in an ethical culture are routinely triggered to think, Is it right? rather than Is it legal?

**INCENTIVES**

It is a boring truism that people do what they’re incentivized to do, meaning that aligning rewards with ethical outcomes is an obvious solution to many ethical problems. That may sound simple (just pay people for acting ethically), but money goes only so far, and incentive programs must provide a variety of rewards to be effective.

Along with earning an income, employees care about doing meaningful work, making a positive impact, and being respected or appreciated for their efforts. In one experiment, hospital staff members were more likely to follow correct handwashing procedures when a sign above the sink reminded them of consequences to others (“Hand hygiene prevents patients from catching diseases”) than when it reminded them of personal consequences. Nevertheless, managers may easily overlook the importance of nonfinancial incentives. When asked how important such incentives were to employees, customer service managers at one Fortune 500 firm tended to dramatically underestimate what they meant to their reports.

In addition to aligning financial incentives with desired outcomes, ethical cultures provide explicit opportunities to benefit others and reward people who do so with recognition, praise, and validation. If, for instance, your employees are making people’s lives meaningfully better in some way, pointing that out will encourage future ethical behavior. It may even improve performance, because the reward is aligned with ethical motivation. In one experiment, salespeople for a large pharmaceutical company performed dramatically better after participating in a prosocial bonus system, which encouraged them to spend a small award on their teammates, compared with a typical “proself” bonus system, in which they spent the award on themselves.

This approach to incentives may have ancillary HR benefits. People tend to underestimate both how positive they will feel about connecting with others in a prosocial way and the positive impact their behavior will have on others. In a field experiment with Virgin Atlantic pilots, a bonus system for increasing fuel economy was structured so that the bonus went to a charity of their choosing. The resulting increase in their job satisfaction was similar in magnitude to the effect of moving from poor health to good health. Companies that use prosocial incentives are likely to produce happier, more satisfied, and more loyal employees. An ethical culture not only does good; it also feels good.

**CULTURAL NORMS**

Most leaders intuitively recognize the importance of “tone at the top” for setting ethical standards in an organization. Easily overlooked is “tone in the middle,” which may actually be a more significant driver of employees’ behavior. Good leaders produce good followers; but if employees in the middle of the organization are surrounded by coworkers who are lying, cheating, or stealing, they will most likely do the same, regardless of what their bosses say. So-called *descriptive norms*—how peers actually behave—tend to exert the most social influence. In one field experiment conducted by a UK government agency, 13 versions of a letter were sent to delinquent taxpayers, including versions that referenced moral principles, the ease
of paying taxes, or financial penalties. The most effective letter compared the recipient’s behavior with that of fellow citizens: “Nine out of ten people in the UK pay their taxes on time. You are currently in the very small minority of people who have not paid us yet.”

People often fail to appreciate the power of social norms. When researchers were interested in determining how best to encourage energy efficiency among a group of Californians, for instance, they first asked a group of nearly 1,000 residents to predict the effectiveness of various approaches, including appeals to environmental protection, personal financial benefits, societal benefits, and social norms (what percentage of neighbors conserved energy by using fans). These residents expected that the environmental appeal would be most persuasive and the social norm appeal least persuasive. But when the researchers sent about 1,000 other residents one of the four appeals, the social norm had by far the biggest effect on reducing energy use.

Leaders can encourage an ethical culture by highlighting the good things employees are doing. Although the natural tendency is to focus on cautionary tales or “ethical black holes,” doing so can make undesirable actions seem more
common than they really are, potentially increasing unethical behavior. To create more ethical norms, focus instead on “ethical beacons” in your organization: people who are putting the mission statement into practice or behaving in an exemplary fashion.

Putting Ethical Design into Practice

A LEADER DESIGNING an ethical culture should try to create contexts that keep ethical principles top of mind, reward ethics through formal and informal incentives and opportunities, and weave ethics into day-to-day behavior. Precisely how this is achieved will vary among organizations, but here are a few examples.

HIRING > First impressions are inordinately powerful. For many employees, an organization’s values were revealed during the hiring process. Although interviews are typically treated as opportunities for identifying the best candidate, they also begin the acculturation process. At one Fortune 100 firm, for instance, interview questions are designed around a core value, such as putting customer needs first. In one interview script, candidates are told of this value and then asked, “Tell me about a time when you uncovered an unmet need of a customer that you were able to address.” We don’t know if this question identified people who are good at treating customers respectfully, but that’s not necessarily the point. Highlighting values in the interview reveals their importance to the organization. It is one piece of a broader system that draws attention to ethics.

EVALUATION > Ethics can also be woven into the design of performance evaluations to highlight their importance to an organization as well as to reward and encourage good behavior. At Johnson & Johnson, for instance, each executive’s 360-degree evaluation is built on the four components of the company’s famous credo, which expresses commitment to customers, employees, communities, and stakeholders. In one version of the evaluation we saw, each executive was rated on items such as “nurtures commitment to our Credo,” “confronts actions that are, or border on, the unethical,” and “establishes an environment in which uncompromising integrity is the norm.”

COMPENSATION > Aligning financial incentives with ethical outcomes may sound easy in principle, but it is tricky in practice. This is where a mission statement can help. Southwest Airlines has used an executive scorecard to tie compensation to its four core values: every employee matters, every flight matters, every customer matters, and every shareholder matters. Each value is demonstrated by an objective measurement—“every employee matters” by voluntary turnover; “every flight matters” by ontime performance. This scorecard highlights how well core ethical values align with business success, helps keep employees’ attention on them, and suggests the behaviors needed to realize them.

Leaders can reward ethical actions by showing employees the positive impact of their work on others and recognizing their actions in presentations and publications. They can also create opportunities within the organization to behave ethically toward colleagues. In one recent field experiment, managers were randomly assigned to perform five acts of kindness for certain fellow employees over a four-week period. Not only did this increase the number of kind acts observed within the organization, but recipients were more likely than controls to subsequently do kind things for other employees, demonstrating that ethical behavior can be contagious. These acts of kindness improved well-being for those performing them as well as for recipients. Perhaps most important, depressive symptoms dropped dramatically among both groups compared with the control condition, a result that continued for at least three months beyond the initial one-month intervention.

Ethics, by Design

NO COMPANY WILL ever be perfect, because no human being is perfect. Indeed, some companies we’ve used as examples have had serious ethical lapses. Real people are not purely good or purely evil but are capable of doing both good and evil. Organizations should aim to design a system that makes being good as easy as possible. That means attending carefully to the contexts people are actually in, making ethical principles foundational in strategies and policies, keeping ethics top of mind, rewarding ethical behavior through a variety of incentives, and encouraging ethical norms in day-to-day practices. Doing so will never turn an organization full of humans into a host of angels, but it can help them be as ethical as they are capable of being.

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South Louisiana’s Port Fourchon plays a critical role in U.S. national security by routing nearly 19 percent of the total U.S. oil supply and servicing over 90 percent of the Gulf of Mexico’s deep-water oil production.

The port is also critical to the economy. It’s estimated that just a three-week closure of Port Fourchon could result in the loss of $11.2 billion in business sales, more than $3.1 billion in household earnings and more than 65,000 jobs lost locally and nationally.

To ensure Port Fourchon’s future, there are proposals to deepen the port’s access channel, allowing bigger vessel traffic, as well as facilities that could build and repair deep water drilling rigs. But dredging the access channel will create millions of cubic yards of sediment. Where will all that clay and sand go?

Louisiana’s Water Institute, working with a range of corporate, government and academic institutions including the Dutch research institute Deltares, has identified a synergetic destination for the excess sediment. The Institute is studying not just the cost-worthiness of dredging, but how to use dredge material to protect the port’s critical infrastructure, create new wetlands and ecosystems, and provide a protective nature-based defense.

The project is just one example of Louisiana’s growing leadership in the water management sector—where more than 100,000 professionals now focus their skills on the fragile relationship between coastal lands and water. Across Louisiana, researchers, entrepreneurs, scientists and engineers are devising ways to slow and reverse coastal land loss, to boost seafood production and to build shoreline defenses with maximum efficiency. These projects are exploring new ideas and technologies as communities around the globe face rising seas and other risks.

Prioritizing water management was born of necessity, says Secretary of Louisiana Economic Development Don Pierson. Sea level rise, sinking land and storms increasingly threaten the economic sustainability of Louisiana’s gulf coastal areas at a time when populations, jobs and infrastructure investments have been rising. “Water is a critical element of life here—and an enormous challenge,” Pierson said.

In the wake of Hurricanes Katrina and Rita, the state used money from offshore drilling royalties to form the Coastal Protection and Restoration Authority. The governmental authority focuses on projects that ensure survival of the coastal ecosystem and protect economic and cultural resources. It is now part of the Water Campus, a 35-acre, public-private research park at the foot of the Mississippi River bridge, near downtown Baton Rouge and Louisiana State University.

A key tenant of that campus is the Water Institute of the Gulf, a not-for-profit, independent applied research and technical services institution. The Institute helped develop the state’s $50 billion Coastal Master Plan, with an eye on bringing together science, business and government to find solutions.

Institute scientists—drawn from around the world—are modeling solutions for threatened ecosystems as varied as Vietnam’s Mekong Delta, the North Atlantic coast and the Great Lakes in the Upper Midwest. Recently the Institute teamed with Deltares from the Netherlands to develop a river-modeling tool that uses real-time weather data to forecast flooding impact for schools, hospitals and other structures days ahead of a storm. “What we learn from our research can be applied in so many places,” says Institute President and CEO Justin Ehrenwerth.

No matter the project, Ehrenwerth says the Institute uses science to help develop water strategies where the environment and economy are intrinsically connected, not just locally but globally.

“If we have environmental stressors and challenges that are not addressed, our economy suffers,” Ehrenwerth says. “People ask, ‘What are you all focused on? Are you focused on what’s good for the economy or what’s good for the environment?’ We always say ‘Yes. Exactly.’"

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DON’T BE BLINDED BY YOUR OWN EXPERTISE

Here’s how to broaden your outlook.

by Sydney Finkelstein

EXPERTISE SOUNDS LIKE an unqualified good in professional contexts. Companies associate it with high performance and leadership capability and seek it when hiring for key roles. But in studying top executives over the past decade, I’ve come to understand that expertise can also severely impede performance, in two important ways.

Consider the case of Matthew Broderick, who led the Homeland Security Operations Center when Hurricane
Katrina slammed into New Orleans, in August 2005. A brigadier general with 30 years’ experience running emergency operations, including a stint at the helm of the U.S. Marine Corps National Command Center, he seemed like the perfect person to oversee the response to the storm. “Been there, done that,” he said when describing his qualifications for the role.

Yet Broderick didn’t trigger key elements of the rescue-and-relief efforts until more than a day after Katrina hit. He underestimated the extent of the catastrophe with tragic consequences, owing in part to his expert mindset, which prevented him from appreciating that adept as he was at handling crises in military contexts, he had little experience with natural disasters in the civilian realm. Trained to verify every fact, thereby avoiding decisions made in the “fog of war,” he failed to recognize that in this case speed was more important. He relied too heavily on military intelligence instead of trusting local or state sources. And because of his extensive Marine Corps expertise, he assumed—wrongly—that key federal emergency officials would automatically report information up the chain of command. He seems to have believed that his brilliance in one area would render him competent in another.

This type of overconfidence is one form of what I call the expertise trap. Another is when leaders’ deep knowledge and experience leaves them incurious, blinkered, and vulnerable—even in their own fields. Motorola executives in the 1990s became so obsessed with the Six Sigma continuous improvement methodology, in which they had developed considerable expertise, that they missed the significance of the industry’s shift to digital technologies and fell dramatically behind their competitors. A decade or so later, when Apple first released its iPhone, technology experts were quick to call it a failure, with then Microsoft CEO Steve Ballmer, who’d been steeped in the company’s PC and connected computing business, proclamationg that a device without the traditional QWERTY keypad had no chance of garnering significant market share. More recently, large retailers have struggled to compete with Amazon because senior executives have relied too much on their established expertise as merchandisers and on familiar tactics such as store design, closures, and alterations to the marketing mix. In each of these cases experts assumed that what they knew was right and always would be. As reality shifted, that closed-mindedness led to poor execution and subpar results.

When we begin to identify as experts, our outlook can narrow, both in daily work and in times of crisis. We become reluctant to admit mistakes and failings, thus hindering our development. We distance ourselves from those “beneath” us, making it harder to earn their affection and trust. And as the dynamics of our businesses change, we risk being bypassed or replaced by colleagues on the rise, outsiders adept at learning new things, or artificial intelligence algorithms that can perform rote tasks faster and better than we can. Over time the very expertise that led to our success can leave us feeling unhappy, unsatisfied, and stuck.

Have you fallen into a creative rut? Do you feel “old” and out of touch in your job? Do others seem uncomfortable challenging your assumptions and ideas? Are market developments beginning to take you by surprise? These are just a few of the warning
signs that you’ve fallen into the expertise trap. (For others, see the sidebar on this page.) The solution is clear: Rededicate yourself to learning and growth. Turn back the clock and rediscover just a bit of what the Buddhists call beginner’s mind.

But how? Many executives I encounter tell me they don’t want to be handcuffed by their own expertise, but in the endless stream of meetings, emails, deadlines, and goals, they can’t seem to find the time to learn new skills and approaches. They might attend a training session or two, or try to read the latest business best seller in their spare time, but they remain wedded to their expert mindset and the same old, familiar ideas.

A few extraordinary leaders, however—some of the busiest and most productive—have developed strategies for escaping or avoiding the expertise trap. We can learn from their example.

CHALLENGE YOUR OWN EXPERTISE

Experts cling to their beliefs in large part because their egos are attached to being “smart” or “the best” in their area of focus. To break this pattern, untether yourself from that identity, cultivate more modesty, and remind yourself of your intellectual limitations.

Check your ego. Do you sometimes overshadow others so that you can look good? Do you dictate solutions to team members rather than rely on their capabilities? Do you put pressure on yourself to always appear “right”? How much pride do you take in the companywide accolades, the conference invitations, the industry awards?

If you are excessively gratified by the status that comes with your hard-won knowledge, try grounding yourself a little. Michael Bloomberg famously eschewed a lavish private office at his media company for a small, unremarkable cubicle. IKEA founder Ingvar Kamprad likewise lived simply, traveling inexpensively and driving an old car. Ian Cook, formerly Colgate-Palmolive’s CEO and now its executive chairman, made sure to visit the locker room at plants and facilities to find out what was really going on. Some executives I’ve worked with also forgo their reserved parking spots and park in the back lot so that they can ride the shuttle with rank-and-file employees. They spotlight others’ accomplishments at meetings and industry events and resist the urge to take credit for every success. They also spend time listening to team members instead of telling them what to do.

Methodically revisit your assumptions. General Broderick made a number of ill-advised assumptions in his initial response to Katrina. You can avoid similar errors by regularly surfacing and testing your ingrained ideas. At the start of a new project or assignment, jot down three or more “theories” that underpin it. For instance, if your goal is to spur revenue growth by entering a new geographic market, you may be assuming that the market in question is attractive, that your products or services are appropriate for it, that you understand it as well as you do others, and so on. Analyze these assumptions one by one; decide which are valid and which you should discard; and change your strategy or approach accordingly.

One executive I coached, a senior leader in a midsize medical device company, was struggling to build market share, even though her company possessed great technology. When I asked her to do this exercise, she responded, “Medical specialists are the key gatekeepers. Our largest competitors have locked up relationships with the largest hospital systems. Our technology is the best on the market.” When she analyzed those statements, she realized that although the specialists were gatekeepers, the more entrepreneurial among them might be open to working with new partners. And her company could support doctors who sought to break away from the big hospital systems and form their own, independent clinics. This thinking allowed her to...
bust out of the expertise trap and lead her company to compete in a nontraditional way, with excellent results.

**SEEK OUT FRESH IDEAS**

Learning requires exposure to novelty. But when you’re an expert, it’s easy to become intellectually cloistered. Others don’t or can’t challenge you as often as they used to, and your authority or status can insulate you from pressure to learn and grow. Practiced regularly, the following exercises will introduce you to more diverse perspectives without detracting from other priorities.

**Look to teammates as teachers.** Set aside a few minutes every month to reflect on the most important lessons or insights you gleaned from your team members, especially those whose expertise is less than or different from yours. Ask them open-ended questions to trigger their thoughts and encourage them to challenge your thinking and give you feedback. Then make certain that you take their comments seriously. Reward, rather than dismiss or criticize, those who speak up. Aron Ain, the CEO of the software company Kronos, has described his habit of walking around the office to kibitz or hold impromptu focus groups with employees at all levels of his organization to get their opinions on pressing business issues and glean new insights.

Another tactic is to create opportunities for junior colleagues to present on topics or issues that they find important but that you and other senior leaders aren’t currently considering. These talks not only provide a great growth opportunity for younger people but also build your awareness of trends, technologies, or conditions relevant to your market. Kevin Cox took this approach in 2016, when he was the chief human resources officer at American Express: He asked some of the company’s young high performers to participate in a special three-day ideation session and then present their best proposals for the business to senior leaders. But such events need not be so structured. The hedge fund legend Julian Robertson was known for holding informal sessions in which his junior analysts had a chance to argue for their ideas in front of their peers. Although he regularly pushed back, everyone understood and appreciated the spirit of lively debate he was trying to inculcate.

**Tap new sources of talent.** Experts become creatively stuck and unable to learn because they surround themselves with people who look and sound just like them. The solution, of course, is to hire people with different functional, industry, or cultural backgrounds. Bill Walsh, the legendary San Francisco 49ers head coach, is venerated in the National Football League for hiring African-American assistant coaches and for creating an internship program that allowed the league to benefit from this formerly untapped talent pool. When Boston-based Eastern Bank set up an innovation lab in 2014, it brought in a category of worker previously unseen in its peer group of financial institutions: young creative types in jeans and flip-flops.

Think about your own team, company, and industry. Are any forms of diversity—ethnic, experiential, or other—unrepresented? What unique ideas or perspectives might your workplace gain from people with the missing background? Try recruiting some of them through atypical channels and then onboarding them with a light touch to retain their originality and curiosity. If you’re not in a position to hire, seek out new voices at conferences or in your community, engage them in conversation, and bring them into your circle.
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Add a role model or a learning buddy. Marcus Samuelsson, the Ethiopian-Swedish executive chef at New York’s acclaimed Red Rooster, looks to peers young and old for the inspiration to keep learning. One of them, Samuelsson says, is Leah Chase, a New Orleans chef in her nineties, who’s “still questioning things with this same sense of excitement.” Whom can you look to in the same way? Is anyone at your company or in your industry unusually dedicated to creativity and growth? Look up that person, follow her activities, and ask if you can check in regularly to compare ideas. What is she thinking about or reading? What does she do to broaden her horizons and stay current?

You can also cultivate “learning buddies”—colleagues who challenge your thinking and with whom you bounce around new ideas. The CEO of Scripps Health, Chris Van Gorder, consults with a group of “loyal friends” inside and outside the organization who he knows will provide “honest and sometimes tough feedback about my performance.” The next time you’re at an executive development program with participants from other businesses, make it a priority to connect with one or two people who might act as sounding boards for you.

EMBRACE EXPERIMENTALISM

Leaders and managers stuck in the expertise trap don’t just blind themselves to new ideas—they stop experimenting and taking risks, which ultimately leads to their downfall, because they’re seldom learning anything new. It’s important to push the limits of your comfort zone, even if there’s a danger you’ll fall on your face.

Pose frequent creative challenges for yourself. Don’t wait for others to spur you to experiment. Challenge yourself to break new ground by welcoming any unfamiliar or unusual assignments you get and treating them as “science experiments.” Give yourself permission to set aside established rules and try different ways of accomplishing tasks. Doing things differently may not necessarily take longer (and may even lead to new efficiencies), but it’s still worth asking your boss for leeway, pointing out that you’re actively experimenting and taking some risks for the team’s benefit. Resist the urge to say no to novelty.

Challenging yourself with new pursuits outside work helps as well. Many successful leaders maintain creative hobbies as a way of staying fresh and “young” and bringing that mindset back to the office. Mark Zuckerberg reportedly taught himself a new language—Mandarin Chinese. David Solomon, the CEO of Goldman Sachs, makes a hobby of deejaying at Manhattan nightspots. The former Microsoft executive Nathan Myhrvold writes cookbooks.

Learn from mistakes. Many expert managers downplay or ignore their own slipups, perhaps to protect their elevated view of their own capabilities. The outstanding leaders I’ve studied know that mistakes are to be acknowledged, not swept under the rug—especially when they themselves make them. How self-aware are you in this respect? Set aside time each month to think about the errors you made, big and small. Do you notice any patterns? Were you misaligned with your team? Did you rush to judgment when making a decision? Did any mistakes result from experiments you were trying? If so, what lessons can you capture? And what new experiments might you try to improve your performance?

Don’t be afraid to go public with the fruits of this exercise. Hold quarterly “mistake” meetings at which you describe the biggest error you made in recent months and what you learned. Then invite team members to do the same. The Indian industrial magnate Ratan Tata has tried to institutionalize this practice by presiding over an annual award called Dare to Try, which recognizes employees for pursuing worthy but unsuccessful projects.

EXCEPTIONAL LEADERS KNOW that learning isn’t ever “finished”—it must be a lifelong pursuit, as humbling as it is joyful. Their greatest fear isn’t that their expertise and authority will be challenged but, rather, that they’ll become complacent. Happily, we all have the power to meld learning into the very substance of our work.

Prevalent and dangerous as the expertise trap is, we can escape it—or avoid it entirely—by rebalancing our professional identities, checking our assumptions, listening to teammates, engaging different voices, finding new role models, challenging ourselves with new pursuits, and learning from our mistakes. We can cultivate a beginner’s mind to go along with our expert perspective, pushing ourselves to new levels of creativity and performance. 🎨 HBR Reprint R1903L

SYDNEY FINKELSTEIN, the Steven Roth Professor of Management at Dartmouth’s Tuck School and the author of The Superbosses Playbook (Penguin Portfolio, 2019), hosts The Sydcast, a new podcast.
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If Jackson Pierce was honest with himself, he hadn’t been a shoo-in for the leadership program. He was definitely a high performer, but since salespeople were often evaluated on numbers, it was obvious to everyone that he wasn’t in the top tier. Still, he was excited when his boss told him that he’d be part of the 2019 cohort of high potentials who were expected to go far at Coltra, a global beverage company.

When he got to the conference room where the group was to participate in a kickoff conference call with the CEO, Jackson was happy to see Rainer Wolfson. Rainer was good at everything he did—whether it was selling the company’s least popular beverage line or just making people feel welcome. He’d transferred to the Houston office from Coltra’s Munich outpost three years earlier.

“I was hoping you’d be here,” Rainer said.

Jackson hit “Mute” on the speakerphone and started to joke around with his colleague. “How are we going to manage this program on top of everything else we’ve got going on?” he said. “I can barely answer all my emails these days.”

“We’ll manage, don’t you think?” Rainer said sincerely. “It sounds like a cool opportunity.”

“Of course it is. It just seems the better you are, the more work they give you. Do you know how they chose people for this program?”

By J. Neil Bearden

CASE STUDY: WAS THAT HARASSMENT?
A salesperson wonders how to respond to a colleague’s joke.
anyway?” Nearly 50 salespeople from offices around the world had been selected for the program, and although the criteria weren’t explicit, Jackson assumed that sales numbers were a big factor. “It makes sense that you’re here, but a lot of us didn’t hit our targets last quarter.”

“Those targets were crazy, though,” Rainer said reassuringly. “I don’t know how they set them, but barely anyone made them.”

“You did.”

Rainer smiled uncomfortably. “And Ying did,” Jackson said. “She’s never missed—not a single quarter.”

Rainer nodded. “She did this program last year.”

“Who else are we waiting for?”

“Teaira,” Rainer said.

“Right—she’s been crushing it recently,” Jackson said, a little ruefully. His numbers hadn’t been as good.

“Maybe they want to get you into leadership because you’re not good at sales,” Rainer said, giving him a friendly punch on the shoulder.

Jackson laughed. “If that’s true, why did you get picked? They’d be better off keeping you in sales forever.”

“It must’ve been my good looks,” Rainer said.

“Yeah, right.” Just then Teaira came in, looking at the clock. The call was set to start any minute.

“Hey,” Rainer said, leaning in to take the Polycom off mute.

“I hope you’re here because of your good looks, too, Teaira.” Jackson had said it jokingly, but the other two didn’t smile.

**Rainer**

Rainer immediately felt a knot in his stomach. He could see the expression on Teaira’s face, and she wasn’t happy. Maybe it was more a look of confusion than anything else, but then again, maybe it wasn’t. She opened her mouth as if she was about to say something and then stopped. The three of them shifted in their seats as Peter Mackenzie, their CEO, started his introduction.

Rainer loved Coltra. Like many others on the sales team, he’d joined the company right out of university and had been there ever since, except for a brief stint to get his MBA at ESMT Berlin. He believed in the company’s fruit- and seltzer-based products and loved the culture. Sure, he had complaints about certain decisions the senior leaders made, but ultimately he knew he didn’t want to work anywhere else. The company had treated him well and given him the opportunity to live overseas for a few years. Houston wouldn’t have been his first choice, but it had the strongest sales team of any of the U.S. offices, so the move was a no-brainer.

In the conference room, he was having trouble listening. He kept looking back and forth between Teaira and Jackson, trying to figure out what had just happened. But words kept popping into his head: “Harassment.” “Me too.” “Bystander.”

Was that what just happened here? he wondered. Was that harassment?

Peter’s voice on the Polycom took him back to an all-hands meeting a year earlier, when the CEO had announced the company’s zero-tolerance policy toward sexual misconduct and charged everyone with making Coltra a safe place to work. All the employees had gone through sexual harassment training. Lots of people had grumbled about it, but Rainer had taken it seriously. In fact, it had opened his eyes to what it must be like to be a woman at Coltra—or in any work environment. And he’d carefully read several of the studies that the facilitators had handed out about what held women back from promotions in corporate environments. Still, gender parity was pretty decent throughout most of the company. And for several years in a row the top salesperson had been a woman: Ying. Surely Teaira must feel comfortable here, even if guys like Jackson sometimes, without realizing it, said stupid things.

Rainer glanced over at Teaira and saw that she was looking down at the table, frowning. Was she upset? Maybe Jackson’s comment was exactly the kind of thing that would make a woman feel undermined and as if she didn’t belong. His confusion turned to anger. Why had Jackson put him in this position?

The call was scheduled to end at 10:00, but it didn’t wrap up until after 10:15. Jackson scurried out of the room, saying he was late to another meeting. Rainer followed Teaira out and asked if...
she was OK. He assumed she'd know what he was alluding to, but she just said, “I’m swamped. This program sounds great, but it’s a lot of extra work.”

Rainer tried to reassure her: “I guess it will pay off in the long term for our careers.”

Teaira smiled weakly. He believed what he’d just said. But was it true for Teaira, too?

SUZANNE

Suzanne Bibb was surprised to see Rainer Wolfson’s name in her in-box. He was one of those employees who rarely asked for anything special and never caused trouble—just got promotions and raises and commendations. She told him to come by whenever he wanted, and he did, later that afternoon. Right away it was clear that Rainer was upset.

“I wasn’t going to say anything, but I called a friend of mine back in Berlin, and she encouraged me to make a report to HR,” he said.

“A report?” Suzanne asked. Rainer relayed what had happened between Jackson and Teaira. He said that although he knew Jackson had been joking around, continuing some light-hearted ribbing Rainer himself had started, he didn’t want to stand by if Teaira had somehow been offended.

Suzanne couldn’t say that she was surprised. She’d heard comments before about Jackson’s shooting off his mouth and rubbing people the wrong way. But this was different. Insinuating that a woman was selected for a leadership program because of her looks rather than her achievements fell under what the company had labeled “highly offensive” on the spectrum of sexual misconduct. And although it wasn’t “evident misconduct,” or even “egregious,” she knew she had to take it seriously.

She asked Rainer a few follow-up questions and thanked him for coming. “So what happens now?” he asked.

Suzanne explained the company process for handling such accusations. HR had seen an uptick in these kinds of complaints since #MeToo exploded, so she was well versed in the protocol. She and her team had spent a lot of time explaining and re-explaining it, and many of the things brought to their attention weren’t actionable offenses. Still, she always told herself, it was better than having people stay silent.

She told Rainer that she would talk with Teaira and then with Jackson, and their managers would need to be notified.

“Will you tell everyone I reported it?” he asked.

Normally we let the employee filing the complaint decide whether to disclose that he or she was involved, but since you were the only other person there, it will be obvious to Teaira that it was you.”
“Right,” he said. “At first I told myself that it was a small comment and Jackson probably meant no harm. But when I explained it to my friend, it sounded worse. I just don’t want things to get blown out of proportion.”

“None of us want that,” Suzanne said. But she worried that was exactly what might happen.

TEAIRA

When she listened to the voicemail, Teaira’s first thought was: *It’s never good when HR calls you. Raises, promotions, new assignments—all those come through your manager. Bad news comes from HR, especially on the phone.*

She’d seen Suzanne Bibb’s name on group emails, but she’d never spoken to her in person before. Suzanne cut right to the chase: “There’s been a complaint.” She explained that she had heard about Jackson’s comment the day before.

Rainer, Teaira thought. She was annoyed. *Why hadn’t he let her fight her own battles? Why hadn’t he said anything to her first?* Then she remembered the concerned look on his face as they’d walked out of the conference room.

“It really wasn’t a big deal,” Teaira said instinctively, although as soon as she’d spoken, she questioned whether that was true. Jackson had been competing with her since his first day on the job. It wasn’t anything she hadn’t experienced before, at college or in her MBA program or in the office, but he cut her off in meetings and occasionally took credit for her ideas. She’d chalked it up to typical overly competitive male behavior, but she couldn’t say that she trusted Jackson.

Still, it had been an easy thing to brush off. She’d seen Jackson later in the day, and he’d awkwardly tried to explain the comment, telling her it had been a meaningless joke, that she had come into the middle of a conversation, and that it would’ve made more sense if she’d heard what he and Rainer had been talking about before. It was a defense more than an apology, but she’d been on her way to another meeting, so she’d let it go.

“If I do move forward with the complaint?” Teaira asked Suzanne. “Will Jackson get fired?”

“That’s up to you,” Suzanne replied. “But we take complaints like this seriously. And I urge you to do the same. Any comment about an employee’s appearance that makes another person uncomfortable is problematic.”

“What if I do move forward with the complaint?” Teaira asked Suzanne. “Will Jackson get fired?”

“Until we’ve gathered more information, I can’t say what the consequences might be. As you know, we have a zero-tolerance policy. I suspect some people will advocate

8. Researchers have shown that a single sexual harassment claim can dramatically reduce perceptions of fairness in hiring and promotion at that organization.

9. Under such a policy, well-founded complaints of sexual harassment will lead to the perpetrator’s dismissal. Some believe that this is too harsh and will discourage reporting.
firing him—especially if you add your name to the complaint. But there are other, less harsh consequences for unprofessional behavior.”

When Peter had announced the policy, Teaira had been proud that her company was taking a stand. Now, though, she wondered whether such a hard line was really a good thing. People were going to make mistakes, and certainly Jackson’s comment, while maybe mean-spirited, wasn’t a fireable offense. Or was it?

As she walked back to her desk, Teaira’s frustration mounted. She thought about how few senior women Coltra had. The entire C-suite was men except for the chief HR officer. And only one board member was a woman. Were comments like Jackson’s part of the problem? She felt she could handle this kind of joking—but maybe some of her peers couldn’t. And maybe Jackson’s intention—whether subconscious or not—was to demean her.

Then she remembered Rainer’s finger on the mute button. Was it possible that others had heard what Jackson said? If so, why hadn’t anyone else spoken up? And did she have a duty to call out that sort of behavior—especially if others knew about it?

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Teaira shouldn’t brush off the comment.

Perhaps Jackson didn’t mean any harm, but he caused it, and our culture won’t change if people don’t question interactions that may be driven by gender stereotypes and misconceptions. Jackson’s comment falls into a gray area. Rainer’s struggle with how to respond illustrates how difficult it is to know what’s acceptable and what isn’t. Few companies have figured out how to make those lines clear. But the fact that Jackson’s comment wasn’t expressly ill intended doesn’t mean it was innocent. If you swung your arm hard and broke my nose, you’d be responsible even if you hadn’t meant to hurt me. Jackson needs to be respectful.

Should Teaira push forward the complaint against Jackson?

THE EXPERTS RESPOND
of colleagues at work, in both words and actions.

In my experience, sexual harassment is rarely an overt action that you can point to and say, “That was wrong.” Often the subject and observers aren’t sure what happened. As products of our society, we may be playing into stereotypes without realizing it. Has Jackson been taught that to get a woman on your side, it helps to flatter her? Has Teaira learned to react positively to such comments lest she be perceived as too serious or unfriendly, which could hurt her career?

Unfortunately, I was in a similar but more severe situation, and it took me a while to notice. I worked at a company I loved, where I’d been promoted three times and felt supported. Five years into my tenure there, a charismatic male executive was brought in to fill a new VP-level position. Soon after, he asked to collaborate on events I was running. He complimented my work and listened to my ideas. He said that senior people in my department didn’t think I was ready for the next level and suggested that I come work in his group. We started to attend events together, and although he would occasionally touch my arm or ask me about my personal life, I didn’t think much about it, because I’d grown up in a warm, open Hispanic culture.

One night, after a customer event, he asked me to debrief over dinner. He encouraged me to drink even though I declined, and he talked a lot about his sex life, asked about my marriage, told me which colleagues he wanted to be sexually involved with. I knew the conversation wasn’t OK, but I told myself it didn’t matter because I never felt unsafe. The next day, I suddenly realized that I was being manipulated, seduced, and condescended to. I felt sick that I hadn’t seen his behavior for what it was. I told my immediate manager everything that had happened, and he quickly involved legal and HR. My colleague was fired within a week.

I don’t think Jackson should necessarily be fired, but he should learn to speak and act more thoughtfully. I do worry about the fallout for Teaira’s career—as I continue to worry about mine whenever I share my story. But that is precisely why we must speak up: No one should suffer for doing the right thing, and offenders shouldn’t hurt our integrity any more than they already have. We all need to rethink how we interact with one another at work.

Unfortunately, given Coltra’s zero-tolerance policy, Teaira has two bad options. Dropping the complaint may leave an important issue unaddressed. Pushing it forward may result in outsize punishment for Jackson and damaged relationships for her. Until she knows what she wants—and fully understands her options—she shouldn’t file an official report.

It’s unclear what Teaira does want: For Jackson to learn to be more accountable for his actions? For Coltra to work harder to create a more inclusive culture, rather than focusing on policy? For the risk of unfair blowback to be minimized for her colleague?

Although Rainer was trying to do the right thing, he should have given Teaira a heads-up and talked through these issues with her first. He should have said he felt he had to report the incident (if the company has a mandated reporting policy). Unknowingly, he took her power and choice away and left her blindsided.

Given her status and performance at Coltra, Teaira could use this as an opportunity to pressure her company for more training. Bystander intervention and feedback might be a good place to start. But she must be clear about the potential consequences first.

While seemingly supportive, zero-tolerance policies are problematic. Fearing too-harsh punishment for their colleagues, people are less likely to report minor offenses or warning signs—an important indicator of cultural challenges and knowledge gaps. And these policies limit people who experience harassment to high-stakes, one-size-fits-all solutions, which overlook the very real financial, social, and professional obstacles to reporting.

Once, at a benefit dinner, a wealthy donor said to me, “If I were 20 years younger or you were 20 years older, I’d chase you around the table right now.” We all laughed, and I responded with something like “You wish.” I didn’t feel unsafe in the moment, and, like Teaira, I felt I could handle myself. I better understand today that such comments contribute to a culture that makes people vulnerable and allows harassers to get away with even worse behavior. Still, I wouldn’t have wanted human resources to barge in like a police officer. That would have felt infantilizing and, worse, might have made it harder for me to do my job.

What I wanted was for one of his wealthy peers to call him out so that I didn’t have to do the work. Or for my team to have had the opportunity to workshop it so that we could all get better at handling off-color jokes. There’s a vast middle ground between expecting people to fend off egregious harassment themselves and calling in the riot police to respond to a joke. Behavior exists on a spectrum; so should our systems of discipline and accountability.

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Harvard Business Review
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Mozart was a celestial genius, but he struggled like a mere mortal during his teens and early twenties. Though already a prolific composer, he had to work as an organist and concertmaster in his native Salzburg to make ends meet. Underpaid, unfulfilled, and hemmed in by his frustratingly average gigs, he felt a burning desire to devote more time and energy to his art. So after a period of doubt and deliberation, that’s exactly what he did. He quit his job, set up shop in Vienna, and embarked on what turned out to be the most productive and creative period of his life.

Even if you never hope to reach Mozart’s level of mastery, you may relate to his need to break free from convention. Maybe you feel as if your job is like painting by numbers. Maybe you’ve done everything right—excelled at school, worked hard, and landed a good, high-paying job—but you’re tired of being just like everyone else. Maybe you yearn to achieve something that is unmistakably you.

If you aspire to do more personally fulfilling work—say, to found a start-up or turn a hobby into a full-fledged career—drafting a plan of action can be daunting. Even so, a few newly released books suggest that it’s entirely possible to develop the wherewithal, nerve, and clarity of purpose to create your own version of Mozart’s Don Giovanni.

In Aristotle’s Way, the classicist Edith Hall describes the ancient philosopher’s belief that becoming conscious of our skills, talents, and aptitudes (dynamis) and then using our resources to make the most of them (energeia) is the foundation of living a good life. If you’re not working toward reaching your unique potential—as Mozart did—it’s normal to feel dissatisfied. If that’s the case, says Aristotle, it’s your duty to make things right. The philosopher John Kaag, author of Hiking with Nietzsche, agrees. “The self does not lie passively in wait for us to discover it,” he writes. “Selfhood is made in the active, ongoing process, in the German verb werden, ‘to become.’”
What, then, is holding you back? Rich Karlgaard, the publisher of *Forbes* magazine and author of *Late Bloomers*, argues that our culture’s obsession with early achievement dissuades us from pursuing our passions. Instead of having varied interests, studying widely, and taking our time— essentials for self-discovery—we’re encouraged to ace tests, become specialists right away, and pursue safe, stable, and lucrative careers. As a result, most of us end up choosing professional excellence over personal fulfillment, and often we lose ourselves in the process.

According to the journalist David Epstein, author of *Range*, our obsession with specialization has infiltrated the ranks of youth sports coaches and helicopter parents, and it defies logic. Unless your job requires repetitive, routine tasks, being a specialist isn’t an asset. Having a wide range of skills and experiences is more beneficial because it allows you to be nimble and creative. The authors of *Dark Horse*, Todd Rose and Ogi Ogas of Harvard’s School of Education, noticed the negative effects of early specialization in a study of people who came out of nowhere to achieve great success. “Despite feeling bored or frustrated, underutilized or overwhelmed,” the two write, “most dark horses reluctantly plodded along for years before finally coming to the realization that they were not living a fulfilling life.” Then, after a period of restless, quiet ambition, these seemingly average people—administrative assistants, engineers, IT managers—were able to transform their “cravings, predilections, and fascinations” into successful careers as master sommeliers, lifestyle entrepreneurs, and celebrated craftsmen.

To prompt this kind of revolution in your own life, Rose and Ogas suggest creating a micromotive, or a goal tailored to an extremely specific activity that truly inspires you. For example, when Korinne Belock left her job as a political aide to form Urban Simplicity, a firm that declutters and redesigns homes and offices, her micromotive was “organizing physical space.” Note that she didn’t say “doing something creative” or “starting my own business.” Those declarations are too general and fuzzy to be acted on. Instead, she identified a task that sparked within her an outsized amount of curiosity and pleasure and used it as her guide.

As you move forward, there are a few things to keep in mind. First and foremost, it’s never too late to “become” yourself. Aristotle, for example, didn’t fully devote himself to writing and philosophy until he was nearly 50. There are also benefits to taking a long, winding path to self-fulfillment. Remember that age typically brings wisdom, resilience, humility, self-knowledge, and creativity. This is one reason the average age of founders of high-growth start-ups is 45. Citing the work of developmental psychologist Erik Erikson, Karlgaard writes, the “ages 40 to 64 constitute a unique period where one’s creativity and experience combine with a universal human longing to make our lives matter.”

That said, once you’ve decided to embark on the journey, it may take years, if not longer, to reach your destination. But as research has shown, small daily changes can have a compound effect and slowly but surely lead you closer to the person you think you ought to be.

If you ever get stuck, think of Joanne, a talented and creative woman who bounced from job to job throughout her twenties, working as a researcher, secretary, and English-as-a-second-language teacher. Optionless and clinically depressed, she felt like a total failure. But she took that feeling of despair and used it to her advantage. Since she hadn’t succeeded in following a standard path, she felt liberated to do what she’d always wanted to do: write fantasy novels for children. As she would later recount, “I stopped pretending to myself that I was anything other than what I was.”

You’ve probably heard of her. Her pen name is J.K. Rowling.

Now get to work.

KEVIN EVERS is an associate editor at HBR.
YOUR APPROACH TO HIRING IS ALL WRONG

Businesses have never done as much hiring as they do today and have never done a worse job of it, says Peter Cappelli of Wharton. Much of the process is outsourced to companies such as Randstad, Manpower, and Adecco, which in turn use subcontractors to scour LinkedIn and social media for potential candidates. When applications come—always electronically—software sifts through them for key words that hiring managers want to see. Vendors offer an array of smart-sounding tools that claim to predict who will be a good hire—but whether they produce satisfactory results is unknown. Cappelli explores what’s wrong with today’s recruiting and hiring and how to fix it.

DATA SCIENCE CAN’T FIX HIRING (YET)

The rise of data science–driven algorithms to find and assess job candidates is promising because they are not constrained by prior theory and results, but worrying because data scientists seem to know so little about the context of employment, says Cappelli.

EXPANDING THE POOL

Goldman Sachs has revamped its process for entry-level recruiting to include first-round interviews by asynchronous video, doubling the percentage of applicants who get a first-round interview and leveling the playing field between graduates of various colleges. In second-round face-to-face meetings, interviews are now structured and standardized. The result, says Dane E. Holmes, the global head of human capital management, is a fairer, more inclusive, and more efficient process—and the firm’s most diverse entry-level class ever.
A decade of research into top executives shows that expertise can actually severely impede performance, in two important ways. The first is overconfidence: believing that brilliance in one area leads to competence in another. The second is when deep knowledge and experience leave leaders incurious, blinkered, and vulnerable—even in their own fields. The solution is clear: Rededicate yourself to learning and growth, and rediscover just a bit of what the Buddhists call beginner’s mind. Strategies that the most successful executives use to do so fall into three buckets: challenging their own expertise, seeking out fresh ideas, and embracing experimentalism.

The solution is clear: Rededicate yourself to learning and growth, and rediscover just a bit of what the Buddhists call beginner’s mind. Strategies that the most successful executives use to do so fall into three buckets: challenging their own expertise, seeking out fresh ideas, and embracing experimentalism.
THE AGE OF CONTINUOUS CONNECTION
Nicolaj Siggelkow and Christian Terwiesch | page 64

Thanks to technologies that enable constant, customized interactions, businesses are building deeper ties with their customers. Firms can now address customer needs the moment they arise—and sometimes even earlier. By employing connected strategies, companies are dramatically improving their customers’ experiences, boosting their own operational efficiencies, and gaining competitive advantage.

In their research the authors have identified four effective connected strategies: Respond to desire, which entails filling customers’ requests quickly and seamlessly; curated offering, or presenting personally tailored recommendations; coach behavior, or reminding people of needs and goals and nudging them to act; and automatic execution, or anticipating what people want and delivering it without even being asked.

To get the most out of these strategies, firms must understand customers’ privacy preferences, build new capabilities, and use the learning from repeated interactions to shape future ones.

HBR Reprint R1903C

WHAT WESTERN MARKETERS CAN LEARN FROM CHINA
Kimberly A. Whitter | page 74

For decades, Western executives of multinational brands seeking to expand globally have operated under a simple premise: Marketing content and channel selection should be customized to local markets, but Western marketing principles are universal. Firms are particularly quick to export media and ad strategies to developing markets, where advertising and media are more recent developments.

Meanwhile, Chinese marketers have developed a unique approach tailored to China’s mobile-first consumer. It relies on the creation of shareable, viral content and the presence of dominant, channel-straddling media giants. It is faster and cheaper and often more effective than the Western marketing paradigm. It also is more embracing of risk. For companies that hope to enter China or grow existing operations there, understanding the Chinese marketing mindset will be essential to achieving success.

This article examines the adjustments Western companies must make to succeed in China—and around the world.

HBR Reprint R1903D

FUTURE-PROOF YOUR CLIMATE STRATEGY
Joseph E. Aldy and Gianfranco Gianfrate | page 96

Many companies are protecting themselves against “climate risk”—the damage they might suffer from heat waves, flooding, and other effects of global climate change. But the smartest companies are also paying attention to “carbon risk”—the costs they will have to bear as governmental policies extract a growing price for CO₂ emissions. These firms are setting internal carbon prices (ICPs), putting a monetary value on their own emissions to better prepare for success in a lower-carbon world.

This article explains the process firms go through: measuring their direct and indirect emissions, ascertaining current external carbon prices (both explicit and implicit), predicting future ones, deciding what time horizons their ICPs should cover, and considering emissions-reduction goals. The authors then discuss how internal carbon pricing is helping companies make decisions about new investments, manage financial and regulatory risks, and develop long-term strategy.

HBR Reprint R1903E

HBR Reprint R1903F

HOW TO SURVIVE A RECESSION AND THRIVE AFTERWARD
Walter Frick | page 98

According to an analysis led by Ranjay Gulati, during the recessions of 1980, 1990, and 2000, 17% of the 4,700 public companies studied fared very badly: They went bankrupt, went private, or were acquired. But just as striking, 9% of the companies flourished, outperforming competitors by at least 10% in sales and profits growth.

A more recent analysis by Bain using data from the Great Recession reinforced that finding, showing that the top 10% of companies studied didn’t merely survive; their earnings climbed steadily throughout the downturn and continued to rise afterward.

Among the companies that stagnated in the aftermath of the Great Recession, few had made contingency plans, according to the Bain report. “When the downturn hit, they switched to survival mode, making deep cuts and reacting defensively.”

How should firms prepare for a recession, and what should they do when one hits? This research roundup examines advice in four areas: debt, decision making, workforce management, and digital transformation.
Environmental, social, and governance (ESG) issues have traditionally been of secondary concern to investors. But in recent years, institutional investors and pension funds have grown too large to diversify away from systemic risks, forcing them to consider the environmental and social impact of their portfolios.

Analysis of interviews with 70 executives in 43 global institutional investing firms suggests that ESG is now a priority for these leaders and that corporations will soon be held accountable by shareholders for their ESG performance.

To respond to this shift in focus, companies must publish a statement of purpose, provide investors with integrated financial and ESG reports, increase the involvement of middle managers in ESG issues, invest in robust IT systems, and improve internal systems for measuring and reporting ESG and impact performance information.

In 2018 the Project on Managing the Future of Work at HBS teamed up with the BCG Henderson Institute to survey 6,500 business leaders and 11,000 workers about the various forces reshaping the nature of work. The responses revealed a surprising gap: While the executives were pessimistic about their employees’ ability to acquire the capabilities needed to thrive in an era of rapid change, the employees were not. The employees were actually focused on the benefits that change would bring and far more eager to learn new skills than their leaders gave them credit for.

This gap highlights a vast reserve of talent and energy firms can tap into: their own workers. How can a company do that? By creating a learning culture; engaging employees in the transition instead of shepherding them through it; developing an internal talent pipeline for the entire workforce; and collaborating with outside partners to build the right skills in the labor pools it hires from.

Today the most promising innovation and business opportunities require collaboration among functions, offices, and organizations. To realize them, companies must break down silos and get people working together across boundaries. But that’s a challenge for many leaders. Employees naturally default to focusing on vertical relationships, and formal restructuring is costly, confusing, and slow. What, then, is the solution? Engaging in four activities that promote horizontal teamwork: (1) developing cultural brokers, or employees who excel at connecting across divides; (2) encouraging people to ask questions in an open-ended, unbiased way that genuinely explores others’ thinking; (3) getting people to actively take other points of view; and (4) broadening employees’ vision to include more-distant networks.

By supporting these activities, leaders can help employees connect with new pools of expertise and learn from and relate to people who think very differently from them. And when that happens, interface collaboration will become second nature.
HBR: What made you want to become a priest?
CURRY: By the time I went to college, I knew that I wanted to do something that had a positive impact on people and society. I considered public service, having worked on Bobby Kennedy’s political campaigns as a kid. But my dad was a priest, and his father was a Baptist preacher—that was in my blood. One day I read Dr. Martin Luther King Jr. for a course, and it made me realize that there was the potential to do real social good from within the Christian religious tradition.

When an issue is divisive, how do you go about getting buy-in from people on both sides?
If there’s a point of commonality, affirm that first. I’ve seen this work in discussions around same-sex marriage with leaders of the Anglican Communion, the larger global church with which we’re affiliated. My first meeting with them was right after we in the Episcopal Church had changed our rules to allow for same-sex marriage, which was seen as deeply controversial. But I explained that the decision came from our shared faith: “I believe we are following the teachings of Jesus, who told us to love our neighbors as ourselves.” Now, we didn’t all sing “Kumbaya” after that, but it was enough to contain the difference.

How do you stay steady in emotionally charged situations?
Just get honest with yourself and acknowledge that you’re upset. It’s the stuff we’re not aware of in ourselves that has the power to control us. Then consider what you are upset about. The Buddhists are onto something here: The Buddha taught that self-centeredness is the root of all human-created dilemmas. If you can overcome the self, you can overcome these conflicts. When I get over myself, I can then think responsively about the situation instead.

You lead an organization with 1.7 million members (including me). Did you ever have doubts about taking on that role?
Anybody assuming a new leadership position would have to be a fool not to go through moments of self-doubt. I still have them. But I’ve never had a doubt about the reason I do what I do. My mission is to help people find their way to a loving relationship with God and with each other. If you’re clear on your cause, you can navigate anything else thrown at you. Years ago, I had a conversation with an older African-American gentleman who was shining my shoes. His wife had died, and he was raising his son, who was smart and had been accepted to a prestigious university. I remember him saying, “I get tired of shining shoes: It’s hard work, and you’re bent over all day long. But I’ll shine shoes till Jesus comes if it’ll get my boy through college.”

What advice do you have for other minority leaders?
Stay on the mission that initially called you. I happen to be African-American. I happen to be male. I happen to be married. But the driver for me in my job as bishop is the mission I see myself on.
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