Arceau L'heure de la lune
Time flies to the moon

Harvard Business Review

HBR.ORG
November–December 2020

The Work from Anywhere Future

Lessons from organizations that have made the transition and flourished


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WE LOVE WHEN
CLOUDS PLAY
NICE TOGETHER.
WITH LOVE, CLOUDERA

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Photograph by VICTOR PRADO

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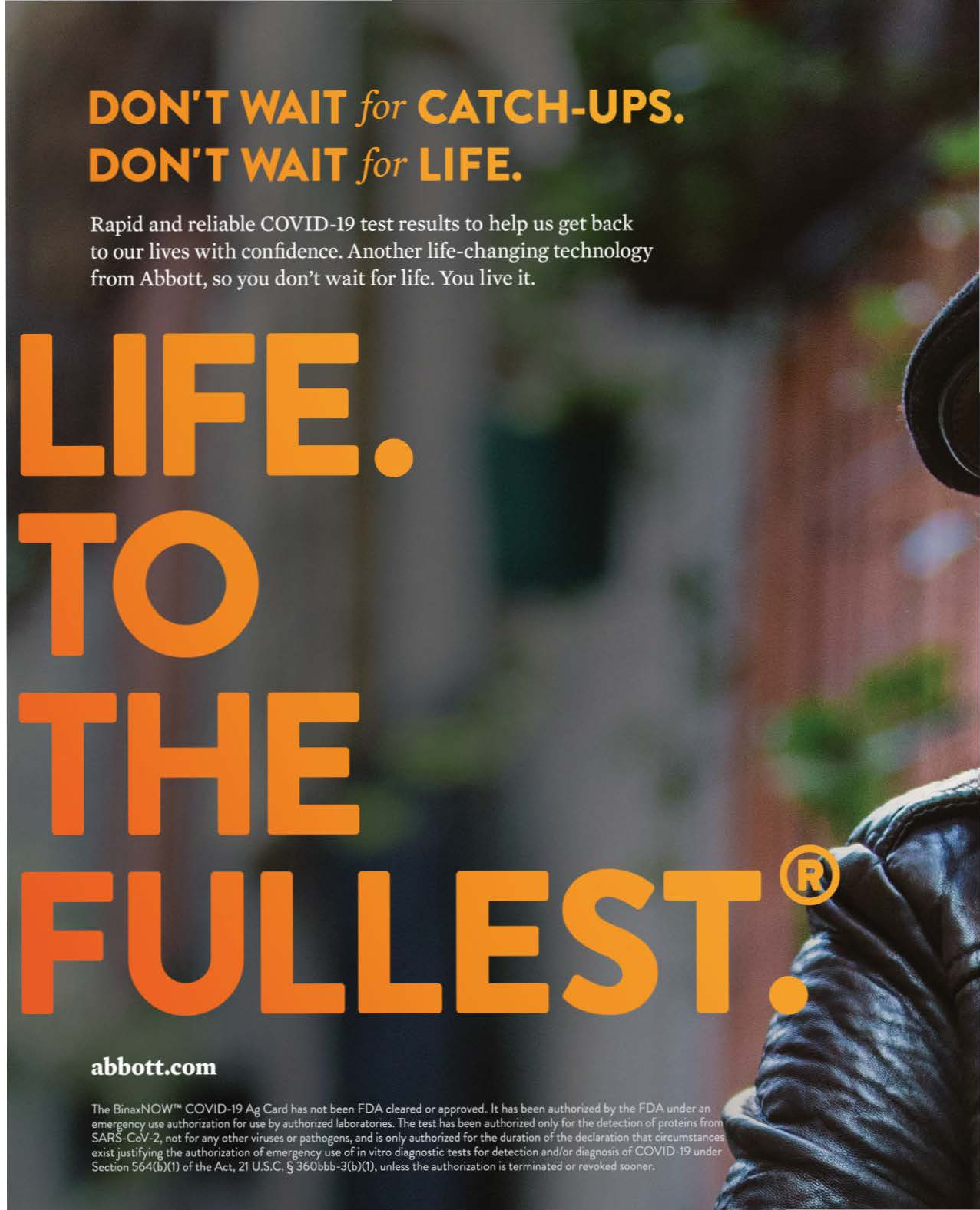
Illustration by **KLAWE RZECZY**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DEPARTMENTS

"My values gave me the grounding to design and lead Iberdrola's green mission."
–JOSÉ IGNACIO SÁNCHEZ GALÁN

Photograph by GIANFRANCO TRIPODO

From the Editor

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Why We've Stopped Ranking CEOs

STARTING IN 2014, HBR published an annual list called the Best-Performing CEOs in the World. The rankings, calculated by measuring financial returns during each CEO's entire tenure and factoring in two assessments of each company's environmental, social, and governance practices, helped drive discussion of how society should measure a business leader's performance. The list was routinely one of the year's most-read articles on HBR.org.

But each year the CEOs on our list were overwhelmingly male and largely white, provoking criticism for a lack of diversity. And each year we explained why this was the case: Most of the S&P 1200 companies we analyzed were led by white male CEOs.

Now, in the midst of a heightened global discourse on racial and gender equity, we have decided to break the cycle. Rather than publish a list that might be seen as celebrating the status quo, we will discontinue the ranking. It's a small step, but we hope it is a meaningful one.

Instead, in the pages that would have contained this year's list, we do what HBR does best: publish articles that focus on research and best practices in management, including those aimed at eliminating gender and racial inequalities in the workplace. One example of this is "Getting Serious About Diversity," by Robin Ely and David Thomas, which reexamines the business case for diversity—something every effective leader needs to understand. I urge you to read it.

ADI IGNATIUS
Editor in chief

Dorinda Elliott

Contributors

Robin Ely has spent many years studying how organizations can benefit from diversity. So she and her coauthor, David Thomas, have grown increasingly alarmed by suggestions that an "add diversity and stir" approach will magically improve financial performance. "People tout a business case for diversity that simply isn't supported by rigorous research and doesn't make a lot of sense," she says. Companies benefit most from diversity when they are willing to dismantle systems of oppression and reinvent workplace culture so that all employees can thrive and reach their full potential.

114 Getting Serious About Diversity

In her research **Tsedale M. Melaku**, a sociologist and a postdoctoral fellow at The Graduate Center, CUNY, examines how the members of marginalized groups pay an inclusion tax in the form of uncompensated, invisible labor in organizations. "Equity in the workplace is an intrinsic responsibility of every organization," she says. "It requires allies to use their privilege and power to offset any additional labor by marginalized groups." In this article Melaku and her coauthors describe strategies that white men can use to help marginalized colleagues advance.

135 Be a Better Ally

An early-career mentor once told **Suzanne Peterson**, an associate professor at Thunderbird School of Global Management, that although she still had a lot to learn, her "style" would carry her until her capabilities caught up. Fascinated by that idea, she began documenting what "presence" consists of in a professional environment. A pattern emerged: When people have a similar skill set, style becomes the differentiator. In this article Peterson and her colleagues at the consulting firm CRA share specific behaviors executives can adopt to project the right style in a variety of contexts.

68 How to Develop Your Leadership Style

Prithwiraj (Raj) Choudhury, an associate professor at Harvard Business School, studies the changing geography of work. Long before Covid-19 forced companies to allow millions of employees to work from home, Choudhury was conducting research on what he calls work-from-anywhere (WFA) organizations. His work proved prescient. "This crisis has opened executives' minds to adopting WFA for all or part of their workforces," he says. In this article he explores its benefits and drawbacks and how to decide whether WFA is right for your organization.

58 Our Work-from-Anywhere Future

Ewelina Karpowiak, whose studio is Klawe Rzeczy, is a Polish illustrator and collage artist based in Lodz. Before pursuing a career as an artist, she studied cultural and media theory, which, she says, informs her work to this day. She is heavily influenced by the Bauhaus movement's principles of design and color theory and the visual style of Russian avant-garde posters. Of her own artistic process Karpowiak says, "I like to play with the meanings and form—and I love seeing how a very rough sketch becomes something big."

78 Reinventing the Leader Selection Process

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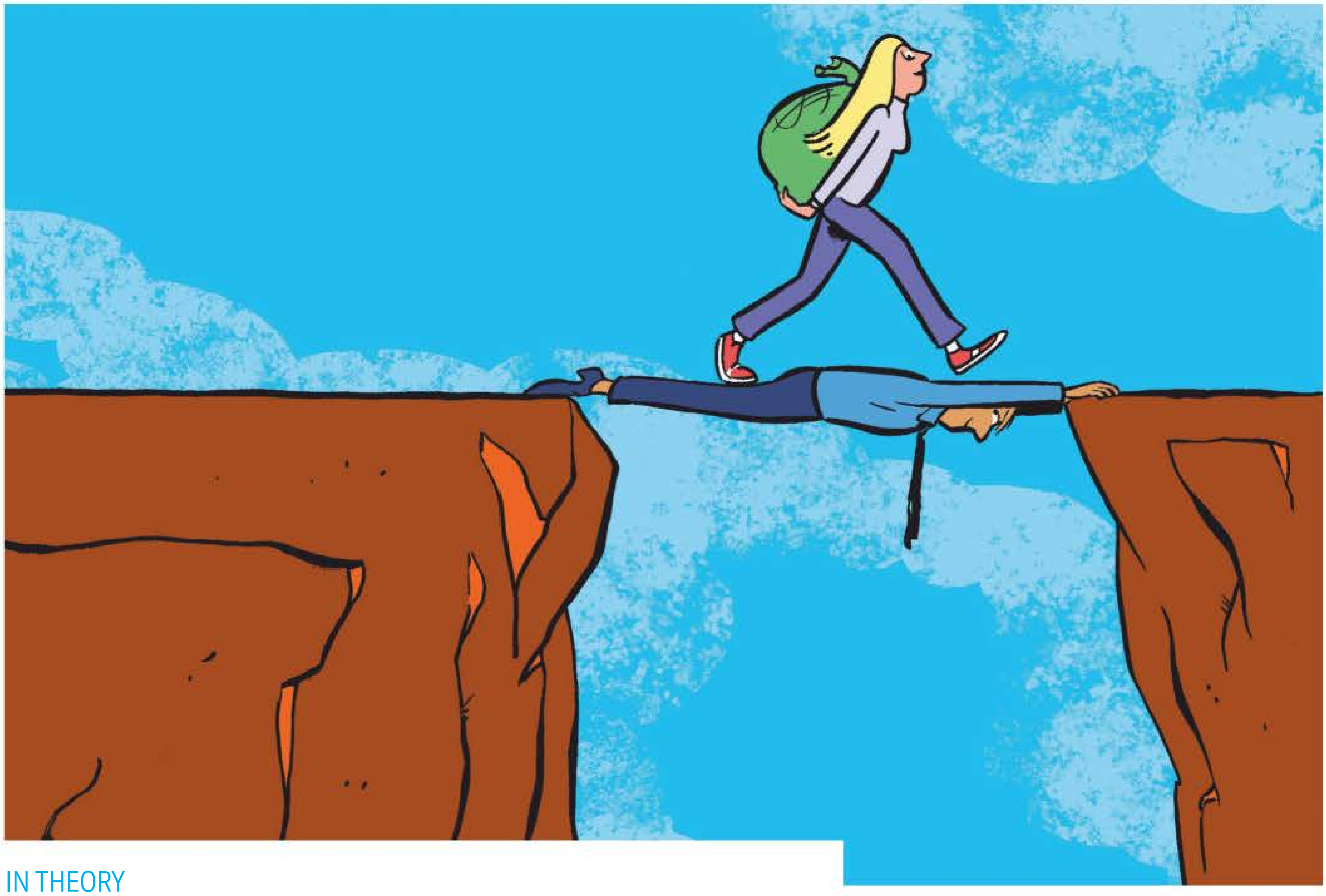


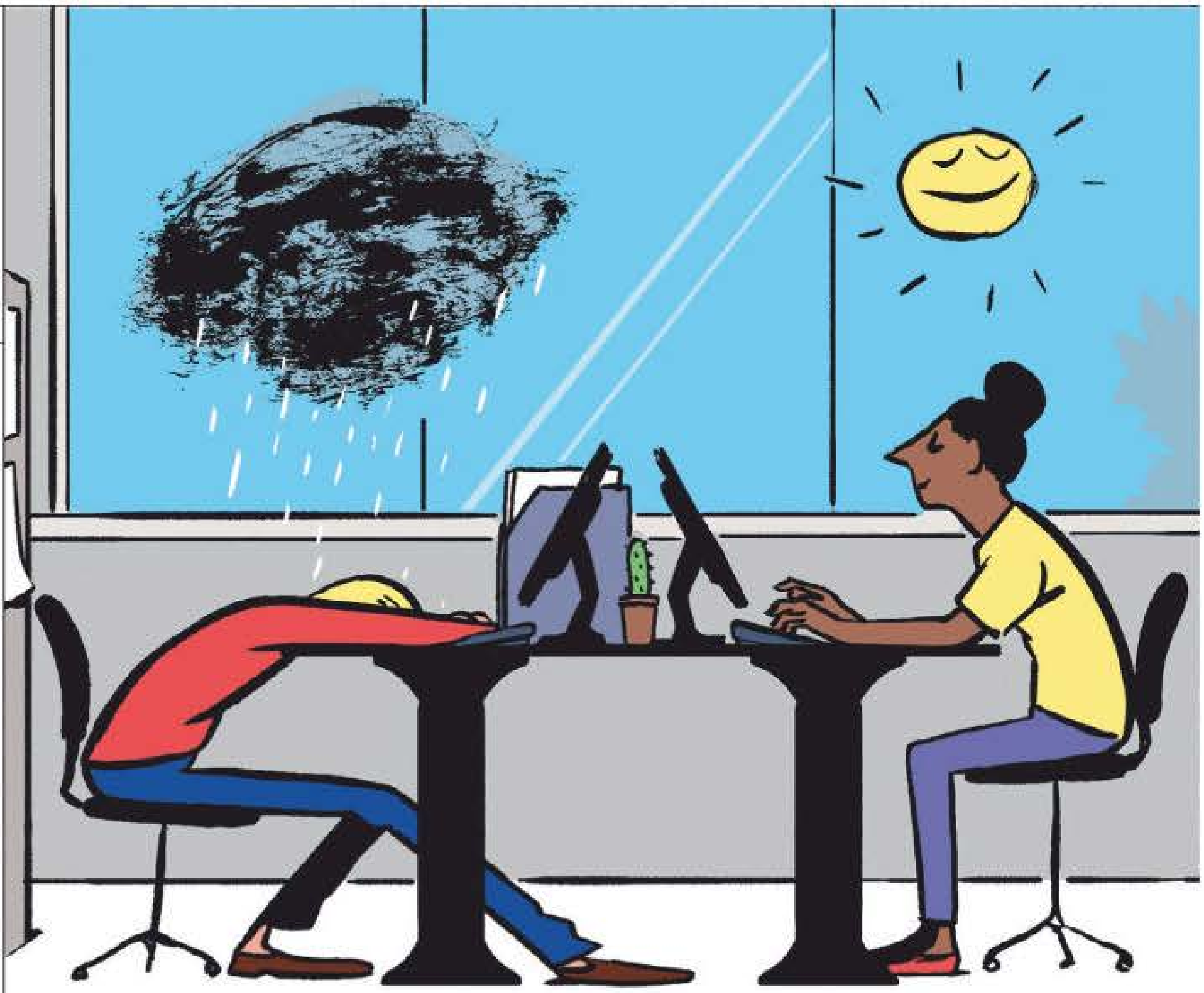
IN THEORY

HELPING LOW-INCOME WORKERS STAY OUT OF DEBT

Employer-sponsored fintech products can enhance financial resilience and inclusion.

STAGNANT WAGES, a rising cost of living, and increasingly irregular schedules routinely force many working Americans onto a financial knife's edge; they're able to pay their usual bills but lack a buffer to handle even small financial shocks. Part of the problem is that most U.S. workers are paid biweekly, and it can take as much as a week for a paycheck to clear, making the wait for compensation even longer. In addition, many workers lack the credit scores to qualify for standard market-rate loans. So to make ends

Illustrations by NISHANT CHOKSI



meet or cover unexpected bills, they often rely on payday loans, auto-title loans, and bank overdrafts—high-cost instruments that may push them further toward financial ruin. Economic downturns, such as today's pandemic-related recession, only increase dependence on these services.

A study conducted at the Harvard Kennedy School explores how innovative fintech products can disrupt this damaging cycle and benefit employees and employers alike. The researchers studied two start-ups that partner with employers to make new financial offerings available as part of employees' benefits packages. PayActiv advances wages that workers have accrued but haven't yet received. Sometimes operating in conjunction with payroll companies such as ADP, it serves employees of FedEx, Pizza Hut, and Wendy's, among others. Salary Finance goes a step further, offering employees low-cost loans that are automatically repaid through paycheck deductions. Based in the UK, it has expanded to the United States, where clients include the United Way and Tesla.

The innovation fueling both business models is the "salary link"—the provider's ability to directly access wages to ensure repayment of advances or loans. PayActiv applies algorithms to time and attendance data supplied by the employer, adjusting for schedules, tips, and so on, to accurately determine how much an employee has earned at any given point between paychecks. "PayActiv essentially takes on zero risk, as it's only advancing earned wages," says Todd Baker, one of the study's coauthors and now a senior fellow at Columbia's business and law schools. The firm charges $5 for each pay period in which the service is used (employers often pick up part or all of the fee).

Salary Finance offers loans to partner company employees as long as they are 18 or older, have worked at the company for a year or more, and make at least $10,000 annually. Rather than rigidly applying third-party credit scores, it uses its own estimation of repayment probability to gauge an employee's ability to afford the requested loan. The interest charged—as of this writing, rates range from 5.9% to 19.9%—does not change if the employee leaves the company; in that case, loan payments are drawn from the borrower's personal bank account designated during the application process. "Salary Finance's exposure is dramatically lowered because its automatic deduction turns an employee's salary into de facto collateral," Baker says. Indeed, the researchers found that the firm had a default rate just a fifth of that which would be predicted by credit-scoring models.

LOWER FEES, BROADER ACCESS, AND INCREASED RETENTION

Do the offerings make a difference to the workers they serve? To find out, Baker and his research partner—Snigdha Kumar, a former Harvard Kennedy School student now working at the fintech start-up Digit—compared the start-ups' fees with those of market equivalents. Proving PayActiv's advantage was straightforward; the $5 fee is well below the typical $35 overdraft fee charged by banks and the $30 most payday lenders charge for a two-week $200 loan.

To evaluate Salary Finance's impact, the researchers first compared the annualized interest rate charged by the firm with those of several personal-loan lenders. Salary Finance's was considerably lower—it averaged just 11.8%, versus 21.9% to 71% among the conventional lenders assessed. But that's only half the story, as an analysis of users in the UK showed. The typical Salary Finance loan goes to borrowers with very bad credit (the equivalent of a U.S. FICO score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of 480 to 500). Americans with such poor ratings usually don't qualify for personal loans; they often have to resort to payday-type loans, whose annualized interest rates generally exceed 200%. Salary Finance also reports the payment history on its loans to credit agencies, enabling "credit-damaged or credit-invisible employees [to] use these products not only to access credit but to eventually reenter the mainstream financial world," Kumar says. "That was our most exciting finding; it's life-changing."

Baker and Kumar then set out to determine whether companies also benefited. They hypothesized that the offerings would raise employee productivity, by reducing distractions caused by financial worries, and lower employer costs, by stemming the health care expenses associated with stress-related illnesses. Proving or disproving that turned out to be infeasible with the available data. But an analysis of the employment histories on 1,707 employees at 16 companies that had adopted one or the other of the offerings yielded some interesting findings. For example, in companies partnering with Salary Finance, turnover was 28% lower among active users than an analysis of previous years' retention data would suggest. As for PayActiv, turnover was 19% lower among active users than among employees who enrolled but used the offering once or not at all.

High turnover is a perennial challenge for many of the large retail companies that employ low-wage workers, so the savings from such boosts in retention could be dramatic. Let's say a retailer with 340,000 employees has a turnover rate of 50% (a conservative figure; seasonally adjusted turnover rates among U.S. retailers average about 60%). Extrapolating from meta-studies on attrition, the researchers estimated that this would cost the company some \$567 million annually. A 28% reduction in turnover could thus save it close to \$160 million a year—and "even a 5% reduction in turnover would be worth about \$28 million," Kumar says. To be sure, the analysis found a strong association, rather than causation, between the fintech offerings and heightened retention. It's possible that the firms had other characteristics that induced employees to stay. Nonetheless, the researchers write, "We believe that there is enough evidence to support rapid implementation of employer-sponsored fintech benefits across corporate America."

Baker and Kumar anticipate that all pay will one day be instantaneous. Gig-economy companies such as Uber, which offer instant payment to their contractors, are changing workers' expectations. And the U.S. Federal Reserve seems to be nudging banks to clear funds more rapidly by rolling out an instant payment service of its own, called FedNow. "These fintech tools won't solve America's income disparity, but they can help people on the margins who are currently being exploited by the existing financial system," Baker says. "And it's in employers' interests as well—a rare win-win."

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ABOUT THE RESEARCH *"The Power of the Salary Link: Assessing the Benefits of Employer-Sponsored Fintech Liquidity and Credit Solutions for Low-Wage Working Americans and Their Employers," by Todd Baker and Snigdha Kumar (working paper)*

IN PRACTICE

"Even a Living Wage Can't Provide for All Emergencies"

***Jaime Donnelly** is the chief financial officer of Integrity Staffing Solutions, which provides temporary workers and recruiting services to large online retailers across the United States. She recently spoke with HBR about the company's partnership with PayActiv to offer workers early access to earned wages. Edited excerpts follow.*

Why did your company decide to provide this benefit?
We have a program called Project Home, in which we train our staff to recognize the signs of homelessness among applicants and associates we have placed. Through it we learned that many workers who end up homeless are using high-cost payday lenders to handle unexpected expenses. We wanted to break that vicious cycle, but we couldn't find a good solution in-house. Then we learned about fintech start-ups that focus on earned-wage access and decided to partner with PayActiv.

Why not just offer instant pay?
Mostly it was a cash-flow issue: We pay the associates we've placed and then bill our clients, who don't pay us for another 30

days. Also, many states have laws designed to prevent employers from becoming lenders.

What results have you seen?
Our primary goal was to help our associates avoid financial distress. We also hoped that with this help, they would stay in their assignments longer, decreasing turnover for our clients. Since partnering with PayActiv a little over a year ago, we've seen an uptick in attendance and a decrease in attrition. It's hard to prove causation—during this time, wages have gone up around the country, including for our associates. But we are pleased with the program. Roughly 30% of our associates have signed up for the PayActiv app—we pay somewhere between 5,000 and 25,000 employees in a given week—and some $12 million in early wages have been accessed through the program.

If a company needs to offer a service like this, is it not paying people enough?
The majority of our clients pay $15 to $17 per hour for entry-level positions, and some pay $20 or more per hour. Regardless of your wage, unexpected things come up—the car breaks down, or the furnace goes out—and sometimes a living wage can't provide enough savings for those emergencies. Many times, people just haven't made the conscious decision to save. We have seen earners of all levels need assistance with unexpected expenses. That's why we felt a holistic solution was important. PayActiv also offers financial counseling and budgeting tools along with a savings program to help associates get better control of their financial health.

What lessons can you share?
It's important to do your research. Some fintech vendors teeter on the edge of being predatory lenders themselves: They charge exorbitant fees each time an employee accesses earned wages or put a time limit on when employees can access them, which creates unnecessary pressure. You also have to make sure that the technology is accessible. Is the app available only through a laptop, or can it be used on a smartphone? Does the employee need a bank account? To service the many unbanked wage earners, PayActiv offers payment through a pay card—essentially, a preloaded Mastercard or Visa. Finally, you have to be clear about why you are doing this. We don't earn any income from our program. It costs us time and money, but it makes a difference in the lives of our associates.

Photograph by MORGAN RACHEL LEVY

IdeaWatch

SELLING THEMSELVES SHORT

CMOs are the least-confident members of the C-suite: Although nearly 50% of CEOs rate them as highly effective, just 5% give themselves an equally good score.

"The Makings of a More Confident CMO," by Diana O'Brien, Jennifer Veenstra, and Timothy Murphy

HIRING

A Simple Nudge to Boost Diversity

Even well-meaning organizations often struggle to diversify. For example, despite intensive efforts in recent years, Silicon Valley's workforce is still dominated by white and Asian men. A new study finds a straightforward intervention that could help.

Across eight experiments, the researchers explored the *partition dependence effect,* which holds that when people are asked to choose a few options from a pool segmented along a given dimension, they tend to pick some from each category. In the first experiment, participants were asked to imagine they were recruiters tasked with reviewing the profiles of eight job applicants and choosing three people to interview. For some participants, the applicants' profiles were sorted such that the first four were men's and the last four were women's; for the others (the control group), the order was random. Those in the first group made significantly more-diverse selections than those in the control group. Subsequent experiments found that the effect held when the applicants were sorted by nationality and university and when the participants themselves were seasoned human resources professionals. Importantly, the average competence of those "hired," as assessed by the GPAs on candidates' résumés, was just as high when the selection was more diverse. "Our research encourages HR professionals to pay more attention to the way in which information is presented in personnel selection decisions," the researchers write. In concrete terms, they say, "job application portals can be tweaked such that spreadsheets...sort the applicants by the category on which the company wants more diversity," while recruiters going through résumés on paper could place those from different groups into separate piles.

But what if just one person will be hired? In the final experiment, some applicants were grouped by ethnicity, and the rest were presented individually; the individually presented applicants were more often chosen. "If organizations want to increase the representation of a particular group... they can ungroup candidates from minority backgrounds but group candidates from the majority background," the researchers suggest.

ABOUT THE RESEARCH *"Let's Choose One of Each: Using the Partition Dependence Effect to Increase Diversity in Organizations," by Zhiyu Feng et al.* (Organizational Behavior and Human Decision Processes, *2020)*

PRODUCTIVITY

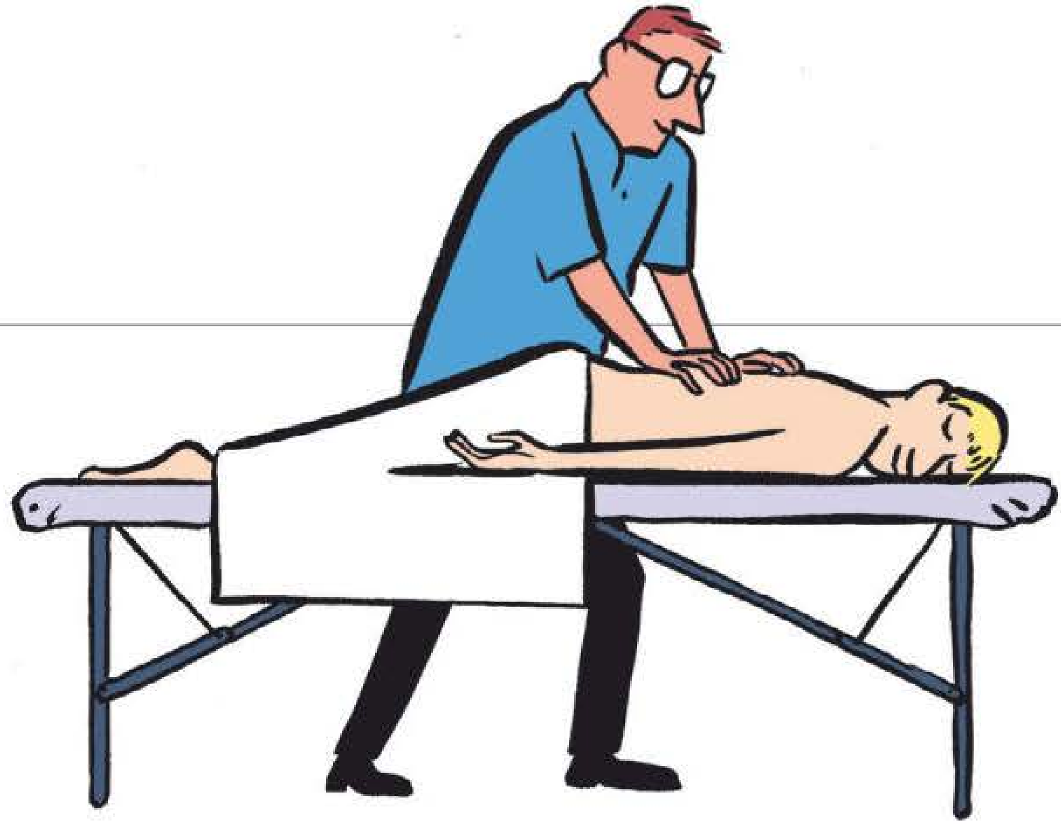
Hold Fast to Those Morning Routines

A prolific writer as well as an inspirational leader, Winston Churchill is famous for his daily routine, which began at precisely 7:30 AM with breakfast, reading, mail, and dictation, all from the comfort of his bed. Indeed, conventional wisdom holds that a consistent routine, especially early in the day, is key to productivity—and studies have found that most people follow one (or try to). A research team wondered: What happens when those routines are disrupted?

To find out, the researchers conducted two studies among employees of a large U.S. university. In the more-extensive investigation, participants were surveyed thrice daily over a three-week period, first about the extent to which they had adhered to their usual morning practices (eating breakfast, exercising, commuting to work, and so on) and, as the day wore on, about their mental energy, calmness, engagement with work, and progress toward goals. Controlling for factors including quality of sleep, tension, and day of the week, the researchers found that people reported more mental depletion and less calmness on days when their morning routines were disrupted than on other days. They also said they were less engaged with their work and made less progress toward their goals. That's because automating repeated activities into routines conserves energy for more-important pursuits, the researchers explain. When routines are disturbed, people have to expend more energy on the mundane necessities of life.

The implications for individuals are obvious, and managers should take heed as well. If aware that an employee's morning has been plagued by factors such as a sick child or a snarled commute, they could suggest a break to restore calm and boost engagement and productivity. And they might think twice before firing off early-morning emails to their teams. "Any benefit associated with contacting employees during non-work hours may be negated if it disrupts employees' non-work routines or prevents them from forming routines in the first place," the researchers write.

ABOUT THE RESEARCH *"Stumbling Out of the Gate: The Energy-Based Implications of Morning Routine Disruption," by Shawn T. McClean et al.* (Personnel Psychology, *forthcoming)*



MARKETING

Can Satisfying Today's Customers Reduce the Cost of Acquiring Tomorrow's?

Marketing managers must continually strike a balance between making customers happy and keeping costs in check. A critical expense is the cost of selling, or COS: what a firm must spend to persuade people to buy its offering and to make the purchase convenient. It's generally assumed that increased customer satisfaction reduces future COS, because happy customers' word of mouth should enable lower spending on marketing and advertising. However, that assumption lacked credible empirical backing—until a team of researchers recently decided to test it.

The researchers gathered nearly two decades' worth of data from 128 publicly listed U.S. companies. Their analysis showed that on average, each one-point increase in the American Customer Satisfaction Index score lowered a firm's future COS by almost 3%, amounting to savings of $130 million annually. The benefit was greatest for highly diversified firms (for which gains in satisfaction often cross over to other products and services), for firms in high-growth industries (for whom positive word of mouth is especially salient because many customers will be unfamiliar with new offerings), and for firms in labor-intensive industries (where offerings vary greatly from company to company, making it hard for consumers to compare them and thus encouraging them to stick with what they already know). It was less pronounced for capital-intensive firms and those with a high proportion of debt to assets, which lack the financial flexibility to fully exploit good satisfaction scores.

"These findings are of direct importance to CMOs as they can now articulate the economic value of customer satisfaction for reducing future COS to internal and external constituents," the researchers write, noting that customer-satisfaction initiatives are often underappreciated in the C-suite.

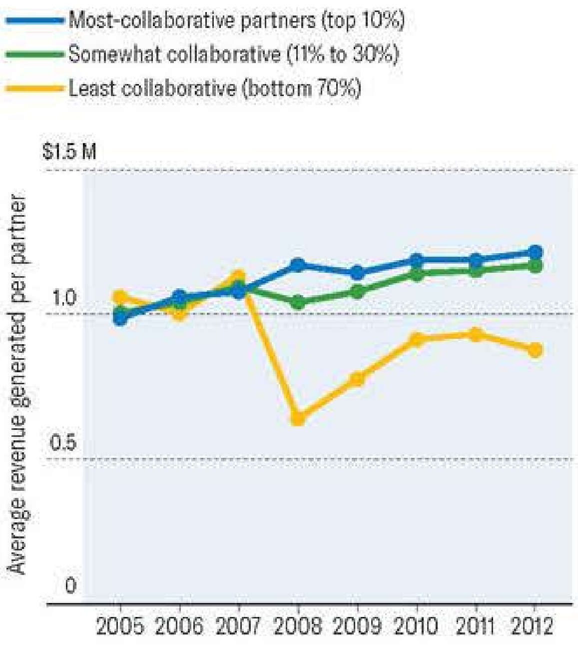
ABOUT THE RESEARCH *"Customer Satisfaction and Its Impact on the Future Costs of Selling," by Leon Gim Lim, Kapil R. Tuli, and Rajdeep Grewal* (Journal of Marketing, *2020)*

IdeaWatch

COLLABORATION

Strength in Numbers

Working together is especially important in times of crisis, when multiple perspectives and experiences can help groups devise adaptive responses to rapidly changing situations. An analysis of the work patterns and revenue generation of more than 400 partners of a global law firm shows that the most-collaborative partners outperformed their colleagues during the 2007–2008 financial crisis—and continued to do so after the recession had ended.



Note: The analysis excluded partners whose precrisis performance was in the top or bottom 10% for the firm along with practices that typically flourish in a downturn, such as bankruptcy and restructuring.

Source: Heidi K. Gardner and Ivan Matviak

EXECUTIVE COMPENSATION

Consider Personality When Structuring CEO Pay

Management scholars have devoted considerable attention to how equity pay affects chief executives' willingness to take strategic risks for their firms. They have generally concluded that the more equity a CEO personally holds, the less willing he or she will be to do anything that could jeopardize it—and shareholders often suffer from this abundance of caution. But missing from the equation, a team of researchers thought, were the effects of a CEO's particular personality traits.

The researchers assembled personality profiles on 158 executives named to head S&P 1500 manufacturing firms in 2004 and 2005 (a time frame chosen because the stock market was relatively stable). Directly measuring powerful executives' personalities is difficult, so they took a backdoor approach, compiling biographical information along with interviews, writings, published quotations, and video clips of speeches. Trained coders used the material and a common assessment scale to describe each CEO's personality along four of the Big Five personality traits, which are thought to be stable over time: conscientiousness, neuroticism, extroversion, and openness (the study omitted agreeableness, which prior work has found to be especially complex as a predictor of CEO behavior). The researchers used stock options to capture the CEOs' equity wealth, and they combined data on long-term debt, R&D spending, and capital expenditures to measure strategic risk-taking.

Controlling for factors including gender, tenure, wealth, and company performance, the researchers found that CEOs who scored high on extroversion and openness were less likely to cut back on strategic risk-taking as the value of their stock options increased, while executives who scored high on conscientiousness were more likely to do so. (Neuroticism made no difference either way.) Psychologists have shown that highly conscientious people are more sensitive to potential losses than to potential gains, the researchers explain, while for extroverted and open individuals, it's just the opposite—and boards could profit from taking those factors into account. "Our findings underline the importance that should be placed on designing CEO compensation contracts

CROSS-BORDER OFFENDERS

Across five countries studied—the United States, Mexico, the UK, France, and Germany—80% more media outlets reported on unethical or socially irresponsible company behavior when the infraction involved a foreign brand.

"When Does Corporate Social Irresponsibility Become News? Evidence from More Than 1,000 Brand Transgressions Across Five Countries," by Samuel Stäbler and Marc Fischer

only after analyzing the CEO's personality," the researchers write.

ABOUT THE RESEARCH *"CEO Equity Risk Bearing and Strategic Risk Taking: The Moderating Effect of CEO Personality," by Mirko H. Benischke, Geoffrey P. Martin, and Lotte Glaser* (Strategic Management Journal, *2019)*

SOCIAL MEDIA

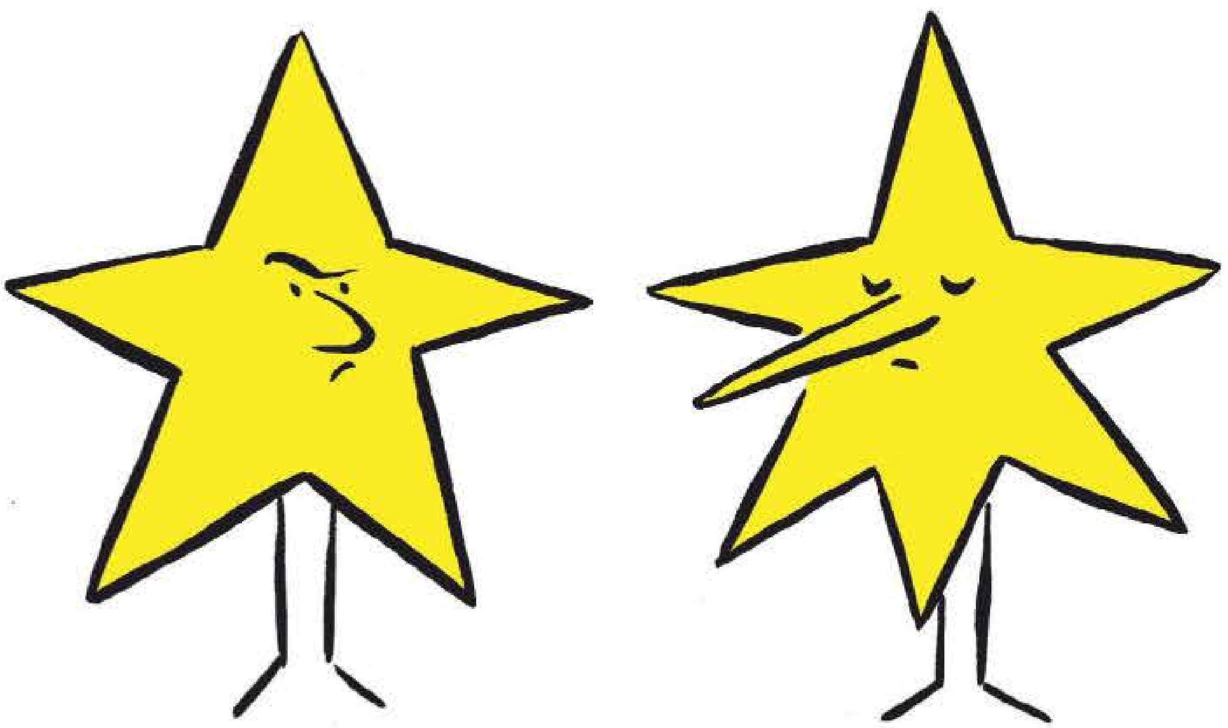
Stop Censoring Fake Reviews

Review platforms are effective only if a consumer can trust the content. To that end, they deploy sophisticated algorithms that can accurately detect fraudulent reviews. The question then becomes: What to do with the results?

Some sites, including Amazon, censor fake reviews and publicize that fact—indeed, they sometimes sue the suspected perpetrators. Others, such as Google Local and Flipkart, quietly delete them. Still others—most notably Yelp—leave them up while flagging them as potentially fraudulent. A research team devised a series of experiments to determine which tactic works best.

In the first experiment, the researchers created two versions of a review site and asked participants to log on and choose the restaurant they thought was best. Half saw fraudulent reviews, tagged as such, along with legitimate ones; the other half saw only legitimate reviews. Members of the first group clicked on more restaurants than did members of the second and spent more time making a selection, suggesting a higher degree of engagement. A subsequent experiment explored a broader range of scenarios. It showed that consumers exhibited the most confidence in a platform when questionable reviews were not only displayed but accompanied by a "trust score" that made it easier for people to assess them. The scenario in which fake reviews were deleted without any mention of their existence—the most common approach in practice—performed the worst of all. A supplemental survey showed that the inclusion of clearly identified fraudulent reviews increased trust in the platform because users believed that fear of exposure would curtail dishonest posts. And a third experiment showed that transparency about fake reviews had the greatest impact when participants were uncertain about the quality of the offering—when legitimate reviews were mixed.

Platforms can increase trust by leaving potentially fraudulent reviews on their sites along with a decision heuristic to aid consumers, the researchers say. "Any decrease in trust...from admitting to naive users that there is fraud on their site is dominated by the increase in trust from consumers who already believed that there was fraud and now know that something is being done to alleviate it."



ABOUT THE RESEARCH *"A Tangled Web: Should Online Review Portals Display Fraudulent Reviews?" by Uttara M. Ananthakrishnan, Beibei Li, and Michael D. Smith* (Information Systems Research, *forthcoming)*

GENDER

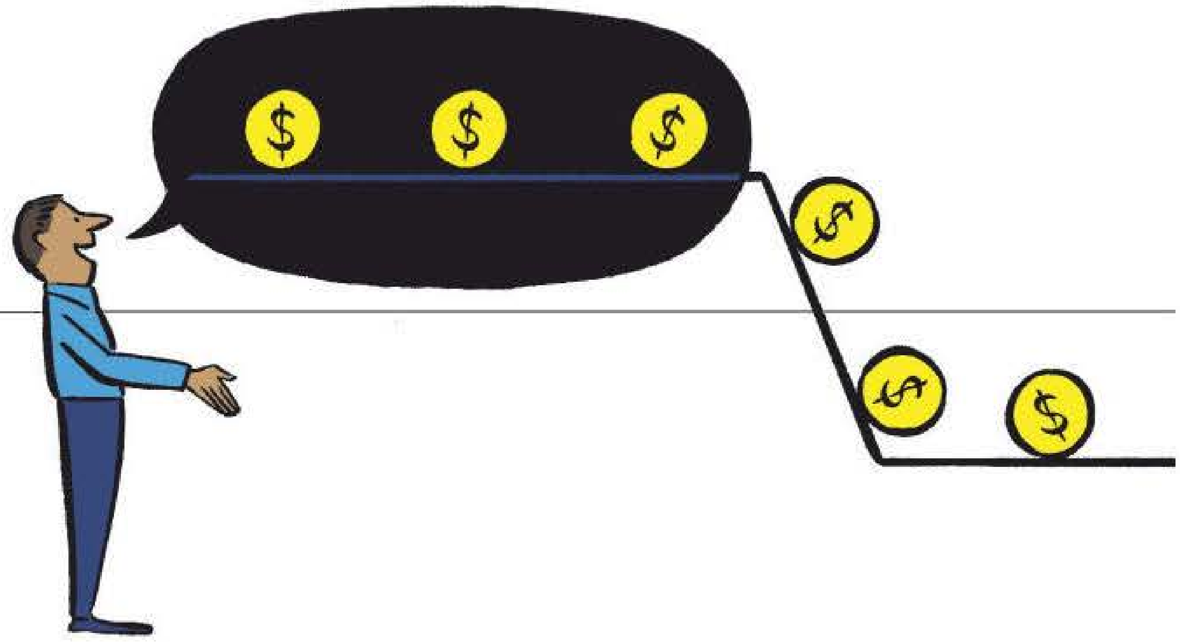
Women Self-Promote Far Less Than Men

We're often asked to evaluate our own abilities—for example, when interviewing for jobs or participating in performance reviews. A new study finds that this is yet another area where gender plays a role: Across several experiments, women's self-evaluations were much lower than those of equally capable men.

After administering a standard aptitude test, the researchers assessed 2,696 participants on *confidence,* or how many questions they thought they answered correctly; *performance,* or how well they actually did; and *self-promotion,* gauged by their responses to subjective questions about their abilities (for instance, the extent to which they agreed with the statement "I performed well on the test"). On average, men rated their performance 33% higher than similarly performing women rated theirs.

The researchers cannot conclusively explain these findings. But they ruled out possibilities including differing responses among men and women to incentives to inflate one's performance (the results held whether or not participants thought a potential employer would see their self-evaluations) and differences in confidence (although women tended to underestimate their test scores, whereas men overestimated theirs, the gap in self-evaluations persisted even when subjects were shown their scores before assessing themselves). Regardless of the reasons for the disparity, "If the goal is to treat equally performing men and women equally," the researchers write, "identifying that self-evaluations may have a built-in gender bias suggests that [they] should be deemphasized relative to more objective metrics in determining hiring and promotion decisions."

ABOUT THE RESEARCH *"The Gender Gap in Self-Promotion," by Christine L. Exley and Judd B. Kessler (NBER working paper)*



INNOVATION

How Language Influences R&D Spending

Levels of R&D investment vary significantly from country to country. Studies have found some explanations, namely differences in economic institutions and cultural values. Drawing on evidence that people who speak different languages think differently, new research finds that language, too, plays a role.

The researchers obtained UN data on national R&D investment in 52 countries from 1996 to 2013. In 15 of the countries, people speak weak *future-time reference* (FTR) languages: ones with no explicit future tense. Those include German, Mandarin, and Japanese. The researchers' analysis showed that weak FTR leads to much higher R&D investment and is also linked to greater patent generation.

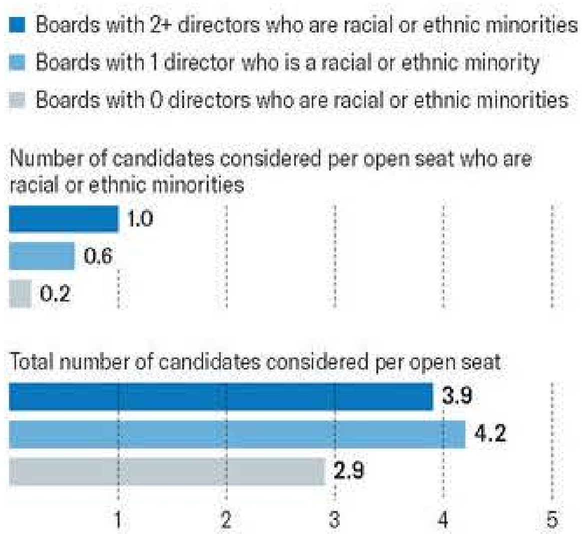
Because weak-FTR languages are more ambiguous than strong ones in their references to future timing, the future seems closer, the researchers explain. That makes the present value of a future reward appear greater, inspiring higher levels of investment. And indeed, prior work has shown that speakers of weak-FTR languages exhibit more long-term-oriented behavior in their personal lives: They save more for retirement, smoke less, and are less likely to be obese. "If aware of the dampening effect of strong-FTR on R&D investment, policy makers in those countries may start thinking about countervailing policy initiatives," the researchers write.

ABOUT THE RESEARCH *"Is Language an Economic Institution? Evidence from R&D Investment," by Jianxin Daniel Chi et al.* (Journal of Corporate Finance, *2020)*

RACE

The Recruitment Problem on All-White Boards

More than one-third of S&P 500 firms had no Black directors in 2019—and a survey of 1,028 U.S. directors found that homogeneous boards recruit almost no minority candidates and consider fewer candidates overall per open seat.



Source: J. Yo-Jud Cheng, Boris Groysberg, and Paul M. Healy; *WomenCorporateDirectors;* Spencer Stuart; Deborah Bell

IdeaWatch

Don Moore of Berkeley's Haas School of Business and his colleagues gave a math test to a group of volunteers after manipulating their confidence. Half were told that the results of their intake surveys predicted that they would get most answers right; the other half were told that they'd bomb the test. Going in, members of the first group were optimistic about how they would perform, while those in the second group had real doubts. Their expectations matched those of observers who were asked to guess which subjects would do better. But the two groups of test takers scored nearly the same. **The conclusion:**

Confidence Doesn't Always Boost Performance

Professor Moore, DEFEND YOUR RESEARCH

MOORE: When Elizabeth Tenney, Jennifer Logg, and I did this experiment, we expected to find that being confident would enhance performance. That made intuitive sense to us. But we simply failed to see that result. People who were told that they would perform well and felt positively about how they'd do fared no better than those who were told that they would get most of the answers wrong and were worried about it. So we figured maybe a math test wasn't the best measure. Maybe we'd see different effects with different types of tests.

HBR: Let me guess... We tried encouraging people—making them think they would do well—on a range of things: endurance and athletic challenges, trivia quizzes, boring persistence tasks, and even "Where's Waldo?" puzzles. There was no arena in which we found an effect on performance.

But wait. Are you saying that "You've got this! You can do it!" pep talks are a waste of time? We didn't specifically study pep talks. What I can say is that telling people they're going to nail it isn't necessarily going to make them do better. In fact, if a "You're awesome!" kind of speech convinces an individual or a team that they can do better than they actually can, it can impair their performance—because they're overconfident and think they don't have to try as hard. My students who are the most sure that they're going to ace an exam and therefore don't study aren't the ones who get the best grades. Having accurate beliefs about your likelihood of success and what it's going to take to achieve it is the best mindset for any task.

So justifiable confidence is OK—and possibly can boost your performance? Yes! Justifiable confidence not only is OK but is essential. If you will probably win the contest, it would be a mistake to stay out of it. If the new product will probably be a success, it would be a mistake not to introduce it. If you would hit it off with that attractive stranger, it would be a mistake not to introduce yourself to him or her. In these contexts, as in

If you fake confidence, you may fail to prepare your organization—or your nation—for an impending risk and then manage it badly when it does hit.

many others, justifiable confidence is an essential ingredient for wise decision-making.

So we shouldn't try to project a confidence that we don't actually have? Even when we're the boss? I'm going to question your assumption that bosses or other businesspeople should do that. Imagine that an entrepreneur is pitching a venture capitalist. Is it really useful for the entrepreneur to delude themselves and the venture capitalist about the potential of their business? That creates problems when they overpromise and fail to deliver. Entrepreneurs can be honest and successful. Jeff Bezos estimated that there was a 70% chance that Amazon would fail. He told his parents, who were among his earliest investors, not to give him any money they could not afford to lose.

Aside from the risk of underperforming expectations, what's the harm in a little false confidence? Don't a lot of people get ahead by faking it until they make it? I have done research showing that displays of confidence increase influence and social status. Obviously, you can fool some of the people some of the time with false bravado. But it is a fragile leadership strategy. Even if you reconcile yourself to the implicit hypocrisy, you have to worry about being unmasked. And if you fake confidence, you may fail to prepare your organization—or your nation—for an impending risk and then manage it badly when it does hit. This highlights the need for us as employees or investors or voters to be wary of poseurs and con men. We should require our would-be leaders to provide evidence of their capabilities and invite them to bet on the claims about which they're so confident.

Does that mean that in a meeting a manager is supposed to say something like "I'm 80% sure we'll see $10 million in sales in the first year?" Exactly. What does each team member forecast for first-year sales? Have them commit to the chance that sales will surpass or fall short of some number and then publicize their bet. When there's a reputational stake associated with these types of forecasts, everyone tends to be a little more circumspect and realistic, which leads to better predictions.

How else can people bring their confidence in line with reality? Use the most general-purpose debiasing strategy that psychologists have identified: Do a reality check by asking yourself why you might be wrong, because knowing where your perception might diverge from the truth helps you accurately calibrate your confidence. Explicitly consider the other side. How might you be making a mistake? What would your greatest critics say about your plan or belief? Inviting a trusted adviser to play devil's advocate is also a good idea. After the Bay of Pigs fiasco, John F. Kennedy implemented many such checks within the executive branch, including beefing up the daily intelligence briefings he got so that they would challenge his assumptions—an approach that seems to be out of favor in the current administration.

In my own organization, when we make decisions about tenure, we explicitly appoint a faculty member to highlight a candidate's weaknesses and argue for why the person shouldn't get tenure. Some courageous leaders will ask a trusted confidant with standing within their organization to question what the boss is saying and take the contrary position in discussions of important initiatives. Another strategy is to have people weigh in with their opinions and predictions before the leader speaks. If you don't know what the boss is going to say, you're more likely to offer an honest point of view that might be contrary to his or her perspective.

In your book *Perfectly Confident*, you admit that your mother thinks you're a "Debbie Downer" about optimism. How do you respond to that? My position is that people should believe the truth and align their beliefs with reality. That's the only approach that I can recommend in good conscience. Sometimes that means bringing delusions of grandeur down to earth and earning your confidence by doing the work needed to become the type of performer you'd like to be. But for anyone suffering from underconfidence, it actually means increasing your confidence so that it more accurately reflects your potential. When you should be confident but aren't, it can lead to missed opportunities—ventures you failed to start, jobs you failed to apply for, relationships you failed to initiate because you underestimated your chances of success. That's as big a mistake as thinking you're better than you really are.

Interview by **Gardiner Morse**

HBR Reprint F2006B


Connecting the Organization's Planning Capabilities Starts with Digital Transformation

IdeaWatch

HOW I DID IT THE CEO OF IBERDROLA ON COMMITTING TO CLEAN ENERGY

by José Ignacio Sánchez Galán

I will never forget the day Íñigo de Oriol e Ybarra, the former chairman of Iberdrola, asked me to join the company as its new CEO. Iberdrola was the second-largest Spanish utility, after the state-owned Endesa. At the time, I was leading Airtel Movil, the Spanish mobile telecom company that in just five years had become the main competitor of Telefónica. Airtel had recently been acquired by Vodafone, and I had been asked to stay on under the new parent company. But I got a surprise call from Íñigo de Oriol, whom I knew by reputation.

He asked me to meet him at a Madrid hotel bar frequented by the city's top executives, bankers, and politicians. I walked in at 7 PM and found him at a central table. He got right down to business: "Ignacio, you need to join me. Come lead Iberdrola." This was not said in a whisper; his voice was so loud everyone around us could hear.

Iberdrola was the result of the merger of two Spanish utilities about 10 years before. Its assets, unlike those of many other energy companies at the time, were primarily sustainable: hydro and nuclear. But it also had some oil- and coal-fired power-generation plants, and its footprint was limited to Spain and a bit of Latin America. The company needed a CEO who was willing to challenge traditional industry models and build a better future. Needless to say, I decided to seize that opportunity.

Photograph by GIANFRANCO TRIPODO

Top: Iberdrola's Núñez de Balboa project, in Badajoz, Spain, contains 1.43 million solar panels. Bottom: Construction work at the Tâmega hydroelectric plant, in northern Portugal, which will be able to provide 440,000 homes with electricity by 2023.

I was appointed CEO in 2001 and then chairman and CEO in 2006.

The past two decades have been some of the most rewarding of my career. Thanks to the hard work of our entire team, we have expanded into dozens of countries on four continents, grown to serve 100 million people with power, created one of the largest wind energy companies in the world, and closed all our oil and coal plants.

It wasn't easy to commit to a growth strategy based on clean energy and reducing our operating emissions by 50% by 2030—before virtually anyone else in our industry was making any such promises. But it was the right decision. And in recent years we have been rewarded for our foresight. Since 2001 we have grown from about the 20th-largest worldwide electric utility to the third-largest, with our size and results multiplying by a factor of five. Most important, employees and subcontractors around the world consistently tell both us and rating organizations that Iberdrola is a great place to work.

Our story should be instructive for any company interested in remaking its strategy in a way that benefits all stakeholders and promotes more-sustainable living. In the wake of the Covid-19 pandemic and the resulting economic and social fallout, it will be critically important to build back better than before. And we can. It just takes values, vision, focus, and a lot more urgency than patience.

A CENTURY OF HISTORY

Iberdrola the corporate brand was born in 1992, when Iberduero merged with

Courtesy Iberdrola

Competitors thought I was crazy: Wind power was in its infancy, and solar was prohibitively expensive, so no one understood why I wanted to target renewable energy.

Hidroeléctrica Española. In 2001, following my arrival, the company adopted a strategic plan that anticipated the world's need for more clean energy and called for global expansion with the aim of doubling the size of the company's revenue and EBITDA in just five years. We met that goal.

Now Iberdrola was ready for the next step. My background had prepared me for the challenge. After graduating as an industrial engineer from ICAI, the engineering school of Universidad Pontificia Comillas, in Madrid, I went to work for a car-battery manufacturer and rose through the executive ranks. I then moved on to lead two aerospace-engine makers before my time building Airtel Movil into the second-largest telecom company in Spain and a Vodafone acquisition target. (It is now Vodafone España.)

Both the board and I recognized that my previous experience was relevant. My engineering degree meant I could understand the details of the business. I'd led teams of engineers on complex projects and had built and sold highly technical products. I'd developed and executed on an ambitious B2C growth strategy. And my values gave me the grounding to design and lead Iberdrola's green mission. I have a love for nature born during a village childhood surrounded by cows, horses, rabbits, trees, streams, and fields, and I abide by the Jesuit calling to serve not only oneself or—in the case of a corporate executive—one's investors but all stakeholders and the broader society.

Once in the CEO seat, my first job was to finally complete the merger that had been signed so many years before. I needed to make sure we were all rowing in the same direction. For months I talked to people around the company—in 10 to 15 meetings a day—and asked about their perceptions and priorities. I still have the sticky notes. I sought advice from professors, mentors, former colleagues, contacts within and outside the energy industry, even my son. What I discovered was that we had many good people who could unite around some key corporate values: hard work, honesty, loyalty, and team spirit.

A MODERN-DAY STRATEGY

We also needed vision: a more ambitious strategy focused squarely on our core business of generating and distributing sustainable and renewable energy through plants, networks, and storage facilities. As world governments began taking climate change seriously and setting carbon emissions reduction targets, we aimed to leave fossil fuels and other interests (small stakes in Telefónica and Spanish media and property) and double down on that low-carbon future. And to have real impact, we had to transition from being a nearly 100% Spanish company to being a truly global one.

My team and I worked on a plan and presented it to the board, explaining that it would require a €12 billion investment over five years, even as we accrued proceeds from divestitures. We would invest in acquisitions, new ventures, digitization, and the well-educated and -trained talent we would need to execute the plan. The board gave its approval within a day.

Of course, we heard criticism from other corners. Competitors thought I was crazy: Wind power was in its infancy, and solar was prohibitively expensive, so no one understood why I wanted to target renewable energy. Regulators raised a skeptical brow. Some senior executives retired or left.

Change is never easy. But after those departures and a few key hires, I knew I had a team committed to our plan, values, target, and goals. I won buy-in from employees through constant engagement. In those early years I started hosting hundreds of people in large town-hall-style gatherings. If we were scheduled for two hours, I would open with a 10-minute speech and spend the rest of the time answering questions. I also took online queries and feedback via our corporate intranet. Over and over, I explained what we aimed to do, where we wanted to go, and why it would be good for everyone. I still do this regularly.

Believe it or not, the biggest hurdle in the whole transition process may have been persuading the board to change our blue logo to the green, blue, and orange leaves you see today. Everyone was used to the existing color and image, which had been around for decades. But I wanted a logo that symbolized our future. I had to plead my case over the course of three meetings. For the last one my team and I pulled out all the stops: We decorated the boardroom green, set a corridor of green flags along the road that fronts our Madrid headquarters, and lined up a fleet of green cars outside. The directors finally agreed.

Then the work began, starting with divestitures and closures. We began phasing out oil- and coal-fired power plants and announced our final closure in 2017. We also sold off our nonenergy businesses. Then we turned our attention to renewable energy, smart grids, and storage, both at home and abroad.

Most Spanish companies start with Latin America. Indeed, Iberdrola had already done that to a limited extent. Without setting aside that region, I was interested in countries with high credit ratings, more-predictable regulation, and stabler legal frameworks. They may not be as profitable as emerging countries, but they're less risky. And our board and shareholders were expecting us to make safe and long-term—not speculative—investments.

By 2007 we had integrated ScottishPower, which had a few fossil-fuel-dependent facilities but was moving toward a focus on wind; its subsidiary PPM Energy was at the time the second-largest wind farm operator in the United States. The £11.6 billion all-stock deal made us the third-largest utility in Europe. Many questioned whether a Spanish company could manage a traditional British utility. I remember that one competitor launched a campaign with a picture of a flamenco dancer, inviting our customers to switch to it. But when we presented our philosophy and targets to executives, shareholders, and local politicians, they bought in. And, as with subsequent foreign acquisitions, we kept the local team in place while transitioning the business in the same way our Spanish one had—moving out of unsustainable and high-carbon businesses and investing in sustainable and low-carbon ones.

Our next move was in the United States: We acquired Energy East, a utility that then had more than 3 million electricity and gas customers spanning New England and New York. The investment community, particularly Wall Street, remained skeptical at first. It viewed us as Spaniards trying to push some crazy ideas through a heavily regulated industry in various parts of the world. And engineers aren't always the greatest salespeople. But after further growth and mergers, our Avangrid business in the United States has $30 billion in assets and is listed on the NYSE with more than $15 billion in market capitalization at the time of this writing.

I should point out that not everything we heard in the early days was negative; as we set out to implement our new strategy, we heard some positive voices, too. Even as far back as 2002, the analyst who covered us for UBS published a report called "Kiss the Frog," referring to our new green image and suggesting that we now looked pretty attractive. The financial community started to believe, as we did, that our goals were achievable.

We pressed on. In Brazil we bought and built assets and companies that now make up Neoenergia, which was

Iberdrola's Groton Wind Farm, in Grafton County, New Hampshire

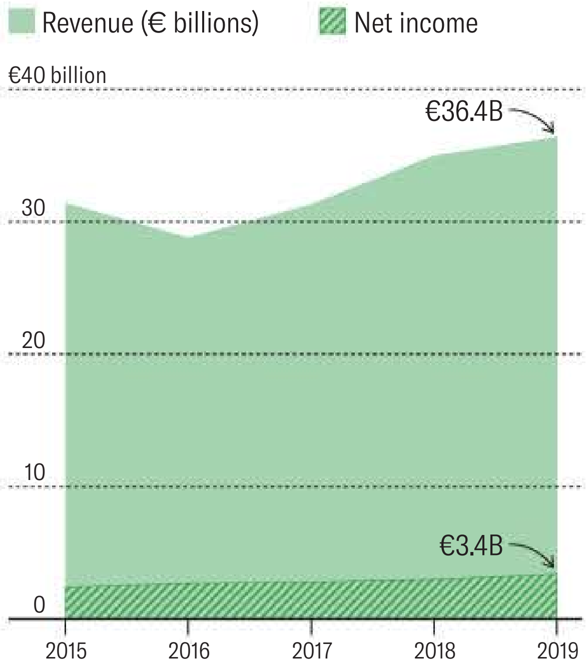
Courtesy Iberdrola

The investment community remained skeptical at first. It viewed us as Spaniards trying to push some crazy ideas through a heavily regulated industry.

FACTS & FINANCIALS

Iberdrola

Founded: 1992
Headquarters: Bilbao, Spain
No. of employees: 35,217



Source: Iberdrola

successfully listed in 2019. We operate across 18 states in the country, covering all areas of the energy value chain—from wind and hydro and gas generation to transmission and distribution networks—and supplying energy to 35 million people.

In Mexico we have grown over 20 years to become the country's largest private generator of electricity. We have since invested in hydro and wind and solar in Portugal and in offshore wind in Germany and France, and we've established sustainable operations in Greece and Hungary. In 2020 we took our first steps in Australia, a country with huge renewable-energy potential. That has helped make us one of the top five electricity utilities in the world and a leader in wind power. And we continue to build out our operations in the United States and the United Kingdom, particularly with wind farms, while closing coal-fired facilities.

Back home in Spain we've expanded hydroelectric capacity and deployed smart grids and meters around the country. We are now the country's largest electricity company, supplying 20 million people—almost half the population. We plan to triple our renewables business here in the coming years. We are also investing in electric mobility, photovoltaics, battery storage systems, and blockchain technology to guarantee that our energy is 100% clean.

THREE-WAY WINS

At Iberdrola we are working to benefit society and our employees as well as shareholders. Since 2001 we have invested more than €100 billion in cleaner energy, smarter networks, and storage around the world. In 2019 our carbon dioxide emissions per kilowatt hour of electricity generated were just one-third the average among our competitors in Europe.

For the second year in a row, Corporate Knights named us one of the world's top 100 sustainable companies. The Ethisphere Institute has also rated us one of the world's most ethical companies for seven consecutive years. In 2018 we received both the European Environmental Award from the king of Spain and an award from Al Gore's Climate Reality Project, and we have been included on the FTSE4Good Index for a decade.

We support 400,000 jobs around the world and focus on training and development, including company-sponsored university programs and classes on our own campuses. For just one example of how international and highly educated our teams are now: Our offshore wind design group consists of close to 1,000 people in four countries (a UK base plus the United States, Germany, and France) representing 18 nationalities and dozens of expertise areas, from marine biology to drilling, corrosion to weather. Internal surveys show that nearly 90% of our employees would recommend working for Iberdrola.

Meanwhile, our net profit of €3.4 billion in 2019 represents a fivefold increase since 2001. In fact, since 2001 the total return for shareholders has been about 715%. Not only are we more profitable but we're creating a stronger workforce; a cleaner, more efficient operation; and a safer world.

Investors and analysts joke with me about some European competitors who are now trying to follow our strategy after years of milking fossil fuels. I say, "Welcome." Climate change has become a climate emergency, and we need everyone on board to fight it. In a post-Covid world clean energy will offer real opportunities to drive economic growth, support industry, and create jobs.

We believe that leaders in any organization, in any sector, can build companies that exist to benefit not just shareholders but also their workers and society. We must ensure that the business world puts sustainability and a future orientation at the forefront of strategy. It is both an obligation and an opportunity.

HBR Reprint R2006A

Spotlight

MANAGING RISK AND RESILIENCE

Photograph by JOHN KUCZALA

Spotlight

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The Risks You Can't Foresee

What to do when there's no playbook

WELL-RUN COMPANIES PREPARE for the risks they face. Those risks can be significant, and while they're not always addressed successfully—think *Deepwater Horizon,* rogue securities traders, and explosions at chemical plants—the risk management function of a company generally helps it develop protocols and processes to anticipate, assess, and mitigate them.

Yet even a world-class risk management system can't prepare a company for everything. Some risks are so remote that no individual manager or group of managers could ever imagine them. And even when firms envision a far-off risk, it may seem so improbable that they're unwilling to invest in the capabilities and resources to cope with it. Such distant threats, which we call *novel risks,* can't be managed by using a standard playbook.

In the following pages we'll explore the defining characteristics of these risks, explain how to detect whether they've materialized, and then describe how to mobilize resources and capabilities to lessen their impact.

WHAT MAKES RISKS NOVEL

Unlike the more-familiar and routine risks a company faces, novel risks are difficult to quantify in terms of likelihood or impact. They arise in one of three situations:

The triggering event is outside the risk bearer's realm of imagination or

Victor Prado/The Licensing Project

The clearest signal that a novel risk is emerging is anomalies—things that just don't make sense. This sounds obvious, but most anomalies are difficult for people to recognize.

experience or happens somewhere far away. These kinds of events are sometimes labeled *black swans,* but they're not inherently unpredictable. The global financial crisis of 2008, for instance, has often been described as a black swan because most banks investing in and trading mortgage-backed securities were blind to the risks embedded in their portfolios. They didn't envision a general decline in real estate prices. A small number of investors and banks familiar with real estate and financial markets, however, did anticipate a mortgage market meltdown and earned huge profits by shorting mortgage-backed securities.

Often, unforeseen risks arise from distant events at a company's supplier. Take the case of a small fire in a Philips semiconductor plant in Albuquerque, New Mexico, in March 2000. Triggered by a lightning strike, it was extinguished by the local fire department within minutes. The plant manager dutifully reported the fire to the plant's customers, telling them that it had caused only minor damage and that production would resume in a week. The purchasing manager at Ericsson, a major customer, checked that his on-hand inventory of the plant's semiconductors would meet production needs over the next couple of weeks and didn't escalate the issue.

Unfortunately, the fire's smoke and soot and the extensive hosing of the facility had contaminated the clean rooms where highly sensitive electronic wafers were fabricated, and production didn't restart for several months. By the time the Ericsson purchasing manager learned about the delay, all alternative suppliers of several of the plant's wafers had already been committed to other companies. The component shortages cost Ericsson $400 million in lost revenues from the delayed launch of its next-generation mobile phone and contributed to its exit from this market the following year.

Multiple routine breakdowns combine to trigger a major failure. Large, interconnected technologies, systems, and organizations can lead to a situation in which a number of events, each manageable in isolation, coincide to create a "perfect storm." Consider Boeing's development of the 787 Dreamliner. For this plane, Boeing introduced new structural materials—composites rather than aluminum—to make the airframe lighter; required its first-tier suppliers to take unprecedented responsibility for design, engineering, and the integration of subassemblies; and replaced the hydraulic controls used in previous generations of aircraft with electronic controls that required large lithium batteries for backup. A Boeing engineer interviewed in the *Seattle Times* in 2011 noted that compared with all prior models, the 787 was "a more complicated airplane, with newer ideas, new features, new systems, new technologies."

Boeing experienced seven major and unexpected delays to the 787's development, with commercial flights beginning three and a half years later than originally planned. The delays added more than $10 billion in development costs and forced Boeing to purchase a major supplier to prevent its insolvency. After the 787 was launched, its onboard lithium batteries caught fire during a number of flights, which led authorities to ground all the planes for several months. The company told Reuters, "We made too many changes at the same time—new technology, new design tools, and a change in the supply chain—and thus outran our ability to manage it effectively."

The risk materializes very rapidly and on an enormous scale.

IDEA IN BRIEF

THE PROBLEM
Even a company with a world-class risk management system will come up against novel risks it has not planned for.

WHY IT HAPPENS
Some risks are so remote that no manager imagines them. And even if the firm does envision them, it may be unwilling to invest in the capabilities and resources to cope with them because they seem so unlikely.

THE SOLUTION
Recognize novel risks by being alert for anomalies, interpreting reports from the field, and scanning for unusual events outside your industry. Once you've identified a novel risk event, mobilize an incident team or empower your people on the front lines to deal with it quickly.

Organizations train personnel, design equipment, and map out responses to address foreseeable risks but judge it impractical or uneconomical to prepare for events that are beyond a certain magnitude. Some events, moreover, are so huge that they make even the best cost-benefit analysis obsolete and happen so fast that they overwhelm planned responses. We call this category *tsunami risks,* after the Fukushima nuclear plant catastrophe in Japan, an archetypal example.

Fukushima, like many other power plants in Japan, had been designed to withstand rare events such as earthquakes and ocean waves up to 5.7 meters high. But the Tōhoku earthquake in March 2011 generated a remarkable 14-meter-high tsunami that swept over the plant's seawall, filling its basements and knocking out the emergency generators at the plant, which had already suffered severe damage from the quake. The impact was overwhelming: The plant had three nuclear meltdowns and three hydrogen explosions, releasing radioactive contamination throughout the local region and forcing more than 100,000 people to evacuate. During the next three years, Tokyo Electric paid out more than $38 billion to compensate individuals and businesses for the disruption.

The Covid-19 pandemic is similar. The world was already familiar with managing global outbreaks of viruses that cause acute respiratory symptoms, including the SARS epidemic in 2003, H5N1 "avian" flu in 2004 to 2006, and H1N1 in 2009. The CoV-2 coronavirus, despite being a variant of SARS, was novel because people it infected were both asymptomatic and contagious for an extended period, spreading it much farther and faster than most national health care systems had planned for.

Companies can sometimes avoid the worst consequences of novel risks by using scenario analysis, a routine risk management tool, to identify them and then taking action to mitigate them. But even if applied frequently, this technique will not cover all eventualities, and sooner or later companies will confront risks they're unprepared for.

RECOGNIZING NOVEL RISKS

The clearest signal that a novel risk is emerging is anomalies—things that just don't make sense. This sounds obvious, but most anomalies are difficult for people to recognize or process.

Take two of the cases already described. An experienced purchasing manager for semiconductors should arguably have realized that the soot, smoke, and large quantities of water that accompany even a minor fire could compromise the integrity of clean rooms. A senior risk manager at Boeing, presumably familiar with complex engineering projects, should have anticipated that novel risks could arise in the development of a plane when first-tier suppliers were performing major tasks they had never done before, the plane incorporated materials never used before at such a scale in a large aircraft, and familiar analog hydraulic controls were replaced with entirely new electronic ones.

Failures to pick up signals are rooted in well-documented biases. Decades of behavioral research show that people pay attention to information that confirms their beliefs but disregard it when it conflicts with them. They often dismiss repeated deviances and near misses as mere blips. This "normalization of deviance" gets reinforced by groupthink, which causes team leaders to suppress or ignore concerns and anomalies reported by lower-level personnel.

Biases are also often reinforced by standard procedures. In 1998, for example, a Deutsche Bahn high-speed train derailed in Lower Saxony, Germany, killing 101 people and seriously injuring 88 others. But the accident could have been avoided. A passenger had seen a large piece of metal (later determined to have been a section of a wheel) emerge from the floor into a cabin, where it became wedged between two passenger seats. Yet he didn't activate a nearby emergency brake, because a prominently displayed sign warned that travelers would be subject to a large fine if they pulled the brake without authorization—a measure intended to prevent unnecessary train stoppages.

The passenger dutifully went to find a conductor, who had the authority to activate the brake but still failed to do so. When the conductor was sued for negligence by Deutsche Bahn, he successfully defended his actions by claiming that he had followed an established rule that required him to visually inspect any problem (which in this case was several carriages away) before triggering an emergency stop. His adherence to the protocol for managing a routine risk delayed his response to the novel event—with catastrophic consequences.

The bottom line is that recognizing a novel risk requires people to suppress their instincts, question their assumptions, and think deeply about the situation. This System Two thinking, as Daniel Kahneman terms it, is unfortunately more time-consuming and more demanding than making a rapid evaluation and following the rules. And in cases like the train derailment, the pressure of the moment makes it more rather than less likely that people will default to their instinctive thinking mode. Given those problems, companies cannot rely on managers familiar with routine risk protocols to identify novel risks. They should instead:

Empower a senior executive to worry about what could go wrong. At Nokia,

another large customer of the Philips Albuquerque semiconductor plant, information about any unusual event in a supply chain had to be reported to a senior vice president of operations, logistics, and sourcing. This executive, who had few day-to-day operational responsibilities, served as the company's top troubleshooter, or—as we like to say—its "chief worry officer."

This role differs from that of a traditional chief risk officer, whose priorities are to improve the management of known routine risks and to identify new risks that can then be transformed into manageable routine risks. By contrast, the worry officer has to quickly recognize the emergence of any novel risk and mobilize a process for addressing it in real time.

When Nokia's purchasing manager received the call about the plant fire, he checked that existing inventory levels were adequate and logged it as a routine event, just as his Ericsson counterpart had done. But following protocol, he reported it to the senior VP as a supply chain anomaly. The VP investigated further and learned that parts shortages from the plant could potentially disrupt more than 5% of the company's annual production.

The VP mobilized a 30-person multifunction team to manage the potential threat. Engineers redesigned some chips so that they could be obtained from alternative sources, and the team quickly purchased most of the remaining chips from other suppliers. But there were two types of chips for which Philips was the only supplier. The VP called the Nokia CEO, reaching him on the corporate plane, briefed him about the situation, and got him to reroute the plane to land in the Netherlands and go meet with Philips's CEO at Philips headquarters.

After the meeting the two companies agreed that "Philips and Nokia would operate as one company regarding those components," according to an interview the troubleshooter gave the *Wall Street Journal.* In effect, Nokia could now use Philips as its captive supplier for the two scarce chips. The relationship allowed Nokia to maintain production of existing phones, launch its next generation of phones on time, and benefit when Ericsson exited the mobile phone market.

Digitize event reporting. Digital technology can be a powerful tool in the search for anomalies, as the experiences of the Swiss electricity utility Swissgrid illustrate. Through a user-friendly mobile app, RiskTalk, Swissgrid's employees can quickly report safety violations, maintenance problems, and imminent equipment failures. A rotating group of risk, safety, and quality managers monitor the app's messages in a central control room, applying data analytics to connect the dots between these small and unrelated reports and identify potential novel risks. A control room manager who believes that a low-probability novel risk might materialize can analyze it more deeply to determine whether to implement a nonroutine response. In effect, members of the team serve as the company's chief worry officers, empowered to think deeply about and respond quickly to novel risks.

In addition to encouraging employee reports, companies can look outside their organizations for information

James Day/Gallery Stock

Recognizing a novel risk requires people to suppress their instincts, question their assumptions, and think deeply about the situation.

about novel risks. Swissgrid has joined forces with the Swiss army, the Swiss national police force, and several other federal and state agencies and corporations to develop a real-time national crisis-management platform that can be accessed by all parties involved. Each entity uses the platform to report any issue it learns about, such as a forest fire, an accident triggering a massive traffic jam, or unusual snow conditions or avalanches in the Alps. Risk managers at Swissgrid, connected to the platform, get early visibility into external situations that could potentially interrupt the reliable flow of electricity to customers.

Imagine what if. Companies can also identify potential novel risks indirectly—by looking at what has happened in other industries and countries and then asking themselves, "What if that happens here?"

At Swissgrid the senior risk officer keeps an eye out for unsettling developments like the Swissair bankruptcy and the high-profile cyberattack on the shipping giant Maersk. Following any such event, he schedules an extraordinary-risk workshop attended by senior managers and risk officers from every business unit and by external subject-matter experts. After deliberation, the group creates an action plan that can be deployed should something similar occur in Swissgrid's supply chain. This systematic process helps the company spot potential novel risks and transform them into managed ones.

As Swissgrid's CEO, Yves Zumwald, has noted, "Our business, with individual risks and intricate connections spread across all our units, is too complex for any one individual to fathom. Yet we cannot wait for problems to show up and then solve them like firefighters. [The systems we have put in place] enable us to solve a lot of problems proactively." Those now include many risks that would be complete surprises to most other companies.

RESPONDING TO NOVEL RISKS

For all a company's efforts to anticipate what-ifs, novel risks will still emerge, and companies will not have a script or a playbook for managing them "right of boom," or after disaster has struck. Also, nothing in the backgrounds of operating or risk managers will help them respond quickly and appropriately. In this situation a company needs to make decisions that are (a) good enough, (b) taken soon enough to make a difference, (c) communicated well enough to be understood, and (d) carried out well enough to be effective until a better option emerges. A company has two options for right-of-boom responses:

Deploy a critical-incident-management team. This standard approach to a novel risk—creating a central team to oversee the response—works well when an event has widespread impact but doesn't need a complete, immediate solution.

The team should consist of employees from different functions and levels of the company, external people with relevant expertise, and representatives of stakeholders and partners. For a novel event such as the Covid-19 epidemic, for example, a company's critical-incident team would need people with medical, public health, and public policy expertise, which the firm might not have in-house. For managing the consequences of delays in large-scale product development—for instance, for a new aircraft—the team should work closely with its suppliers. Over time, as the situation changes and new information emerges, the membership of the team may change.

The team deciphers the situation, identifies the most important issues, and establishes priorities among the firm's multiple, and sometimes competing, constituencies and interests. It can delegate specific questions, such as how to access and preserve cash and how to manage key components in the supply chain, to other individuals or subgroups to examine, but the team must maintain responsibility for coordinating all aspects of the response.

The team usually meets at least daily and more often if the event is evolving rapidly. It manages communication within the firm and coaches the CEO on external communications. All communications should be brutally honest about the reality of the situation, highlight clearly what the organization doesn't yet know, provide a rational basis for hope, and empathize with all stakeholders affected by the event.

The discussion dynamics are important. A critical-incident team brings together diverse individuals who may have never met before and might be reluctant to speak candidly among people they don't know, especially those higher up in the organization. The aim is to encourage inquiry, not advocacy, which is why meetings must be psychologically safe gatherings where everyone can offer untested ideas and disagree. *What* is right is far more important than

All communications should be brutally honest about the situation, highlight clearly what the organization doesn't yet know, and provide a rational basis for hope.

The OODA Loop

The OODA loop—observe, orient, decide, act—was devised by a Korean War–era fighter pilot, Colonel John Boyd, who believed that pilots whose OODA loops were faster than those of their adversaries would control air battles. After a novel risk event, a critical-incident team with an OODA loop that outpaces changes in the environment will better control the event's impact on the company.

Initially, the team observes to learn all it can about the situation. The team orients itself by making sense of the situation and identifying its key elements. Members generate options, assess the likely consequences of each, select the best one, and take steps to implement the chosen response—treating the decision not as a permanent commitment to a course of action but as part of an ongoing experiment. The team begins the next OODA loop by observing the event's evolution—particularly how its own actions modified the situation.

who is right. That's partly why someone other than the team's leader should facilitate meetings. By listening rather than speaking, the leader reduces the likelihood that subordinates will defer to their perception of the chief decision-maker's opinion.

Manage the crisis at the local level. Some novel risks don't allow for the luxury of a critical-incident team. Time is of the essence, and details about the situation are difficult to communicate to company headquarters far from where the threat has emerged. In those situations, responses must be delegated to personnel closest to the event.

Take Adventure Travel Agency (not its real name), a Boston-based company offering trips off the beaten track to experienced travelers. It initially employed U.S. tour guides who were familiar with its targeted customers. But the CEO soon learned, painfully, that any trip could involve accidents, illness, and disruptions from extreme weather, natural disasters, political unrest, hotel cancellations, airline delays, and strikes. Novel risks came with the business's territory.

In a lengthy, costly process, the company replaced its American guides with local guides in each country, who had considerable knowledge of their regions and strong local contacts. It empowered the new guides to problem-solve and implement a response to any novel situation that arose during a trip. The company believed that the guides had the best information about challenges that might come up; the best knowledge, connections, and resources to develop creative responses; the best understanding of the tour group's preferences regarding responses; and the ability to put the chosen solution quickly into effect. The company's headquarters assisted them by performing tasks best handled by a central staff (such as rescheduling flights and rebooking hotel reservations).

The travel company's decentralized approach of authorizing operations people to also serve as risk managers departs from established risk management standards. But for a distant novel-risk event requiring an immediate response, centralized risk managers would have limited information about the event, be unaware of local options and preferences, and have little to no ability to rapidly implement a response.

The initial decisions by either a centralized team or a local employee will be speculative, given how little information will be available in an uncertain, dynamic environment. Being perfectly exactly correct cannot be a performance standard. Any response may, in hindsight, have been suboptimal. But the company has no alternative other than to make a quick, "probably approximately correct" decision, learn from it, acquire new information, and act again and again to stay ahead of events. (For more on how to do this, see the sidebar "The OODA Loop.")

RISKS COME IN many forms and flavors. Companies can manage the ones they know about and anticipate. But novel risks—those that emerge completely out of the blue—will arise either from complex combinations of seemingly routine events or from unprecedentedly massive events. Companies need to detect them and then activate a response that differs from standard approaches to managing routine risks. That response must be rapid, improvisational, iterative, and humble, since not every action taken will work as intended.

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John Kuczala

Spotlight

Building Organizational Resilience

To cope—and thrive—in uncertain times, develop scripted routines, simple rules, and the ability to improvise.

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Successful organizations all have well-established routines for getting things done. The task may be as lofty as acquiring a competitor or as prosaic as filling out a time sheet, but if you look closely, you'll find a reliable process to guide you through it. These routines are often taken for granted in stable periods. However, they tend to break down when a company faces high levels of uncertainty or needs to move quickly in a crisis. Organizations scramble to make adjustments on the fly—with varying degrees of success. Before the next crisis hits, it's wise to spend time thinking systematically about the granular nuts-and-bolts processes you use—and to experiment with alternatives.

Researchers have identified three broad approaches to getting work done, and what they've learned can help managers respond more effectively to highly changeable environments. The first approach is the one we've just described: *organizational routines,* which are efficient when work is predictable. The second approach is *simple rules,* or *heuristics*—rules of thumb that help you speed up processes and decision-making and prioritize the use of resources in less-predictable contexts (for example, "We invest only in projects with a projected ROI of 10% or more"). And the third is *improvisation*—spontaneous, creative efforts to

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address an opportunity or a problem (for example, when a team figures out how to do manual production because a factory's automated line has suddenly broken down).

Surprisingly, nobody has ever studied how those different approaches can be used as a tool kit. Yet any organization—or team—will do better if it can move easily among them. People can improvise in the face of a crazy-seeming, unexpected situation, learn from the improvisation, and eventually develop a simple rule based on what they've discovered, for example. Or they can revise an organizational routine after experimenting with new approaches to a particular task. Fluency in all three modes can improve performance and enhance resilience under any circumstances. And if an organization faces extreme uncertainty, that fluency becomes essential. In fact, we believe that the ease with which teams refashion how specific tasks get done—whatever the level of turbulence—is the defining capability of a resilient organization.

We recently had a chance to think more deeply about that hypothesis while writing an article for *Organization Science* about a Mount Everest climb that one of us (Juan) had been lucky enough to take part in. In it we explored how the three approaches had been used on the expedition, how they interacted, and which worked best under what circumstances. To be sure, the expedition involved far more pressure and unpredictability than most HBR readers normally have to deal with. But what we learned can help organizations cope better with whatever challenges they face. And if 2020 has taught us anything, it's that everyone needs to prepare for higher levels of volatility, uncertainty, complexity, and ambiguity.

When to Try Each Approach

Much of the time, organizational routines can guide how work gets done. But if resources are scarce, things are moving fast, or the terrain is unpredictable, simple rules and improvisation should be in the mix.

	Routines (scripted work processes)	**Heuristics** (rules of thumb that help simplify decision-making)	**Improvisation** (spontaneous, ad hoc responses to a problem or opportunity)
EXAMPLE	*"Follow this checklist to prep for surgery."*	*"Prioritize big-ticket client work in a crunch."*	*"Employees must stop working in the office immediately. Where do we start?"*
BEST WHEN	You're in familiar territory.	You need to make decisions faster than usual; existing routines aren't effective.	You're on uncharted ground with a high degree of uncertainty.
CONTEXT	The environment is stable.	Key assumptions remain valid; decision-makers understand the problems they encounter.	Key assumptions no longer hold; decision-makers need to experiment to figure out what will work.

THE RESILIENCE TOOL KIT ON MOUNT EVEREST

The Kangshung Face is the most remote, least explored side of Mount Everest. It's a difficult route to the summit that as of 2020 only three teams had completed successfully. On Juan's expedition a team of six climbers, who had trained together for almost two years, spent 41 days on the mountain. (It was a smaller team, with fewer sherpas and a briefer stay on the mountain, than was typical.) Three climbers reached the summit—one more than the team had thought could manage it—with no serious accidents and with minimal use of oxygen. The challenges that arose along the way offer insights into how a skilled team moves between modes of working as the context changes.

As the climbers, sherpas, and porters settled into base camp, at 17,700 feet, they relied on well-known routines that were suited to relatively benign conditions. These detailed processes increase the efficiency of a climbing team and help keep it safe. They script out how the team sets up camp, prepares backpacks and tools, coordinates shifts and roles for the ascent, and maintains the ropes. Rodrigo Jordán, the expedition leader, led planning sessions every evening and had the final word on the most important decisions.

As the next phase of climbing began, the environment changed in often dramatic ways, and some of the organizational routines broke down. The first big challenge on the route is an uncommonly treacherous 4,000-foot wall of rocks and ice. (It's the reason so few expeditions attempt this side of Everest.) For 12 days the climbers "opened the route" by choosing a path and attaching ropes up the face, going incrementally higher but returning to base camp every night until they were able to establish Camp One, just past the wall. Once the ropes were in place, the following day's climb became faster and safer. The route is technically difficult, and the climbers were always "counting the minutes

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before the next avalanche," in the words of one participant. Normally the expedition leader coordinates this kind of ascent, but a few days in, the climbers realized that Jordán, who was at base camp, didn't have enough information to make timely decisions and that this was putting them at risk.

The team discussed this breakdown in the organizational routine over dinner several days running and eventually developed a simple rule: *The first climber on the rope calls the shots.* That heuristic sped up decision-making by empowering the climber who was leading the ascent at any particular time. It made the group into an essentially flat organization while routes were being opened up. Jordán continued to make all other decisions and to coordinate activities during the evening planning sessions.

Another organizational routine had begun to break down at the start of the climb, when the team was forced to leave 300 pounds of supplies behind because of a disagreement with Chinese authorities. The problem intensified when the team's sherpas were hit by an avalanche. Though they suffered only minor injuries, they were understandably concerned for their safety and negotiated carrying lighter loads. In response to having far fewer supplies than planned, the team developed two simple rules. The first was *Carry only the supplies that the climbers who are going to the next stage need.* (Normally, climbers bring buffer supplies to the upper camps, of which there were three on this expedition.) The second was *Always return to sleep at the lower camp.* This made sense for a number of reasons, the primary one being that less oxygen would be needed at lower camps.

The next stage of the trek, up a long glacier, took 17 days. It went slowly because the climbers were walking through deep powder and reacting to a higher altitude (21,000 to 23,000 feet). This stretch was technically easier than the wall but had hard-to-anticipate crevasses and a higher risk of avalanches. Though the plan was for only two climbers to summit the mountain, during this phase a third member (Juan) turned out to be in better physical shape than expected. He had a brief radio conversation with Jordán, and they decided together that he would join the others in attempting to summit. This improvisation carried risks: Juan didn't have a sleeping bag, so the original two summiters would have to share theirs with him, and because of the diminished supplies, they'd also have to share their oxygen, leaving them somewhat short. But Jordán concluded that the team had a better chance of reaching the top with three climbers than with two. This decision, like most decisions about improvisation, had to be made quickly; there wasn't time to build consensus. (In contrast, groups usually adopt a heuristic only after extensive discussion.) That meant it posed another risk: alienating other members of the team.

How Hospitals Used Routines, Simple Rules, and Improvisation to Deal with Covid-19

During the spring of 2020, when patients suffering from Covid-19 threatened to overwhelm hospitals, health care professionals responded not just with courage but with ingenuity. Stories of their resourcefulness filled the news and social media.

As we look at these reactions to a novel situation, however, we see something else: examples of how people utilized new routines, heuristics, and improvisation to work more quickly and effectively.

New routines. Normal hospital practices were disrupted, but some of them could be rescripted. Emergency rooms have a process for managing patients' arrival and treatment, for example, but patients were flooding in too rapidly as the pandemic spread. Hospitals replaced a multistep indoor admission process with screening patients' temperatures outside the ER building so that people with high fevers would be prioritized.

Doctors and nurses who weren't treating Covid-19 patients swiftly settled into new routines in response to the need for social distancing: They conferred with patients over the phone or by computer rather than in person.

Heuristics. As the crisis intensified, routines needed more than minor adjustments. Doctors and nurses began to rely on heuristics to speed up activities and processes. If it was impossible to treat everyone needing care, they would make a quick triage decision: Admit the patient (if a bed was available); send him or her to another hospital (if one wasn't); or send the patient home (if that person's symptoms were not life-threatening).

At a later stage, caregivers had to make painful choices about which patients would get time on limited ventilators. Hospitals developed heuristics for making those decisions; generally they were based on which patients had the greatest likelihood of surviving (such as younger people).

Improvisation. Over time the resource gap grew larger. Health care workers didn't have enough N95 masks and protective gowns, nor did they have enough beds in their intensive care units. These problems prompted several improvisations. Some nurses and doctors began to reuse masks (aware of the increased risks to themselves). Hospitals repurposed entire floors to expand ICU areas or to treat the more-stable Covid-19 patients, often making the change in just a few days. New York City built a makeshift tent hospital in Central Park and transformed the Javits Convention Center into a field hospital in anticipation of a surge in patients.

The most extreme situations involved the shortage of ventilators. Doctors and nurses, trained to do everything medically possible to save lives, had to adjust to a reality in which that simply wasn't possible. They turned to risky improvisations, like sharing ventilators between two patients.

By the summer, health care workers had developed a better understanding of how to treat Covid-19. The pandemic still presented massive challenges (like the development of a vaccine), but the early-stage experimentation with protocols meant that hands-on care for patients had significantly improved.

In the final, "death zone" stage of the climb, which took five days, the climbers were in a first-ever situation that demanded rapid responses. There were few rehearsed routines or simple rules to fall back on. None of them had ever been at such a high altitude before, and they didn't know how their bodies would react. In situations like this, climbers often improvise. The three climbers began the final ascent carrying ropes because the Hillary Step, a steep, rocky section just before the summit, required them to climb tied together. However, the ropes became too much of a burden for their tired bodies and slowed down one climber. They decided on the spot to simply drop the ropes and continue separately. When the context is uncertain and unforgiving, as it was here, there's no way to know whether you're making the right call. By dropping the ropes, the climbers increased their risk of a bad fall—but also the likelihood that they'd finish the climb. Fortunately, the move paid off when all three reached the summit safely.

WHAT WE LEARNED

When we analyzed our findings from Juan's extensive notes and from videos, diaries, letters, and interviews with the other climbers, we came away with the following observations:

Heuristics and improvisations are triggered by different types of challenges. We saw two major reasons for the adoption of new tools. One was speed: a sharp increase in the rate at which the team had to make decisions. That was the case on the wall, when the team transferred decision-making rights from the expedition leader to the on-site leader. Here, and in other cases where things were happening too quickly, heuristics seemed to offer the best response. They helped the climbers adjust to the faster pace, but they didn't change the underlying principles that guided the expedition. (There was still a designated decision-maker during the route openings, for example, and a rule governing how many supplies to carry in specific circumstances.)

The second trigger was complex, unfamiliar contexts, such as when the climbers experienced the death zone

Organizations that deal with fast-evolving situations—think SWAT teams—know that it pays to practice and prepare for the unexpected.

without knowing how their bodies would react. In those cases the team was more likely to improvise, because some challenges required out-of-the-box, ad hoc solutions that sharply departed from what the team had imagined would take place. Sometimes they were in response to an opportunity (a third climber seemed fit enough to summit). At other times they were in response to a problem (the ropes were too heavy, so they were abandoned). (See the exhibit "When to Try Each Approach.")

The tools are interdependent and dynamic. The lines between routines, simple rules, and improvisation aren't always clear, and one approach can morph into another. For example, under normal circumstances, specific members of a climbing team are assigned to check and maintain the ropes daily. However, the extreme conditions of the Kangshung Face prompted an improvisation: One climber, when descending after a 12-hour climb, stopped for almost an hour to repair the ropes in a section of sharp rocks when he became very concerned about safety. From the base camp the other climbers could see that he had stopped but didn't know why. That night they discussed his improvisation and concluded that the extra safety was worth more than the cost in time spent. They replaced their rope maintenance routines with a simple rule: *If you see a damaged rope, you have to fix it right away.*

In other instances a newly introduced heuristic might prompt an improvisation. As noted earlier, the team developed heuristics around how much to carry and where to sleep, in response to resource constraints. Those rules increased efficiency and maximized speed, but they were also risky. That became apparent late in the climb, when one of a pair of support climbers, who should have gone back to Camp Two for the night, began exhibiting symptoms of hypothermia. The team had to improvise: Both support climbers spent the night in Camp Three, without sleeping bags and oxygen, because the team hadn't brought any extra supplies. (In accordance with a rule established earlier, those were reserved for the climbers who would continue to the summit.) This improvisation worked out, fortunately: The summit team was able to continue its ascent, and the compromised support climber went down to Camp Two safely the next day.

USING THE TOOL KIT

The Covid-19 crisis and the economic havoc it has wrought are harbingers of the extraordinary challenges we're all going to face in coming years. (For a look at health care professionals' adoption of the three approaches during the pandemic, see the sidebar "How Hospitals Used Routines, Simple Rules, and Improvisation to Deal with Covid-19.") Climate change, massive migration flows, and technological advances will all dramatically reshape the social and economic landscape in ways we can't fully anticipate. They will disrupt industries, economies, and nations.

But organizations aren't helpless. They can prepare themselves to cope with novel and uncertain situations, be they existential crises, like a pandemic, or more-familiar situations, like an industry shake-up. By actively training the organization to alter the combination of routines, heuristics, and improvisation on the fly to match the changing requirements of different possible scenarios, leaders can build resilience throughout their organizations. Organizations that regularly deal with fast-evolving situations—think SWAT teams and military commandos—know that it pays to practice and prepare for the unexpected while you have the luxury of time and resources, instead of trying to learn how to adapt in the middle of a storm.

Most organizations are already good at working with routines. Indeed, managers have been trained to focus on efficiency, so they're naturally inclined to codify best practices into organizational routines. Therefore management should focus on helping people add heuristics and improvisations to their tool kits. What we observed in the Everest expedition can serve as a helpful template. Here are some suggestions for getting started:

Analyze which tools you use to get different chunks of work done. The point isn't to do fine-grained process mapping—it's to think at a high level about how you handle work. Such an analysis isn't necessarily straightforward, though, because most work gets broken down into parts that may call for different tools. If you do A/B testing on new product features, for example, you almost certainly have a rigorous organizational routine in place—whereas decisions about what to test may be more open-ended and improvisational. Do your best to build a picture of which approaches are used where, and whether your organization favors a particular one. Then think about whether it's the best choice for most of those tasks. You'll manage a crisis better if you've analyzed and discussed your processes—and done at least some reinvention—before you're in the thick of things.

Question the assumptions behind your routines. Every routine and process is built on a significant number of assumptions. Spend some time figuring out what they are, at least for your key routines, and then think about how you'd operate if they didn't hold. These questions will help:

- What types of decisions do you assume must be handled by high-level managers? How do you envision those decisions being made in a crisis?
- Do you assume that your existing processes have been revised and perfected over time—that they're optimal? Will they hold up in times of duress?
- Where in the flow of work do problems consistently arise? Is there an argument for reshaping that segment or allocating more resources to it? What would happen if you suddenly had to get that chunk of work done much faster?
- Do you assume that organizational resources are allocated well? Would you reapportion them if you suddenly had to respond to a major disruption?

Practice doing more with less. We can't think of any actual crisis that didn't involve resource scarcity of some kind. The Everest climb certainly did. So it makes sense to get used to working lean. Managers can challenge a unit by asking it to achieve an ambitious goal with significantly fewer resources than normal, for example. Or a team can brainstorm about how it would respond if a key resource suddenly became scarce.

Deepen your knowledge of how your work fits into the whole. Organizations tend to ask people to specialize, sticking to narrow tasks or activities. It's efficient, and it fits well with scripted organizational routines. In uncertain times, though, deeper knowledge of how other areas function (perhaps gained through cross-training) makes a group more resilient. Team members develop a better idea of how their work depends on others' work, and vice versa. As a result, when a routine is changed, the larger group's work is less likely to be disrupted.

Invest in building expertise. New heuristics and improvisations may appear spontaneous, but in reality they work best when they rest on a foundation of knowledge and training. The mountain climbers in our study trained much harder than those on other expeditions we have data on, and they did it in the belief that they'd be better prepared to adjust when they needed to.

Identify your priorities. If a crisis is unfolding, red lights and alarms go off everywhere, and managerial attention becomes a very scarce resource. In such situations leaders need to hyperfocus on the metrics that are central to moving the organization through the turmoil. By doing so, they can help everyone tackle the most-pressing problems and concentrate on the activities that are essential to avoiding a collapse; everything else will simply have to wait. This often requires tough trade-offs. The metrics won't be the same in every situation, however, so it's useful to imagine a variety of scenarios and think through what they might specifically require.

Learn to give up control. In a crisis, solutions are not obvious and seldom come from a top-down approach. All organizational brains are needed to solve problems on the spot. If those brains don't feel empowered to act immediately, a problem can quickly get worse. This goes beyond the traditional advice about empowerment, which says that people should be given limited freedom to make decisions in their area. Organizations that survive dangerous times have developed the ability to swiftly delegate authority and decision-making to people with expertise on the front lines.

Here's the beauty of analyzing your routines and practicing new ways to solve problems in anticipation of a crisis: Your organization will become more adept at heuristics and improvisation, which will make it more resilient and resourceful—and better able to cope when uncertainty does reach alarming levels.

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ABOUT THE RESEARCH

This article is based on an ethnographic study of a Mount Everest ascent via one of the mountain's most-technical and least-known routes, the Kangshung Face. We had direct access to the details of the expedition because one of the authors was on it and took extensive notes throughout. We also had access to the diaries of three other expedition members, 12 hours of video footage, 1,250 photographs, and transcriptions of interviews with expedition members. In addition, we reviewed 52 letters written by the members before, during, and after the ascent, together with the planning documents for the trip and the rationale for the team selection.

AUTHOR

Cassie Kozyrkov
Chief decision scientist, Google

To Recognize Risks Earlier, Invest in Analytics

It helps you ask the right questions and learn faster.

You've probably heard business leaders justify their flat-footedness in a crisis by claiming that every organization is flying blind in times of deep uncertainty. But in fact some leaders know precisely where they're going. They understand what's required to chart a course through market turbulence, and they've built organizations with keen situational awareness.

When it comes to developing the ability to figure out where things are heading and respond nimbly to a changing

Spotlight

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environment, nothing is more important than analytics. Unfortunately, in recent years analytics (also known as data mining or business intelligence) has become the unloved stepchild of data sciences, overshadowed by machine learning and statistics. Those two disciplines layer mathematical sophistication on top of a foundation of human intuition, creating an appealing illusion of objectivity and deft steering. Ironically, of the three, analytics is the most essential competency for navigating crises.

Solutions based on AI and machine learning hum along well during stable times but fall apart when disaster strikes. These technologies automate tasks by extracting patterns from data and turning them into instructions. Such models can quickly become obsolete when the inputs to the system change. Analytics, in contrast, alerts you when the rules of the game are changing. Without that kind of a warning, automation solutions can quickly go off the rails, leaving you exposed to exogenous shocks.

Statistics has a similar shortcoming during a crisis. Statisticians help decision-makers get rigorous answers. But what if they're asking the wrong questions? While statistical skills are required to test hypotheses, analysts have the acumen to come up with the right hypotheses in the first place. To attempt statistics without analytics, you'd need great confidence in your assumptions—the kind of confidence that's foolhardy when a crisis pulls the rug out from under you.

Analysts thrive in ambiguity. Their talent is exploration, which makes them particularly good at foreseeing and responding to crises. By searching internal and external data sources for critical information, analysts keep a finger on the pulse of what's going on. They scan the horizon for trends and formulate questions about what's behind them. Their job is to inspire executives with thought-provoking yet qualified possibilities. Once the highest-priority hypotheses have been short-listed by leaders, then it's time to call in a statistician to pressure-test them and separate true insights from red herrings.

During good times, leading organizations build analytics capabilities to strengthen their ability to innovate. Analysts' ability to find clues to such things as shifting consumer tastes can help firms take advantage of opportunities before less-savvy competitors do. When the going gets tough, however, what looked like a nice-to-have innovation booster turns into a must-have safety net. To be sure, some events are impossible to see in advance—the true black swans—but addressing their fallout is a game best played with open eyes.

Unfortunately, it's very hard to cobble together a mature analytics

> During an extreme shock, your historical data sources may become obsolete. Then it doesn't matter how good your information was yesterday. You need new information.

department on short notice. The technical skills that allow analysts to guzzle data with lightning speed merely increase the mass of information they encounter. Spotting a gem in it takes something more. Without domain knowledge, business acumen, and strong intuition about the practical value of discoveries—as well as the communication skills to convey them to decision-makers effectively—analysts will struggle to be useful. It takes time for them to learn to judge what's important in addition to what's interesting. You can't expect them to be an instant solution to charting a course through your latest crisis. Instead, see them as an investment in your future nimbleness.

It also takes time to secure access to the promising data sources analysts need. Ideally, business leaders won't wait for a big disruption to begin building relationships with data vendors, industry partners, and data collection specialists. Bear in mind that in the face of an extreme shock, your historical data sources may become obsolete. If your understanding of the past fails to give you a useful window on tomorrow's world—perhaps because a pandemic has changed everything—it doesn't matter how good your information was yesterday. You need new information. After the 2008 financial crash, for example, banks around the world recognized that there might be an advantage to analyzing nontraditional signals of creditworthiness, such as data from supermarket loyalty cards, but not all players were equally positioned to get access to them.

Additionally, your internal data stores may require special processing before analysts can mine them, so it's worth thinking about hiring supporting data engineers. If analytics is the discipline of making data useful, then data engineering is the discipline of making data usable; it provides behind-the-scenes infrastructure that makes machine logs and colossal data stores compatible with analytics tool kits.

When I began speaking at conferences about the importance of analytics, I found that convincing an audience of its value was the easy part. The mood changed when I explained the catch: Analytics is a time investment. You can't count on getting something useful out of every foray into a data set. To succeed at exploration, your organization needs a culture of no-strings-attached analytics. As the leader, you are responsible for setting the scope (which data sources should be looked at) and the time frame ("You have two weeks to explore this database"). Then you must ensure that analysts aren't punished for coming back empty-handed.

Once business leaders accept that analytics represents an investment that may not immediately pay off, I hit the next stumbling block: the perception that only a large and technologically sophisticated company such as Alphabet can afford it. This is nonsense. In my experience you're more likely to find analytics thriving in start-ups than at well-established behemoths.

Start-ups naturally invest in analytics as they try to navigate a new market, with several generalists taking on a share of the exploratory work. Then as the venture grows, the culture changes. Workers are trusted less and made more accountable for return on their efforts, and overzealous management stifles opportunities for analytics to thrive. Analysts hired into this culture rarely get to enjoy the most interesting part of their work—exploration—and instead serve as human search engines and dashboard janitors. Many quit out of frustration as their potential is squandered.

Creating a culture where analytics flourishes takes thoughtful leadership. As organizations grow toward incumbency, only the most visionary will have the courage to nurture a true analytics department and make sure that business leaders have access to it and are influenced by it. Industries that have been burned by a previous crisis—banking is a good example—are especially likely to invest in analytics and apply it to risk management.

Becoming a leader in analytics takes a commitment to trust your analysts and give them space to do their work. Their job, after all, will be to reveal threats that you never even imagined should be on your radar. That sort of work can't be managed with a stopwatch and a checklist.

Crises such as a pandemic—when no one has the answers, and uncertainty is high—remind us of the importance of asking the right questions. Analytics gives firms an edge in learning and adapting. When the world is suddenly upended, those who can learn the fastest are best positioned to succeed. Smart companies will invest in analytics today to get ahead of whatever is coming tomorrow.

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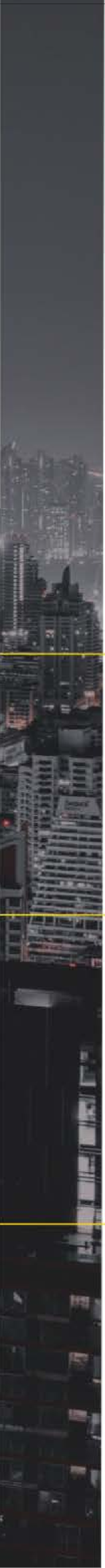

BRAND
CENTRALIZATION
COMPANY

BRANDi®
GOOD TO GREAT

Assuming your brand is on board. This time must be when it is grappling with the turbulence and unpredictable conditions. **“Digital disruption”** is the first challenge faced by brands worldwide, with either higher fiercely competitive market or consumer higher expectation. Additionally, brands are faced with serious **environmental disruption** such as climate change, biodiversity loss, and air pollution that are increasingly affecting lives. According to the World Health Organization, 9 out of 10 people breathe air that exceed safe limits and 24% of all global deaths are linked to the environment which amounts to approximately 13.7 million deaths per year. **COVID-19 is the third disruption** that has revolutionized the way people live. It has upended culture, how people believe or behave, and ultimately has reflected a psychological impact. This sweeping pandemic leads to a living transformation globally. FleishmanHillard's study reveals that more than 70% of consumers say COVID-19 has totally changed their view of the world and their own country. These behaviors definitely leave a significant challenge for brands to act upon.

Such disruptions have undoubtedly produced combinatorial effects on brands as they need to adjust not only to these changes at the operational level but also at the mindset and communication levels.

AOS
ABOVE THE OCEAN STRATEGY

Resilience through Above the Ocean Strategy (AOS)

Changes are now taking place more than at the competition level but at the structual level causing brands to restart and seek their competencies to achieve resilience. We have packaged our latest thinking on business resilience in the form of Above the Ocean Strategy or AOS which doesn’t only promote business growth in the usual world but enables businesses to **redesign the brand-new rules, roles, and relationships** as well as guides businesses to survive and thrive in an unusual world where they also need an unusual path for sustainable success.

BWi
BETTER WORLD INDEX

Measurement through Better World Index (BWi)

Success, however, in this rapidly changing world has neither a single formula nor an absolute answer. Its definition varies from one organization to another as the success of one may not be that of the other. There will always be superstar blue-chips, but not every company strives to be superstars- lots of businesses of all sizes and income statements aspire to offer the best and most rewarding workplaces, the most innovative work teams, the greenest organizational cultures, etc. Today, as business continues to change, more brands are redefining their own success through their own measurement. This keeps them on track and guides them toward their better version (Better Corporate Index) and show them whether they are meeting the global agenda (Better World Index).

COLLABORATIVENESS BLUEPRINT

Partnership through Collaborativeness Blueprint (CoB)

One of the greatest challenges amid the crisis is to extract the saying “the more you think about your own success, the less you will succeed”. Instead of maximizing profits for owners or shareholders and leaving societal and environmental issues to the government, NGOs, or NPOs to resolve, a sector with the highest potential in the capitalism, the business sector, should seize this situation as an opportunity to enhance the ecosystem while boosting business growth. And when the market landscape shifts, the competitive advantages don’t belong to a single party anymore. **The new competitiveness is the competency to collaborate** (collaborativeness) that helps businesses strengthen the whole ecosystem.

BRANDi, a brand-centric management consultancy, believes that business success in the past belonged to those that could make their products or services accessible to the market. However, the next steps towards sustainable success in business is no longer just the availability or accessibility of products or services.

> *“Brands, therefore, need to leverage their competencies and potential to generate **societal and environmental solutions** while delivering products or services that meet customer expectations.”*

For more than 8 years, BRANDi has gained invaluable opportunities to create a positive impact with our clients by helping them tackle significant challenges and discover the path to future growth. Our well-crafted services include decoding values (Purpose), defining culture (People), developing operation (Process), designing solutions (Product and Service), and delivering quick wins (Potential Project).

We have worked with more than 100 brands covering more than 18 industries and remain committed to constantly catalyzing, and generating positive change, whether it is for economic growth, well-being, or environmental enhancement, for the better world and better business. We aim to accomplish it with our people, clients, partners, suppliers, and communities.

If you are looking for an unusual consultancy to help you bold differentiation, build competitiveness, and bring sustainability in today’s unusual world, BRANDi is the right answer for you.

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Our *Work-from-Anywhere* Future

Best practices for all-remote organizations

MANAGING PEOPLE

AUTHOR

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PHOTOGRAPHER **SEJKKO**

BEFORE 2020 A MOVEMENT was brewing within knowledge-work organizations. Personal technology and digital connectivity had advanced so far and so fast that people had begun to ask, “Do we really need to be together, in an office, to do our work?” We got our answer during the pandemic lockdowns. We learned that a great many of us don’t in fact need to be colocated with colleagues on-site to do our jobs. Individuals, teams, entire workforces, can perform well while being entirely distributed—and they have. So now we face new questions: Are all-remote or majority-remote organizations the future of knowledge work? Is work from anywhere (WFA) here to stay?

Without question, the model offers notable benefits to companies and their employees. Organizations can reduce or eliminate real estate costs, hire and use talent globally while mitigating immigration issues, and, research indicates, perhaps enjoy productivity gains. Workers get geographic flexibility (that is, live where they prefer to), eliminate commutes, and report better work/life balance. However, concerns persist regarding how WFA affects communication, including brainstorming and problem-solving; knowledge sharing; socialization, camaraderie, and mentoring; performance evaluation and compensation; and data security and regulation.

To better understand how leaders can capture the upside of WFA while overcoming the challenges and avoiding negative outcomes, I’ve studied several companies that have embraced all- or majority-remote models. They include the United States Patent and Trademark Office, or USPTO (which has several thousand WFA workers); Tulsa Remote; Tata Consultancy Services, or TCS (a global IT services company that has announced a plan to be 75% remote by 2025); GitLab (the world’s largest all-remote company, with 1,300 employees); Zapier (a workflow automation company with more than 300 employees, none of them colocated, around the United States and in 23 other countries); and MobSquad (a Canadian start-up that employs WFA workers).

The Covid-19 crisis has opened senior leaders’ minds to the idea of adopting WFA for all or part of their workforces. In addition to TCS, companies including Twitter, Facebook, Shopify, Siemens, and State Bank of India have announced that they will make remote work permanent even after a vaccine is available. Another organization I’ve studied is BRAC, one of the world’s largest NGOs, which is headquartered in Bangladesh. Forced into remote work this year, it is deciding what work model to adopt for the long term.

If your organization is considering a WFA program, transition, or launch, this article can provide a guide.

A SHORT HISTORY OF REMOTE WORK

A large-scale transition from traditional, colocated work to remote work arguably began with the adoption of work-from-home (WFH) policies in the 1970s, as soaring gasoline prices caused by the 1973 OPEC oil embargo made commuting more expensive. Those policies allowed people to eschew physical offices in favor of their homes, coworking spaces, or other community locations, such as coffee shops and public libraries, for occasional days, on a regular part-time basis, or full-time, with the expectation that they would come into the office periodically. Workers were often also given control over their schedules, allowing them to make time for school pickups, errands, or midday exercise without being seen as shirking. They saved time by commuting less and tended to take fewer sick days.

Thanks to the advent of personal computers, the internet, email, broadband connectivity, laptops, cell phones, cloud computing, and videotelephony, the adoption of WFH increased in the 2000s. As the researchers Ravi S. Gajendran and David A. Harrison note in a 2007 article, this trend was accelerated by the need to comply with, for example, the Americans with Disabilities Act of 1990 and mandates of the U.S. Equal Employment Opportunity Commission.

Research has shown performance benefits. A 2015 study by Nicholas Bloom and coauthors found that when employees opted in to WFH policies, their productivity increased by 13%. When, nine months later, the same workers were given a choice between remaining at home and returning to the office, those who chose the former saw even further improvements: They were 22% more productive than they had been before the experiment. This suggests that people should probably determine for themselves the situation (home or office) that fits them best.

In recent years many companies have allowed more employees to work from home. It’s true that several prominent corporations, including Yahoo and IBM, had reversed course before the pandemic, asking their employees to resume colocated work in a bid to spur more-effective collaboration. But other organizations—the ones I study—moved toward greater geographic flexibility, allowing some if not all employees, new and old, to work from anywhere, completely untethered to an office. The USPTO is a prime example. Its leaders launched a WFA program in 2012, building on an existing WFH program that mandated workers' physical presence at headquarters, in northern Virginia, at least one day a week. The WFA program, in contrast, requires employees to spend two years at HQ followed by a WFH phase, after which they may live anywhere in the continental United States, provided they're willing to pay out of pocket for periodic travel back to headquarters (totaling no more than 12 days a year). The patent examiners in the program dispersed all across the country, choosing to move closer to family, to better climates, or to places with a lower cost of living.

Most companies that offer WFH or WFA options keep some workers—at the USPTO it's trainees and administrators—at one or more offices. In other words, they are hybrid-remote operations. But the experiment with all-remote work forced by Covid-19 has caused some of these organizations to strategically move toward majority-remote, with fewer than 50% of employees colocated in physical offices. TCS, for example, which employs close to 418,000 people who were traditionally located either on campuses or at client sites around the world, has decided to adopt a 25/25 model: Employees will spend only 25% of their working hours in the office, and at no point will the company have more than 25% of workers colocated. TCS plans to complete this transition in five years.

Even before the crisis, a smaller group of companies had taken this trend a step further, eliminating offices altogether and dispersing everyone, from entry-level associates to the CEO. GitLab embraces this model at scale: Its remote workers span sales, engineering, marketing, personnel management, and executive roles in more than 60 countries.

EXPLORING THE BENEFITS

I've spent the past five years studying the practices and productivity trends of WFA companies. The upsides—for individuals, companies, and society—are clear. Let me outline them.

For individuals. One striking finding is how greatly workers benefit from these arrangements. Many told me that they regard the freedom to live anywhere in the world as an important plus. For those in dual-career situations, it eases the pain of looking for two jobs in a single location. One patent examiner told me, "I'm a military spouse, which means I live in a world with frequent moves and personal upheavals that prevent many spouses from pursuing lasting careers of their choice. WFA has been the most meaningful telework program I have encountered. It allows me to follow my husband to any U.S. state at a moment's notice and pursue my own aspirations to contribute to my home and society."

Some cited a better quality of life. "WFA has allowed my children to see their grandparents on a regular basis and play with their cousins," I heard from another USPTO employee. "Being closer to family has improved my overall happiness." Others talked about proximity to medical care for children, accommodating their partners, and the ability to enjoy warmer weather, prettier views, and greater recreational opportunities. Millennials in particular seemed captivated by the idea that WFA would allow them to become "digital nomads," traveling the world while still employed. Before the pandemic-related restrictions, some companies, such as Remote Year, were aiming to facilitate that lifestyle, and

IDEA IN BRIEF

THE SHIFT

The Covid-19 lockdowns proved that it is not only possible but perhaps preferable for knowledge workers to do their jobs from anywhere. Will this mark a long-term shift into all-remote work?

BENEFITS AND CHALLENGES

Studies show that working from home yields numerous benefits for both individuals and their organizations, most notably in the form of enhanced productivity and engagement. But when all or most employees are remote, challenges arise for communication, knowledge sharing, socialization, performance evaluation, security, and more.

THE RESEARCH

As more companies adopt work-from-anywhere policies, best practices are emerging. The experiences of GitLab, Tata Consultancy Services, Zapier, and others show how the risks associated with this type of work can be overcome.

ABOUT THE ART

Sejkko grew up between Portugal and Venezuela. His photographs capture the traditional houses of Portugal yet often convey a sense of tropical vibrancy and childhood nostalgia. Sometimes they look lost or out of place; other times they seem warm and self-contained.

some countries, such as Estonia and Barbados, have created a new class of employment visa for such workers. As one patent examiner said, "Participation in [WFA] is outstanding for work/life balance. I live in my favorite part of the country...I have more time to relax."

Cost of living was another frequent theme. Because the USPTO did not adjust salaries according to where employees chose to live, one patent examiner told me, "I was able to buy a large home in my new location for about a quarter of the cost in northern Virginia." Some localities, such as the state of Vermont and the city of Tulsa, Oklahoma (where Tulsa Remote is located), have made a concerted effort to lure remote workers, touting the local community and lower costs. In San Francisco the average rent on a two-bedroom apartment is $4,128; in Tulsa it's a mere $675.

WFA also helps knowledge workers deal with immigration issues and other restrictions on their ability to secure good jobs. William Kerr, Susie Ma, and I recently studied MobSquad, whose coworking spaces in Halifax, Calgary, and other cities enable talented knowledge workers to bypass the onerous U.S. visa and green card system and instead obtain fast-track work permits from Canada's Global Talent Stream. Thus they can continue serving companies and clients in the United States and other countries while living and paying taxes in Canada.

One engineer we interviewed had come to the United States after graduating from high school in his home country at the age of 12. At age 16 he enrolled at a U.S. university, where he acquired degrees in math, physics, and computer science in three years. By age 19 he was employed at a medical tech company through the optional practical training (OPT) program, but he failed to get an H-1B visa and faced deportation. MobSquad moved him to Calgary, and he kept working with the same employer.

In interviews with female employees at BRAC, I learned that women whose careers were previously limited by cultural taboos against traveling to remote places or delegating housework had been helped by WFA. As one explained, "Earlier I had to wake up early in the morning and cook three meals for my intergenerational family. Working remotely has allowed me to spread out the household work, get extra sleep, and be more productive."

For organizations. My research also uncovered ample organizational benefits from WFA programs. For example, they increase employee engagement—an important metric of success for any company. In 2013, a year after it instituted work from anywhere, the USPTO was ranked highest on the Best Places to Work in the Federal Government survey.

Workers are not only happier but also more productive. When Cirrus Foroughi, Barbara Larson, and I evaluated the USPTO's transition from WFH to WFA, the timing of which happened at random for workers who'd chosen that path, we found that WFA boosted individual productivity by 4.4%, as measured by the number of patents examined each month. The switch also led examiners to exert greater effort. Of course, further research is needed to determine whether WFA generates similar benefits for workers performing different tasks in other team structures and organizations.

Some gains generated by WFA are more obvious. For example, fewer in-office employees means smaller space requirements and reduced real estate costs. The USPTO estimated that increases in remote work in 2015 saved it $38.2 million. WFA programs also hugely expand an organization's potential talent pool to include workers tied to a location far from that of the company. That's a primary reason for the adoption at TCS of what it calls secure borderless workspaces, or SBWs: It wants to ensure that every project is staffed by employees with the right skills, no matter where they are. Rajesh Gopinathan, the CEO, describes this model as "talent on the cloud," while another senior executive says it will potentially allow the company to tap niche labor markets, such as Eastern Europe, that have a large supply of skilled financial analysts and data scientists.

Finally, WFA can reduce attrition. Some USPTO workers explained that because they loved their preferred locales but also recognized the limited job opportunities there, they were motivated to work harder and stay longer with the Patent Office. Leaders at GitLab, too, pointed to employee retention as a positive outcome of the company's decision to be all-remote. The net benefit, they believe, including the productivity increases and property cost savings they've seen, equals $18,000 a year for each worker.

For society. WFA organizations have the potential to reverse the brain drain that often plagues emerging markets, small towns, and rural locations. In fact, Tulsa Remote was established to attract diverse, energetic, community-minded newcomers to a city still healing from historic race riots a

Millennials seemed captivated by the idea that working from anywhere would allow them to become “digital nomads,” traveling the world while still employed.

century ago. With an offer of $10,000 to relocate to Tulsa, the company attracted more than 10,000 applications for just 250 slots from 2019 to 2020. Obum Ukabam was one of the workers chosen. When he's not busy with his day job as a marketing manager, he mentors and coaches a local high school debate team. Talented newcomers of varied ethnicities are arguably making the city more multicultural. Meanwhile, the transitions at the USPTO and TCS have brought many people back to their hometowns.

Remote work helps the environment as well. In 2018 Americans' commute time averaged 27.1 minutes each way, or about 4.5 hours a week. Eliminating that commute—particularly in places where most people commute by car—generates a significant reduction in emissions. The USPTO estimates that in 2015 its remote workers drove 84 million fewer miles than if they had been traveling to headquarters, reducing carbon emissions by more than 44,000 tons.

ADDRESSING THE CONCERNS

The office—with its meeting rooms and break areas and opportunities for both formal and informal interaction—has been a way of life for so long that it's hard to imagine getting rid of it. And legitimate hurdles exist to making all-remote work not only manageable but successful. However, the Covid-19 all-remote experiment has taught many knowledge-work organizations and their employees that with time and attention, those concerns can be addressed. And in the companies I've studied, several best practices are emerging.

Communication, brainstorming, and problem-solving. When workers are distributed, synchronous communication becomes more difficult. Tools such as Zoom, Skype, Microsoft Teams, and Google Hangouts can help for those working in the same or similar time zones but not for those spread farther apart. In research with Jasmina Chauvin and Tommy Pan Fang, I found that when changing to or from daylight saving time caused a one- to two-hour reduction in business-hour overlap (BHO) between offices of a very large global corporation, the volume of communication fell by 9.2%, primarily among production workers. When BHO was greater, R&D staffers conducted more unplanned synchronous calls. Group meetings are even harder to schedule. Nadia Vatalidis of GitLab's People Operations group says that having team members in Manila, Nairobi, Johannesburg, Raleigh, and Boulder made finding a time for their weekly group call nearly impossible.

WFA organizations must therefore get comfortable with asynchronous communication, whether through a Slack channel, a customized intracompany portal, or even a shared Google document in which geographically distributed team members write their questions and comments and trust that other team members in distant time zones will respond at the first opportunity. One benefit to this approach is that employees are more likely to share early-stage ideas, plans, and documents and to welcome early feedback; the pressure to present polished work is less than it would be in more formal, synchronous team meetings. GitLab calls this process blameless problem-solving. The company's leaders note that employees accustomed to a culture of emails, phone calls, and meetings may struggle to change old habits; they solve that problem with training during onboarding and beyond. At Zapier, in a program called Zap Pal, each new hire is matched with an experienced buddy who sets up at least one introductory Zoom call and continues to check in throughout the first month. For synchronous brainstorming the company uses video calls and online whiteboards such as Miro, Stormboard, IPEVO Annotator, Limnu, and MURAL but also urges employees to use asynchronous means of problem-solving through Slack channel threads.

Knowledge sharing. This is another challenge for all-remote or majority-remote organizations. Distributed colleagues can't tap one another on the shoulder to ask questions or get help. Research by Robin Cowan, Paul David, and Dominique Foray has postulated that much workplace knowledge is not codified (even when it can be) and instead resides "in people's heads." This is a problem for all organizations, but much more so for those that have embraced WFA. The companies I've studied solve it with transparent and easily accessible documentation. At GitLab all team members have access to a "working handbook," which some describe as "the central repository for how we run the company." It currently consists of 5,000 searchable pages. All employees are encouraged to add to it and taught how to create a new topic page, edit an existing one, embed video, and so forth. Ahead of meetings, organizers post agendas that link to the relevant sections to allow invitees to read background information and post questions. Afterward recordings of the sessions are posted on GitLab's YouTube channel, agendas are edited, and the handbook is updated to reflect any decisions made.

Employees may see the extra work of documentation as a "tax" and balk at the extremely high level of transparency necessary for a WFA organization to thrive. Thorsten Grohsjean and I have argued that senior managers must set

Work-from-anywhere organizations have the potential to reverse the brain drain that often plagues emerging markets, small towns, and rural locations.

an example on these fronts by codifying knowledge and freely sharing information while explaining that these are necessary trade-offs to allow for geographic flexibility.

A related idea is to create transcripts, publicly post slides, and record video seminars, presentations, and meetings to create a repository of such material that individuals can view asynchronously at their convenience. For its 2020 annual meeting, which was forced by the pandemic to go virtual, the Academy of Management curated 1,120 prerecorded sessions, arguably expanding the flow of knowledge to scholars—especially those in emerging markets—far more than would have been possible at the in-person event, which typically happens in North America.

Socialization, camaraderie, and mentoring. Another major worry, cited by managers and workers alike, is the potential for people to feel isolated socially and professionally, disconnected from colleagues and the company itself, particularly in organizations where some people are co-located and some are not. Research by Cecily D. Cooper and Nancy B. Kurland has shown that remote workers often feel cut off from the information flow they would typically get in a physical office. Without in-person check-ins, managers may miss signs of growing burnout or team dysfunction. Even with videoconferencing that allows for reading body language and facial expressions, the concern is that virtual colleagues are less likely to become close friends because their face-to-face interactions are less frequent. As GitLab's technical evangelist Priyanka Sharma put it, "I was very nervous when I was first thinking of joining, because I was very social in the office. I worried that I would be so lonely at home and wouldn't have that community feel." Houda Elyazgi, a marketing executive on the Tulsa Remote team, expressed similar sentiments: "Remote work can be very isolating, especially for introverts. You almost have to create an intentional experience when you're socializing with others. And then you have to be 'on' all the time, even when you're trying to relax. That's taxing."

In my research I've seen a range of policies that seek to address these concerns and create opportunities for socialization and the spreading of company norms. Many WFA organizations rely on technology to help facilitate virtual watercoolers and "planned randomized interactions," whereby someone in the company schedules groups of employees to chat online. Some use AI and virtual reality tools to pair up remote colleagues for weekly chats. For example, Sike Insights is using data on individual communication styles and AI to create Slackbot buddies, while eXp Realty, an all-remote company I'm currently researching, uses a VR platform called VirBELA to create a place for distant team members to gather in avatar form.

Sid Sijbrandij, a cofounder and the CEO of GitLab, told me, "I know at Pixar they placed the restroom centrally so people would bump into each other—but why depend on randomness for that? Why not step it up a notch and actually organize the informal communication?" These "mixers" often include senior and C-suite executives. When I described them to my HBS colleague Christina Wallace, she gave them a nice name: *community collisions.* And companies have always needed to manufacture them: Research dating back to Thomas J. Allen's work at MIT in the 1970s shows that workers colocated on the same "campus" may not experience serendipitous interactions if they are separated by a wall, a ceiling, or a building.

When it comes to interaction between people at different hierarchical levels, my research has revealed two problems with straightforward solutions. Iavor Bojinov, Ashesh Rambachan, and I found that the senior leaders of a global firm were often too stretched to offer one-on-one mentoring to virtual workers. So we implemented a Q&A process whereby workers posed questions through a survey and leaders responded asynchronously. Senior managers at another global firm told me that they had difficulty being themselves on camera. Whereas young remote workers were "living their lives on Instagram," their older colleagues found virtual engagement harder. The company implemented coaching sessions to make those executives more comfortable on Microsoft Teams.

Another solution to the socialization problem is to host "temporary colocation events," inviting all workers to spend a few days with colleagues in person. Prior to Covid-19, Zapier hosted two of those a year, paying for employee flights, accommodation, and food; giving teams an activities budget; and sending people home with $50 to use on a thank-you gift for their loved ones. Carly Moulton, the company's senior communications specialist, told me, "Personally, I have made a lot of friendships with the people I travel to and from the airport with. The event managers will put us into random groups based on what time you arrive and depart. I've always been with people I don't normally work with, so it's nice to have a dedicated time when you have to make conversation."

Finally, at the USPTO, I learned another way to create camaraderie. Several WFA examiners have voluntarily created "remote communities of practice" so that a handful of them can get together periodically. A group living in North Carolina, for example, decided to schedule meetings on a golf course to socialize, discuss work, and problem-solve together. Another manager created a "virtual meal" by ordering the same pizza for delivery to the homes of all remote direct reports during a weekly team call.

Performance evaluation and compensation. How can you rate and review employees you're never physically with, particularly on "soft" but important metrics such as interpersonal skills? All-remote companies evaluate remote workers according to the quality of their work output, the quality of virtual interactions, and feedback from clients and colleagues. Zapier, for example, uses Help Scout for customer support replies; a feature of this software is that customers can submit a "happiness score" by rating the response as "great," "OK," or "not good."

In the spring and summer of 2020, as groups suddenly transitioned to remote work, I was asked whether managers should use software to track worker productivity and prevent shirking. I am very much opposed to this Orwellian approach. The USPTO addressed claims of "examiner fraud" and "attendance abuse" in its WFA program following a review by the U.S. Commerce Department's Office of the Inspector General. Those claims involved either overreporting of hours worked or shifts in the time logs of completed work, such as backloading at the end of a calendar quarter—neither of which related to the metric on which performance was measured: the number of patents examined. Nevertheless, from then on, all USPTO teleworkers had to use organizational IT tools, such as logging in to a virtual private network (VPN), having a presence indicator turned on, and using the same messaging services. But when we compared data from before and after that intervention, we found that it had no effect on average output.

How to set compensation for workers who work from anywhere is an active and interesting debate. As mentioned, it's a benefit to be able to reside in a lower-cost-of-living locale while earning the income one would in a more expensive one. But that's conditional on the company's not adjusting wages according to where a worker lives, as was the case at the USPTO. Matt Mullenweg, the founder of Automattic (parent of WordPress), another all-remote company, told me that its policy is to pay the same wages for the same roles, regardless of location. But GitLab and other companies do

All-remote companies do have to work harder to protect employee, corporate, and customer data. Some use predictive analytics, data visualization, and computer vision.

have different pay for different geographies, taking into account the experience of the worker, the contract type, and the task being performed. Although research is needed on which approach is optimal, it's possible that companies that tie wages to location will lose high-quality WFA workers to rivals that don't. Another pertinent issue is whether to pay WFA workers in the currency of the country where the organization is incorporated or the local one, in part to ensure consistent wages across locations over time given exchange-rate fluctuations.

Data security and regulation. Several managers told me that cybersecurity was a big area of focus for WFA programs and organizations. "What if the WFA worker takes photographs of client data screens and sends them to a competitor?" one asked. The CIOs of some companies with remote-work policies said another key concern was employees' use of personal, less-protected devices for work at home.

It's true that all-remote companies have to work harder to protect employee, corporate, and customer data. As TCS transitions to a majority-remote model, it has moved from "perimeter-based security" (whereby the IT team attempts to secure every device) to "transaction-based security" (whereby machine learning algorithms analyze any abnormal activities on any employee laptop). MobSquad has replicated its client security infrastructure for WFA workers, and employees work on clients' cloud, email, and hardware in its offices for security reasons. All-remote and majority-remote organizations I have studied are experimenting with a wide range of solutions to protect client data using predictive analytics, data visualization, and computer vision.

Transitioning to an all-remote or a majority-remote organization sometimes requires jumping regulatory hurdles as well. At the onset of the pandemic, when TCS was forced to become all-remote, it had to work with NASSCOM (India's National Association of Software and Service Companies) and the Indian authorities to change laws overnight so that call center staffers could work from home. Other laws had to be tweaked so that TCS workers could take laptops and other equipment out of physical offices located in India's "special economic zones." Irfhan Rawji, the founder and CEO of MobSquad, had to work closely with the Canadian government to ensure that the economic migrants chosen by the company to move to Canada could receive their expedited work permits and be integrated into its model. Any all-remote organization thinking about hiring talent globally has to consider local labor laws as they relate to hiring, compensation, pensions, vacation, and sick leave.

IS THIS RIGHT FOR YOUR ORGANIZATION?

Of course, WFA may not be possible at this time for some organizations, such as manufacturing companies—though that could change with advances in 3D printing, automation, digital twins, and other technologies. However, with the right strategy, organizational processes, technologies, and—most important—leadership, many more companies, teams, and functions than one might have thought could go all or mostly remote. My ongoing research with Jan Bena and David Rowat suggests, for example, that start-up knowledge-work companies, particularly in the tech sector, are well positioned to adopt a WFA model from their inception. Take the all-remote eXp Realty: We found that lower real estate, utility, and other overhead costs may mean a higher valuation for the company if and when its founders exit the start-up.

My studies of the USPTO and TCS indicate that large and mature organizations, too, can successfully transition to a hybrid or a majority-remote regime. The question is not whether work from anywhere is possible but what is needed to make it possible. The short answer: management. "If all senior leaders are working from an office, then workers would be drawn to that location to get face time," one all-remote middle manager told me. But if leaders support synchronous and asynchronous communication, brainstorming, and problem-solving; lead initiatives to codify knowledge online; encourage virtual socialization, team building, and mentoring; invest in and enforce data security; work with government stakeholders to ensure regulatory compliance; and set an example by becoming WFA employees themselves, all-remote organizations may indeed emerge as the future of work.

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MANAGING YOURSELF

How to Develop Your Leadership Style

Concrete advice for a squishy challenge

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MANAGING YOURSELF

Few things are more frustrating for talented professionals than hitting a ceiling in their careers because they lack the appropriate leadership style.

A boss senses that something is missing in a person's tool kit but can't put a finger on exactly what it is or how the person can improve. The boss says something like "You're lacking important intangibles" or "You need more gravitas" but fails to provide specific advice or tools for improving.

It is equally frustrating to watch people with mediocre technical skills move up the ladder quickly because they have an exceptional leadership style. Bosses defend such promotions by emphasizing the employees' soft skills, calling them "poised," "confident," and "dynamic."

The truth is that these things matter: A great leadership style can make people appear more competent than they truly are, and a poor style can drag down a superior skill set. So how can aspiring executives improve their leadership style?

First, it's important to understand that style is distinct from personality. The latter is immutable; it's who you are on the inside. Style is best described by what you do, how often, and when. More than 30 years ago, the sociolinguist Howard Giles and colleagues first identified a set of behaviors, or social markers, that we all use to express ourselves and by which we evaluate others. These markers are a language we learn in childhood, as we begin to see that people behave differently depending on whether they hold status or not. Older siblings may bark at you for the remote control, for example,

IDEA IN BRIEF

THE PROBLEM
Bosses often sense that something is lacking in an employee's tool kit but can't put a finger on what it is. They say something like "You're missing important intangibles" or "You need more gravitas" but fail to provide advice or guidance.

THE RESEARCH
What they're talking about is leadership style. In every interaction, we send signals to others about our power and status. The more consistent we are in our signals, the more distinctive our style becomes.

THE APPROACH
This practical guide offers concrete advice for developing a dynamic and effective leadership style, including tips such as what volume and pace to use in your speech, whether to take notes in a meeting, and how and when to interrupt others.

MANAGING YOURSELF

but behave obsequiously to parents when they want to borrow the car. Social markers can be expressed through language, nonverbal communication (such as body language), or context setting (sitting at the head of the table, for instance). Your choice of markers determines how others view you.

Through our own academic research and a combined 30 years of proprietary research, including engagements with more than 12,000 leaders in our executive coaching practice, we have identified the markers most commonly used in the workplace to express status. (See the exhibit "A Guide to Leadership Markers.") Together, they make up leadership style.

The signals we send to others about our status—or lack thereof—fall into two categories: power and attractiveness. Neither set of markers is inherently good or bad. Powerful markers are associated with expressions of confidence, competence, charisma, and influence but also arrogance, abrasiveness, and intimidation. Examples include interrupting others and grabbing a pen off someone's desk without permission. Attractiveness markers are related to expressions of agreeableness, approachability, likability but also diffidence, lack of confidence, and submissiveness. Examples include holding the door for someone and favoring questions over statements. People with powerful styles often view more-attractive colleagues as weak. People with attractive styles tend to view powerful colleagues as rude.

The more consistently we express ourselves using the same markers, the more distinctive our style becomes. When a colleague gives the impression of being arrogant, for example, it's most likely because he uses a small set of powerful behaviors consistently. Or when a manager offers an appraisal such as "Kristin simply does not have a seat at the table with her peers," that usually means she uses too many attractiveness markers—perhaps she never states her views publicly, or she speaks so softly that people ask her to repeat what she said. Change the frequency or mix of these markers, and others' impressions also change.

Leadership Presence

We all have a particular set of markers that we default to in neutral situations or when the social context is unclear. This can be called our natural style. We behave more

A Guide to Leadership Markers

The signals used to communicate status fall into two categories.

	POWERFUL	ATTRACTIVE
STATUS MARKERS	More formal	More informal
	Nondeferential address	Deferential address
	Detached responses	Empathetic responses
	Expanded personal space	Respectful of others' personal space
	Interruptions and talk-overs	Respectful conversational turns
	Abrupt topic shifts	Gradual topic shifts
	Directive gestures (*finger-pointing, head-shaking*)	Acceptance gestures (*head-nodding, shoulder-dropping*)
	Less polite	More polite
	Little to no note-taking	Extensive note-taking
	Inattentiveness (*ignoring others, wandering eyes*)	Attentiveness (*engaging with all senses, especially eyes*)
NONVERBAL STYLE	Backward leans	Forward leans
	Physical distance	Physical closeness
	Eye contact when speaking	Eye contact when listening
	Averted gaze when listening	Averted gaze when speaking
	Tendency to stare	Tendency to break eye contact
	Serious expressions	Happy expressions
	Controlled movements	Natural movements
	Talking while moving away	Body square while talking
VERBAL STYLE	Longer speech duration	Shorter speech duration
	Faster speech rate	Slower speech rate
	Louder volume	Softer volume
	More direct	More indirect
	Declarative statements	Questions
	Fewer nonfluencies (*um, well, you know*)	More nonfluencies and pauses
	Intense words	Everyday words
	Technical jargon	Personal idioms
	Careful pronunciation	Relaxed pronunciation
	Fewer hedges and qualifiers (*I guess*)	More hedges and qualifiers
	Exclusive language (*I, me, my*)	Inclusive language (*we, ours*)
	More humor/sarcasm	Less humor/sarcasm

powerfully relative to our natural style when we feel we have the status (for example, we are the more senior, educated, experienced, technical, or connected person in a workplace interaction). We behave more attractively relative to our natural style when we are the more junior or less-experienced person.

Most people's natural style falls into one of five categories along a spectrum: powerful, lean powerful, blended, lean attractive, and attractive. Few people favor the extremes, instead leaning to one side or the other. A truly blended style is rare and involves an equal use of both power and attractiveness markers. A blended style can be best summed up as having "presence." Leaders who are praised for their polish and gravitas have a deft ability to adopt the right markers to suit the situation.

Our research on blended leadership styles is similar in concept to that of social psychologist Amy Cuddy on warmth and competence. But whereas Cuddy and colleagues generally advise leaders to first project warmth to gain trust and then display their competence to gain credibility, we believe that power and attractiveness should be dynamic. Some situations will call for a leader to exhibit powerful markers from the outset; some will call for a more attractive approach throughout. Leaders often need to tweak their style multiple times in a day—sometimes in the course of a single situation. In one meeting, a leader may need to gain the respect of her peers by projecting subject matter expertise and strong advocacy. But in the next meeting, she may want to be seen as a collaborative partner and will choose to lean attractive by listening attentively and asking more questions.

Cuddy and others instruct leaders to focus on how they *feel* (feeling strong will help you project strength, and feeling warm will help you project warmth). Our work with executives focuses on their *actions* and *behaviors.* Power and attractiveness are determined by what you display toward others, regardless of how you feel on the inside. For instance, you may be very nervous going into a large presentation, but by consciously favoring power markers, you can project confidence, and your audience will be none the wiser.

In our work, we have observed thousands of leaders who have successfully experimented with markers, created a blended style, and reaped professional rewards as a result. Some developed a blended style early in their work lives; those leaders are the "naturals." But others struggled to move up the ladder and learned to modify their behavior—often through painful trial and error. The learning curve can be

ABOUT THE ART

While on a photo shoot in Spain, Julia Marie Werner found a homeless dog looking for food and brought him back home with her to Hamburg. Noticing how he resembled a brave lion, she crafted a mane and documented him conquering his new adopted city.

steep, but we believe that any leader can achieve a blended style by following several steps.

Know thyself. To balance powerful and attractive markers, you must first diagnose where you fall on the leadership style spectrum. Often, executives can read between the lines when they receive feedback from managers, peers, romantic partners, or even their own children. Comments such as "You're too nice" and "You need to speak up" might suggest a tendency toward attractive markers. Comments such as "You're intimidating" or "You don't listen to me" might suggest an overly powerful style. There's no shortage of people around you who can provide helpful insight; just ask them.

If you're unsure where you fall on the spectrum, keep a list of markers in front of you during various interactions and check off the ones you use. Which column ends up with more check marks? As more meetings move online because of the pandemic, it is an ideal time to try recording video meetings and assessing your behavior after the fact.

Experiment with various markers. Once you have a sense of where you fall on the spectrum, begin to experiment with markers to try to move toward a more-blended style. As a start, pick one verbal and one nonverbal marker and find a way to use both during an interaction. This may feel foreign at first; rehearsing with a friend, mentor, or coach can help make the new behaviors more familiar.

As you become more adept, add to your repertoire. We suggest a "pick and mix" approach—taking a selection of powerful and attractive markers and experimenting with them. Consider in advance how you want to be seen in a given situation and then choose markers that reinforce

Emulating the style of others or flexing your own in new ways does not make you inauthentic; it means you're growing as a leader.

The Culture Effect

The interpretation of style markers can vary significantly by culture, context, and industry. A behavior that is considered a power marker in one situation may be considered attractive in another. For example:

Eye contact: In the United States, making eye contact with managers senior to you is often seen as a marker of confidence. The same behavior in Brazil is seen as appropriately deferential (and not making eye contact is considered rude). In Japan, it is viewed as insubordinate and disrespectful. In all three contexts eye contact is a key marker of status, yet it is interpreted differently in each.

Attire: How one dresses is a universal marker of status and influence. In some African countries wearing tribal dress is a power marker for both men and women. In the United States, people's attire is judged according to the norms of the business. A tech founder entering a meeting with investment bankers (most likely all wearing suits) in a T-shirt and jeans is displaying a power marker. An applicant for a low-level service position who arrives in a suit is displaying an attractive marker by showing an eagerness to impress.

Note-taking: In the United States, note-taking in meetings with senior leaders or clients can be perceived as too deferential. In contrast, in South Korea, *not* taking notes when speaking with senior leaders may be construed as disrespectful, suggesting that you do not think what they're saying is important or worth remembering.

Seating: In Western cultures, sitting at the head of the table for a conference or a meal is considered a power move. The same holds true in Japan, but with additional intricacies. As a rule, the area of a room closest to the entrance is where the *shimoza*, or "bottom seat," is located. The area closest to the *tokonoma* (a formal alcove for calligraphy or flowers) is the *kamiza*, or "highest seat." In the absence of a formal tokonoma, a window—or simply the seat farthest from the entrance—signifies the highest position. The guest of honor sits in the kamiza, and the host and other guests seat themselves on downward, toward the shimoza.

that style. If you want to be seen as a trusted adviser, lean attractive. If you want to be seen as a respected adversary, use mostly powerful markers. But don't go overboard: One or two markers in each category should be sufficient to establish or alter others' impression of you.

As you experiment, some markers will be easy to adopt, but others may feel contrived—and that's OK. Emulating the style of others or flexing your own in new ways to create a broader range for yourself does not make you inauthentic; it means you're growing as a leader. Successful leaders are true to who they are while continually making small adjustments in how they carry themselves, how they communicate, and how they interact depending on the circumstances.

Consider football coach Vince Lombardi, who led the Green Bay Packers to five world championships and remains an enduring symbol of leadership. After struggling early in his career as he transitioned from college football to the NFL, he quickly learned that he had to adjust his leadership style. What worked with his college players was not effective with the pros. In his first job as the offensive coach for the New York Giants, his style, which fell on the extreme end of powerful, antagonized and alienated his more-seasoned players.

According to *When Pride Still Mattered,* by David Maraniss, Lombardi was seen as loud and arrogant. The players referred to him as "Little General" and "Little Mussolini." But then something unexpected happened: Lombardi adjusted. "He began roaming the hall of the Willamette dorm at night, visiting with the...players," Maraniss writes. "He acknowledged that he had much to learn and sought their advice, help, and loyalty....He tried to become one of the guys, not the authoritarian boss but the smarter older brother; they called him Vince or Vinnie, not Coach or Mr. Lombardi. He drank beers with them, laughed loudly at their jokes, told them how much he wanted them to succeed."

An executive we worked with—we'll call him Martin—had a similar problem. He grew tired of the constant feedback that he was intimidating, domineering, and coercive. Our observations revealed that Martin, like many other people we've studied, exhibited a much more powerful style in professional settings than he did in other social contexts.

To help him soften his style, we asked him to adopt four specific markers of attractiveness. First, we pointed out how often he interrupted and talked over others, especially in

group situations, and asked him to reduce those interjections. That took some time, but eventually he learned to wait for others to finish before commenting. Second, we asked him to accompany his opinions with questions more often. That was also a difficult adjustment because he maintained a strong preference for declarative statements. Third, we asked him to incorporate "partnership language" by using fewer "I" references and more "we" and "our" references. That was easier for Martin; he deeply valued inclusive language and had not noticed his overuse of self-referential ("I," "me") and possessive ("my team") expressions. Last, we asked him to demonstrate empathetic listening by slowing down and restating what he had heard from others. The unintended consequence was that he also made more eye contact when he listened—another attractive marker.

Martin was highly committed to changing his style, and it worked. After six months, colleagues noticed a favorable difference. By moving from a powerful style to one that leaned powerful instead, Martin began to earn more-favorable evaluations.

Read the room. One question we often get from executives is how to know when to lean powerful and when to lean attractive. Gaining an ability to "read the room" is part of fine-tuning your leadership style. Although you may have an idea of how you want to be perceived when entering a situation, your plan may need to change once you're actually there. Generally speaking, you should assess the markers you're receiving from others before deciding on your own approach. More often than not, if you're receiving power markers from someone, you will want to match them to garner respect. Similarly, if you're reading attractive markers from others, you'll want to lean attractive so as not to seem overbearing.

Executives make a common mistake by using power markers with subordinates and attractive markers with higher-ups. The opposite approach is often more effective. Using power markers with juniors—such as ignoring them, abruptly changing topics, or talking too much in their presence—can make you less effective. In contrast, using too many attractive markers—phrasing statements as questions, speaking more slowly, and using nonfluencies (such as "um" and "you know")—can lead executives to conclude that you're not their peer. Overemphasizing attractive markers when communicating upward to show respect is particularly likely to backfire in U.S.-based companies. To solve this problem, lean powerful with more-senior people, and lean attractive when talking to more-junior people.

A Blended Style Matters More for Minorities and Women

Our research and coaching are complicated by the fact that leadership style cannot be fully divorced from unconscious biases and discrimination. Leadership is a normative construct; when asked to "draw a leader," people (regardless of their gender) tend to draw a man. Research shows that women face a competency-likability trade-off: The more they demonstrate proficiency, the more likely their peers are to find their style off-putting. Minorities and LGBTQ executives who look or act in a manner that doesn't conform to an organization's dominant culture may also be penalized by colleagues who characterize them (perhaps unconsciously) as "not like us."

Despite the fact that the hallmarks of leadership style are similar around the world, people of diverse groups are often judged differently even when they display identical style markers. When a woman disagrees with her colleagues, for example, she may be labeled "abrasive" or "aggressive,"

Decoding Feedback

To determine where your natural style falls on the leadership spectrum, be open to the feedback you hear from managers, coworkers, friends, and family members, and identify common themes.

Comment Given	Problem	Sample Advice
"You're not senior enough"	Too attractive	Use declarative statements
"You're intimidating"	Too powerful	Speak less, listen more
"You don't have enough gravitas"	Too attractive	Dress more formally for the context
"Your team is afraid of you"	Too powerful	Use more questions, fewer statements
"You're boring"	Too attractive	Use more-intense words
"You're overbearing"	Too powerful	Shift topics more gradually
"You're too nice"	Too attractive	Minimize deferential address

while her male colleague is seen as "candid" or "direct." We certainly don't advise women and minorities not to get angry, disagree, or promote their accomplishments. Rather, we advise them to carefully select markers that will help them develop a blended style. The right assortment can allow you to show loyalty to the group you want to lead while still maintaining your uniqueness. Certain minority leaders will want to adopt more power markers; others will need more attractive markers. But again, don't go overboard. Altering your style to conform in a way that hides your diverse traits, or overplaying your differences in a way that distracts from your leadership, can backfire. Women must walk a narrow tightrope: They must have the courage to interrupt, use fewer nonfluencies, and use more-intense words while blending in more relational and empathetic responses, statements as questions, and happy expressions. Male leaders who are perceived as outliers in a group also have a small margin for error. We wish this weren't the case—but as long as unconscious bias and discrimination exist, minorities and women will need to put extra effort into developing a blended leadership style.

The late U.S. Supreme Court justice Ruth Bader Ginsburg used a blended style to her advantage. She was known for her ability to "disagree agreeably"—which helped her create unlikely friendships with more-conservative judges and foster loyal followership beyond the Court. No pushover, she picked her battles wisely and used attractive markers when necessary. As she wrote about her style, "reacting in anger or annoyance will not advance one's ability to persuade."

IN OUR RESEARCH and consulting, we have seen that style is a significant differentiating factor in the reputation and career success of leaders. The good news is that style isn't like personality—it can be intentionally altered. Dynamically integrating a broader range of powerful and attractive markers in everyday interactions can make a big difference in how we are perceived. The result is a true blended style that enables leaders to become powerful enough to be heard and attractive enough to be followed.

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ASSESSING PERFORMANCE

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REINVENTING THE Leader Selection Process

The U.S. Army's new approach to managing talent

ILLUSTRATOR **KLAWE RZECZY**

IDEA IN BRIEF

THE PROBLEM
The U.S. Army needs its commanders to have competence and character. Yet in a survey of 22,000 soldiers, fully 20% reported serving under a toxic leader.

WHAT CONTRIBUTED TO IT
Until last year the service had chosen battalion-level commanders—a linchpin position—by having senior officers independently score each candidate's personnel file. A file review took about 90 seconds, and the key text examined in each annual performance report was shorter than a typical tweet.

A BETTER WAY
The army undertook an ambitious revamping of its selection process. Each candidate now undergoes four days' worth of physical, cognitive, communication, and psychological assessments, concluding with an interview carefully designed to reduce bias. The new system holds important lessons for any organization seeking to bolster its talent assessment and promotion practices.

Addressing a class of West Point cadets in 2011, Secretary of Defense Robert M. Gates asked bluntly, "How can the army break up the institutional concrete—its bureaucratic rigidity in its assignments and promotion processes—in order to retain, challenge, and inspire its best, brightest, and most-battle-tested young officers to lead the service in the future?" The question was, he said, "the greatest challenge facing your army—and frankly, my main worry."

The army's new selection process included physical fitness, cognitive, communication, and psychological assessments.

ASSESSING PERFORMANCE

The secretary's concern was not ill founded. In a 2009–2010 survey of 22,000 soldiers, 20% said they were serving under a toxic leader. Another survey showed that fewer than 50% of army majors believe the service promotes its best members. (The picture in the corporate world is similarly bleak. In one study, researchers estimated that half of senior executives were failing in their leadership duties. Another found that 16% of managers were toxic and 20% were incompetent.)

In response to such feedback, the army designed an entirely new process for selecting battalion commanders—its first executive-level position, typically attained 17 to 20 years after an officer has joined the service. It chooses approximately 450 a year, each of whom is responsible for the training and development of 500 or so soldiers. Battalion commanders thus have an outsize influence on combat readiness and junior-leader talent retention; they are also the primary source of generals. That's why Army Chief of Staff James McConville put the overhaul of their selection process at the core of his talent reform efforts.

Over the coming year the first class of officers appointed under the new system will assume their commands. The selection process, which capitalizes on recent and emerging talent-management ideas from both the public and the private sector, includes physical fitness, cognitive, communication, and psychological tests; peer and subordinate feedback; and interviews rigorously designed to reduce bias. While specifically aimed at improving the validity, reliability, and developmental impact of the army's executive leader choices, it offers important lessons for any organization seeking to bolster its talent assessment and promotion practices.

Transforming an Industrial-Era Process

It's little wonder that the army suffered a crisis of competence in its leadership ranks. Ever since centralizing its officer selection process, in the 1980s, it had chosen battalion commanders by having multiple senior officers simply score each eligible lieutenant colonel's file, which contained subjective performance evaluations, an assignment history, and an official photo. On average, some 1,900 officers would be eligible for consideration each year. Each file review took about 90 seconds; the key text examined in each performance evaluation was shorter than a typical tweet.

Changing course in any large bureaucracy is never easy, of course, and the army faced all the usual obstacles and then some. The dominant laws governing its personnel practices had been written in 1947 and 1980. They directed that several thousand second lieutenants a year be commissioned, brought up to a minimum level of competence, and assigned and developed on the basis of seniority, specialty, and performance. People were managed largely as if they were interchangeable parts—and the system was more or less frozen in place because of its codification in law. But in 2018 Congress passed the John McCain National Defense Authorization Act, which granted the army the flexible personnel authority it had lacked. McConville—then the vice chief of staff—began making plans to improve the quality of the officer corps.

McConville arguably has more HR experience than any previous army chief of staff. Having spent three years as deputy chief of staff for personnel—the service's lead human resources officer—he has insight into the diverse talent needed in the thousands of army jobs. As a former commander of the 101st Airborne Division, he has learned that every soldier possesses unique skills and that the army's diversity is increasing. And as the parent of three young army officers, he knows firsthand that generational norms are changing and that Millennials and Gen Zers want more control over their careers.

Consider one of the problems he recognized. Let's say the army needed to appoint an officer to advise an allied army overseas. Under its legacy system, it would identify candidates with the appropriate seniority (company commander) and specialty (logistics), perhaps reviewing their performance evaluations to make sure they ranked in the top 20% of their peers, and then choose from that pool. But whereas succeeding as a company commander mainly involves directly leading people who are similar to oneself, succeeding as an adviser abroad involves indirectly influencing people who may be quite dissimilar—and doing so in an unfamiliar environment. Simply giving the job to the best company commander would be unlikely to yield the best match. Better results could be obtained by identifying individuals with superior cognitive flexibility, cross-cultural fluency, and interpersonal skills. Moreover, if the army knew which officers enjoyed international travel and meeting people from different cultures, it could choose someone whose talents and preferences were suited to the position, most likely ending up with a high performer who would enjoy and remain in the job.

Recognizing the need for adaptation that scenarios like this presented, McConville set out to transform how the army acquires, develops, employs, and retains its people, beginning with the linchpin role of battalion commander.

Starting from the Ground Up

First, the army redefined talent as the intersection of knowledge, skills, behaviors, and preferences, or KSB-Ps. Next, McConville energized and resourced the Army Talent Management Task Force—a small group of officers charged with prototyping innovative talent-management ideas—directing that inclusiveness should lie at the initiative's core. (Disclosure: I serve as an external adviser to the task force, and I moderated one of the interview panels in the new selection process.)

The task force researched army leadership doctrine and identified best practices from government, corporate, academic, and nonprofit organizations and allied militaries. It then designed the Battalion Commander Assessment Program, or BCAP: a four-day evaluation of more than 20 KSB-Ps, including communication skill, creativity, ethical leadership, and the ability to develop others. During the first three days candidates would undergo a physical fitness test, writing skill and argumentative essay examinations, cognitive and strategic talent assessments, psychometric tests, and a psychological interview. They would demonstrate their leadership and problem-solving abilities in a team-based outdoor obstacle course, and extensive peer and subordinate evaluations would be reviewed.

The process would culminate on the fourth day with 30-minute interviews in which panels would evaluate candidates' oral communication skills and decide who was ready for command. Those deemed so would be ranked according to a cumulative score informed by their BCAP assessments along with the rating assigned after a legacy-style review of their performance file (which the army still considers a valuable part of the selection process). The top 450 or so would be designated for command.

Following two successful prototypes in the summer of 2019, McConville directed a full rollout of the program. During January and February 2020, 750 lieutenant colonels—eligible officers who opted to participate after being recommended on the basis of an old-style file review—gathered for the new assessment process at Fort Knox.

Implementing Strategies to Reduce Bias

The human brain is lazy; we are constantly looking for shortcuts when processing information. Interviewers are no exception. Research has shown that unstructured interviews are often the least-informative part of an assessment. Even experienced interviewers may spend the first 30 seconds of a meeting jumping to a conclusion about the candidate and the rest of the time subconsciously seeking information to confirm that conclusion.

To guard against such shortcuts, the task force designed a full day of familiarization, calibration, and training for the BCAP panelists. Handpicked colonels were trained to serve as moderators to maintain a fair and consistent process. The work was guided by the following principles:

Create diverse panels. The selection process spanned four weeks, with six panels operating simultaneously each week. Each panel had five voting and three nonvoting members and was assembled for diversity in terms of gender, ethnicity, specialty, and previous assignments. According to army tradition, voting privileges are limited to officers one level or more above the position under consideration; the voting members of each BCAP panel included three one- or two-star generals and two senior colonels, all of whom had been successful battalion- and brigade-level commanders. The nonvoting members, included to provide additional perspectives, were a command sergeant major with extensive experience advising battalion commanders, a senior operational psychologist, and the moderator.

Conduct in-depth antibias training. Panel members were taught strategies for preventing the attributional errors that occur most often during job interviews, including *primacy* (a tendency to focus on first impressions), *contrast* (rating candidates against one another instead of against a common standard), *halo/horn* (allowing a single positive or negative trait to overshadow all else), *stereotyping,* and *similar-to-me* biases. The training also emphasized the tendency among leaders to exhibit *blind-spot bias*: recognizing that others may be biased but falsely believing that you are not. Each morning the panelists received a brief antibias refresher before beginning their work.

Don't let panelists evaluate candidates they know. At the outset, panelists were given the names of the candidates

Even experienced interviewers may spend the first 30 seconds jumping to a conclusion about a candidate and the rest of the time subconsciously seeking to confirm it.

and asked if they had any knowledge of them. This allowed organizers to create panels whose members had no preconceived notions about the people they were evaluating. Panelists were told to recuse themselves if they realized during an interview that they knew the candidate, which happened five times.

Level the playing field. Interviews can unfairly advantage candidates who have extensive interview experience. During the BCAP prototypes, the task force noted that whereas some lieutenant colonels were excellent interviewees, most were not. So candidates were instructed in the STAR method, which teaches people to answer questions by describing the situation, the task, the action taken, and the result. Although they were not required to use it, a majority did.

Calibrate grading. To ensure a single grading standard, panel members were given a rubric for each quality to be assessed that described what was needed to attain each score. Before the panels began their assessments, they met together in practice sessions. First, each panelist independently assessed three mock candidates, and the entire group discussed the results. Members then regrouped in their panels to assess three new mock candidates and go over those results. Each group of mock candidates included one who was strong in the KSB-Ps, one who was moderately strong, and one who was weak.

Use double-blind interviews. Borrowing a best practice devised by the Boston Symphony Orchestra in 1952, BCAP conducted double-blind interviews, with a black curtain separating the candidates from the panel at all times. This allowed panelists to focus on the content of answers and the KSB-Ps they were assessing rather than form judgments on the basis of ethnicity, attractiveness, or physical symbols such as wings on their uniforms. It minimized attribution biases that might be sparked by candidates' physical presence. And it meant that deep issues could be discussed without fear of repercussions should candidates and panel members work together in the future. The task force also directed candidates not to disclose, and panel members not to ask about, specific jobs they had held or locations where they had worked.

Although double-blind panels reduce bias (a test showed that the sergeants major incorrectly identified 50% of BCAP's minority candidates as white), they don't eliminate it. It's usually easy to determine gender, and panelists may consciously or subconsciously try to link pitch, accent, speaking style, or content with a certain demographic. Candidates who learned English as a second language or hailed from the deep South, for example, might have readily discernible accents. So the bias-prevention work stressed the need not to penalize or reward speaking styles or accents.

Tap psychological expertise. Applying a best practice long used by special operations units, BCAP brought operational psychologists into the process. Each of six senior psychologists supervised several junior colleagues conducting one-on-one interviews with candidates before their day-four interviews with panels. The senior psychologists collected summaries from the junior ones on the candidates seen that day and presented the results to the relevant panels in a standardized format. Because they did not interact with candidates themselves, they could be much more objective in conveying information about them. They also synthesized each candidate's BCAP assessments into a summary of strengths and weaknesses and suggested follow-up questions for the panel to pose.

Design questions for clarity and fairness. The task force developed a bank of behavior-based questions for each KSB-P being assessed, rotating them in and out to reduce the chances of their being leaked. For instance, a candidate might be instructed to "describe a situation when you advised a subordinate about a significant challenge he or she was having."

In the first segment of each interview, the moderator asked questions from the bank in a set order, thus ensuring that all candidates had the same core experience. He or she then posed any questions the panelists had after reviewing the candidate's performance in the first three days of events and hearing the senior psychologist's summary. Panelists could themselves follow up with questions intended to further illuminate strengths or risks.

Panel members were directed to elicit descriptions of specific situations and the actions taken in response and to avoid hypotheticals such as "would," "could," and "should." For example, instead of asking, "How would you deal with an underperforming subordinate?" they might say, "Please tell us about a recent time when you developed a subordinate who was underperforming."

Candidates were required to wait 30 seconds before answering each question—an instruction driven by what psychologists know about certain personality traits. Because extroverts are typically comfortable thinking out loud, whereas introverts tend to process information silently, the waiting period was meant to ensure that the former did not have an unfair advantage.

To further ensure fairness, panelists were instructed not to give feedback or discuss candidates' answers and to refrain from any body language, such as a thumbs-up or an eye roll, that could signal approval or disapproval to fellow panelists.

Hear from those the candidates would lead. Borrowing a best practice from Google, which involves an applicant's potential team members in the interview process, each panel included a command sergeant major—roughly equivalent to a general manager's senior operations foreman. Those asked to participate had served as advisers to battalion- and brigade-level commanders and general officers and had keen insights about what the job of battalion commander requires. After each interview they shared their insights about the candidate's strengths and weaknesses in each KSB-P. To minimize recency bias, they were directed not to indicate their overall assessment of the candidate.

Identify and head off aberrant votes. After the sergeant majors' comments, panels held nonbinding votes on each KSB-P, with results visible to the moderator alone. If two panelists differed significantly on an assessment, the moderator asked them to give the reasons for their rating without sharing the actual scores. To avoid having the senior officer in the pair exert undue influence, the junior officer went first.

Make voting confidential. Next, panels held their official vote. The moderator reminded members to base their ratings on the rubrics and not to identify their votes or discuss the candidates. With their votes panelists submitted comments about candidates' developmental strengths and weaknesses in each KSB-P; those were relayed to the junior psychologists, who conducted a short "out briefing" with each candidate.

Monitor panels in real time. To ensure consistency and fairness across panels, the general directing the BCAP initiative held daily meetings with the moderators, giving guidance and asking for input on issues, voting trends, and needs. Each day he observed at least one interview per panel via a live closed-circuit camera system. He would occasionally drop into panel rooms where members were wrestling with procedural issues and offer advice. The six moderators, the director, and a panel coordinator communicated regularly on a closed channel, sharing issues, concerns, and best practices in real time. Panelists could ask that the director observe their panel or visit it before or after an interview to clarify procedural concerns; such requests were accommodated rapidly, often within seconds.

Bringing Key Stakeholders into the Process

The organizational change expert John Kotter holds that a crucial step in leading change is building a guiding coalition. BCAP asked for input or participation from several key stakeholder groups: peers and subordinates of the candidates, including the sergeants major, and general officers.

Gather opinions from peers and subordinates. Prior to the assessments at Fort Knox, BCAP leaders emailed 10-minute surveys to candidates' peer and subordinate officers. The pivotal question: Should the individual be given a battalion command? More than 65% of recipients responded (response rates for army surveys typically fall below 15%). In reviewing the survey results, panelists were reminded that leaders sometimes have to be stern and that they should consider negative feedback in context: If a clear majority of answers about a candidate were positive, negative responses to one or two items should be deemed outliers.

A vast majority of the candidates were recommended for command by a vast majority of their peers and subordinates—suggesting that most lieutenant colonels are leading well, although some are not. Candidates completed the BCAP process regardless of the survey responses, since those were just one of several factors considered.

Bring strategic leaders on board. The army's current generals rose through the ranks via the old selection process, so careful thought had to be given to obtaining their buy-in. McConville asked the service's 12 four-star generals to weight the assessments used to generate candidates' final scores, thus signaling that senior leadership was behind the program and that everyone else was expected to be too.

As mentioned, three one- or two-star generals sat on each panel. Because the selection process involved 24 panels in all—six panels in each of the four weeks—72 of the army's one- and two-star generals, or more than 20%, took part.

Gauging Early Outcomes and Looking to the Future

The BCAP assessments cost $2.5 million in travel fees, supplies, equipment, and so on, along with the opportunity cost of participants' time. What did the army gain in return?

BCAP's most immediate impact will be on the soldiers led by the 436 newly selected battalion commanders. Remarkably, 150 of the new commanders, or 34%, would not have been chosen on the basis of legacy-style file reviews alone; although their file scores did not place them among the top candidates, their strengths in the BCAP assessments lifted them into that group. Moreover, 25 candidates whose file reviews would have earned them a posting under the old system were deemed "not ready for command" by their interview panels, many because they exhibited strong and consistent evidence of toxicity. Since future generals will be drawn mainly from today's battalion commanders, these results mean that tens of thousands of soldiers (and their families) ultimately stand to benefit from commanders who are more fit, more capable, better communicators, and more thoughtful. (The army generally doesn't publish demographic information about those selected for command.)

The process also generated benefits for the candidates, regardless of whether they were tapped for command. The week at Fort Knox reconnected them with old acquaintances and introduced them to new ones. As we know from network theory and social psychology, strong professional networks increase one's ability to get things done, while strong personal networks boost emotional stability and well-being. And all candidates (even those denied the promotion) were offered follow-on leadership development with a civilian executive coach, to work on findings from the process or on self-identified areas for improvement. A majority signed on, including 64% of male officers and 84% of female ones.

In exit surveys 96% of the candidates, including 98% of women and 96% of minority officers, said that BCAP was a better way to select commanders. Two months later, after candidates had learned the results, 97% thought the new program should be continued. Some 11% called for major modifications—such as additional feedback, different evaluation criteria and events, and alternative assessment timelines—that will be analyzed and addressed for the future.

Follow-up surveys and an after-action review revealed an unanticipated benefit: panelists' own development. Although some generals initially questioned why they had to spend valuable time improving the process by which they had been chosen, in the end 95% of the panelists said they believed it was a better way to select battalion commanders. Some were grateful to be refreshed on the issues facing younger leaders. Many reflected on their own leadership behaviors, often commenting that the training made them aware of their biases and the need to lead more inclusively.

The process also provided important information about the panelists. In a few years the army will know which new commanders are successful. Because it recorded all the votes on each candidate, it could identify especially effective evaluators and invite them to serve on other selection boards.

And the initiative's effects extend beyond those who went to Fort Knox. BCAP opened the army's eyes to the possibility of creating a broader culture of evaluation and feedback. Some West Point instructors have adapted the writing rubrics for use in teaching cadets. At least one army unit is organizing a mock BCAP so that future candidates can increase their fitness and their writing and oral skills. The service is also considering using many of the assessments for the development of officers with four or five years of experience. The evaluations could be repeated several years later, allowing officers to see how they had grown (or not). At both points they could help officers and the army alike optimize assignments and development programs. As officers practice the skills spotlighted in the assessments, their abilities will increase, making for stronger leaders even among those who are never chosen for a battalion command.

Finally, the army has used the BCAP template to design a similar program for selecting brigade-level commanders. And building on BCAP's inclusion efforts, the Talent Management Task Force recently established a formal diversity and inclusion initiative that extends across its various programs.

BCAP HAS GIVEN the army the most carefully vetted class of battalion leaders in its history. Candidates say they gained valuable perspectives and learned much about themselves. Soldiers asked to evaluate peer and superior officers were sent a clear message that their opinions matter and that leaders are expected to treat them with respect. Generals and colonels serving on the panels received a powerful refresher in what junior officers experience in their daily jobs and the skills they need to do them well. Many panelists also underwent the most thorough bias-reduction training they have ever received—which should drive more-inclusive treatment of the people they themselves lead.

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ORGANIZATIONAL CULTURE

How Apple Is Organized for Innovation

It's about experts leading experts.

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ORGANIZATIONAL CULTURE

Apple is WELL KNOWN FOR ITS innovations in hardware, software, and services. Thanks to them, it grew from some 8,000 employees and $7 billion in revenue in 1997, the year Steve Jobs returned, to 137,000 employees and $260 billion in revenue in 2019. Much less well known are the organizational design and the associated leadership model that have played a crucial role in the company's innovation success.

When Jobs arrived back at Apple, it had a conventional structure for a company of its size and scope. It was divided into business units, each with its own P&L responsibilities. General managers ran the Macintosh products group, the information appliances division, and the server products division, among others. As is often the case with decentralized business units, managers were inclined to fight with one another, over transfer prices in particular. Believing that conventional management had stifled innovation, Jobs, in his first year returning as CEO, laid off the general managers of all the business units (in a single day), put the entire company under one P&L, and combined the disparate functional departments of the business units into one functional organization. (See the exhibit "Apple's Functional Organization.")

The adoption of a functional structure may have been unsurprising for a company of Apple's size at the time. What *is* surprising—in fact, remarkable—is that Apple retains it today, even though the company is nearly 40 times as large in terms of revenue and far more complex than it was in 1998. Senior vice presidents are in charge of functions, not products. As was the case with Jobs before him, CEO Tim Cook occupies the only position on the organizational chart where the design, engineering, operations, marketing, and retail of any of Apple's main products meet. In effect, besides the CEO, the company operates with no conventional general managers: people who control an entire process from product development through sales and are judged according to a P&L statement.

Business history and organizational theory make the case that as entrepreneurial firms grow large and complex, they must shift from a functional to a multidivisional structure to align accountability and control and prevent the congestion that occurs when countless decisions flow up the org chart to the very top. Giving business unit leaders full control over key functions allows them to do what is best to meet the needs of their individual units' customers and maximize their results, and it enables the executives overseeing them to assess their performance. As the Harvard Business School historian Alfred Chandler documented, U.S. companies such as DuPont and General Motors moved from a functional to a multidivisional structure in the early 20th century. By the latter half of the century the vast majority of large corporations had followed suit. Apple proves that this conventional approach is not necessary and that the functional structure may benefit companies facing tremendous technological change and industry upheaval.

Apple's commitment to a functional organization does not mean that its structure has remained static. As the importance of artificial intelligence and other new areas has increased, that structure has changed. Here we discuss the innovation benefits and leadership challenges of Apple's distinctive and ever-evolving organizational model, which may be useful for individuals and companies wanting to better understand how to succeed in rapidly changing environments.

IDEA IN BRIEF

THE CHALLENGE
Major companies competing in many industries struggle to stay abreast of rapidly changing technologies.

ONE MAJOR CAUSE
They are typically organized into business units, each with its own set of functions. Thus the key decision makers—the unit leaders—lack a deep understanding of all the domains that answer to them.

THE APPLE MODEL
The company is organized around functions, and expertise aligns with decision rights. Leaders are cross-functionally collaborative and deeply knowledgeable about details.

ABOUT THE ART

Apple Park, Apple's corporate headquarters in Cupertino, California, opened in 2017.

Mikael Jansson/Trunk Archive

WHY A FUNCTIONAL ORGANIZATION?

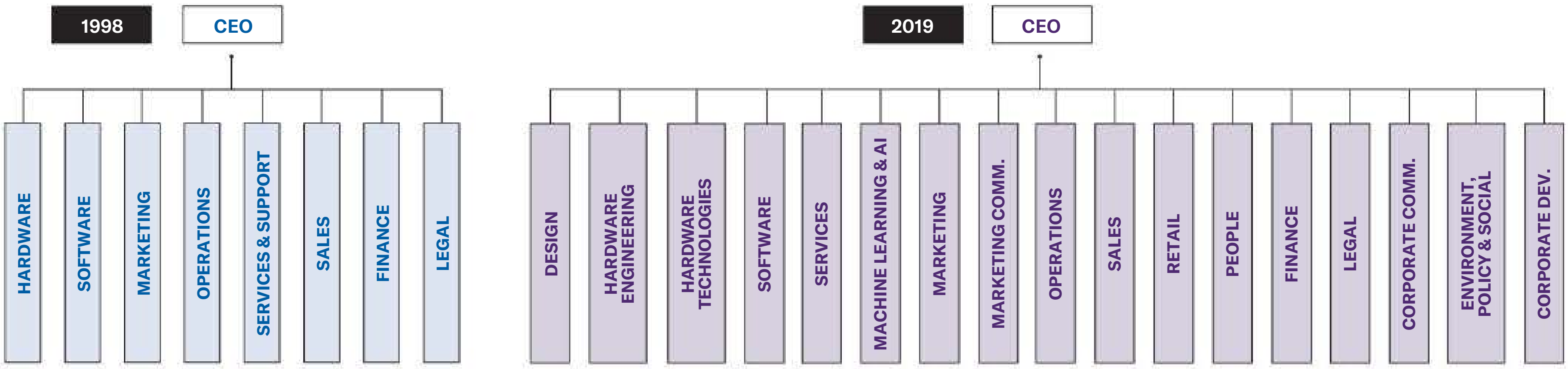
Apple's main purpose is to create products that enrich people's daily lives. That involves not only developing entirely new product categories such as the iPhone and the Apple Watch, but also continually innovating within those categories. Perhaps no product feature better reflects Apple's commitment to continuous innovation than the iPhone camera. When the iPhone was introduced, in 2007, Steve Jobs devoted only six seconds to its camera in the annual keynote event for unveiling new products. Since then iPhone camera technology has contributed to the photography industry with a stream of innovations: High dynamic range imaging (2010), panorama photos (2012), True Tone flash (2013), optical image stabilization (2015), the dual-lens camera (2016), portrait mode (2016), portrait lighting (2017), and night mode (2019) are but a few of the improvements.

To create such innovations, Apple relies on a structure that centers on functional expertise. Its fundamental belief is that those with the most expertise and experience in a domain should have decision rights for that domain. This is based on two views: First, Apple competes in markets where the rates of technological change and disruption are high, so it must rely on the judgment and intuition of people with deep knowledge of the technologies responsible for disruption. Long before it can get market feedback and solid market forecasts, the company must make bets about which technologies and designs are likely to succeed in smartphones, computers, and so on. Relying on technical experts rather than general managers increases the odds that those bets will pay off.

Second, Apple's commitment to offer the best possible products would be undercut if short-term profit and cost

Apple’s Functional Organization

In 1997, when Steve Jobs returned to Apple, it had a conventional structure for its size and scope. It was divided into business units, each with its own P&L responsibilities. After retaking the helm, Jobs put the entire company under one P&L and combined the disparate departments of the business units into one functional organization that aligns expertise with decision rights—a structure Apple retains to this day.



targets were the overriding criteria for judging investments and leaders. Significantly, the bonuses of senior R&D executives are based on companywide performance numbers rather than the costs of or revenue from particular products. Thus product decisions are somewhat insulated from short-term financial pressures. The finance team is not involved in the product road map meetings of engineering teams, and engineering teams are not involved in pricing decisions.

We don’t mean to suggest that Apple doesn’t consider costs and revenue goals when deciding which technologies and features the company will pursue. It does, but in ways that differ from those employed by conventionally organized companies. Instead of using overall cost and price targets as fixed parameters within which to make design and engineering choices, R&D leaders are expected to weigh the benefits to users of those choices against cost considerations.

In a functional organization, individual and team reputations act as a control mechanism in placing bets. A case in point is the decision to introduce the dual-lens camera with portrait mode in the iPhone 7 Plus in 2016. It was a big wager that the camera’s impact on users would be sufficiently great to justify its significant cost.

One executive told us that Paul Hubel, a senior leader who played a central role in the portrait mode effort, was “out over his skis,” meaning that he and his team were taking a big risk: If users were unwilling to pay a premium for a phone with a more costly and better camera, the team would most likely have less credibility the next time it proposed an expensive upgrade or feature. The camera turned out to be a defining feature for the iPhone 7 Plus, and its success further enhanced the reputations of Hubel and his team.

It’s easier to get the balance right between an attention to costs and the value added to the user experience when the leaders making decisions are those with deep expertise in their areas rather than general managers being held accountable primarily for meeting numerical targets. Whereas the fundamental principle of a conventional business unit structure is to align accountability and control, the fundamental principle of a functional organization is to align expertise and decision rights.

Thus the link between how Apple is organized and the type of innovations it produces is clear. As Chandler famously argued, “structure follows strategy”—even though Apple doesn’t use the structure that he anticipated large multinationals would adopt.

Now let’s turn to the leadership model underlying Apple’s structure.

THREE LEADERSHIP CHARACTERISTICS

Ever since Steve Jobs implemented the functional organization, Apple’s managers at every level, from senior vice president on down, have been expected to possess three key leadership characteristics: deep expertise that allows them to meaningfully engage in all the work being done within their individual functions; immersion in the details of those functions; and a willingness to collaboratively debate other functions during collective decision-making. When managers have these attributes, decisions are made in a coordinated fashion by the people most qualified to make them.

Deep expertise. Apple is not a company where general managers oversee managers; rather, it is a company where experts lead experts. The assumption is that it’s easier to train an expert to manage well than to train a manager to be an expert. At Apple, hardware experts manage hardware, software experts software, and so on. (Deviations from this principle are rare.) This approach cascades down all levels of the organization through areas of ever-increasing

Apple leaders are expected to possess deep expertise, be immersed in the details of their functions, and engage in collaborative debate.

specialization. Apple's leaders believe that world-class talent wants to work for and with other world-class talent in a specialty. It's like joining a sports team where you get to learn from and play with the best.

Early on, Steve Jobs came to embrace the idea that managers at Apple should be experts in their area of management. In a 1984 interview he said, "We went through that stage in Apple where we went out and thought, *Oh, we're gonna be a big company, let's hire professional management*. We went out and hired a bunch of professional management. It didn't work at all....They knew how to manage, but they didn't know how to *do* anything. If you're a great person, why do you want to work for somebody you can't learn anything from? And you know what's interesting? You know who the best managers are? They are the great individual contributors who never, ever want to be a manager but decide they have to be...because no one else is going to...do as good a job."

One current example is Roger Rosner, who heads Apple's software application business, which includes work-productivity apps such as Pages (word processing), Numbers (spreadsheets), and Keynote (presentations) along with GarageBand (music composition), iMovie (movie editing), and News (an app providing news content). Rosner, who studied electrical engineering at Carnegie Mellon, joined Apple in 2001 as a senior engineering manager and rose to become the director of iWork applications, the vice president of productivity apps, and since 2013 the VP of applications. With his deep expertise gained from previous experience as the director of engineering at several smaller software companies, Rosner exemplifies an expert leading experts.

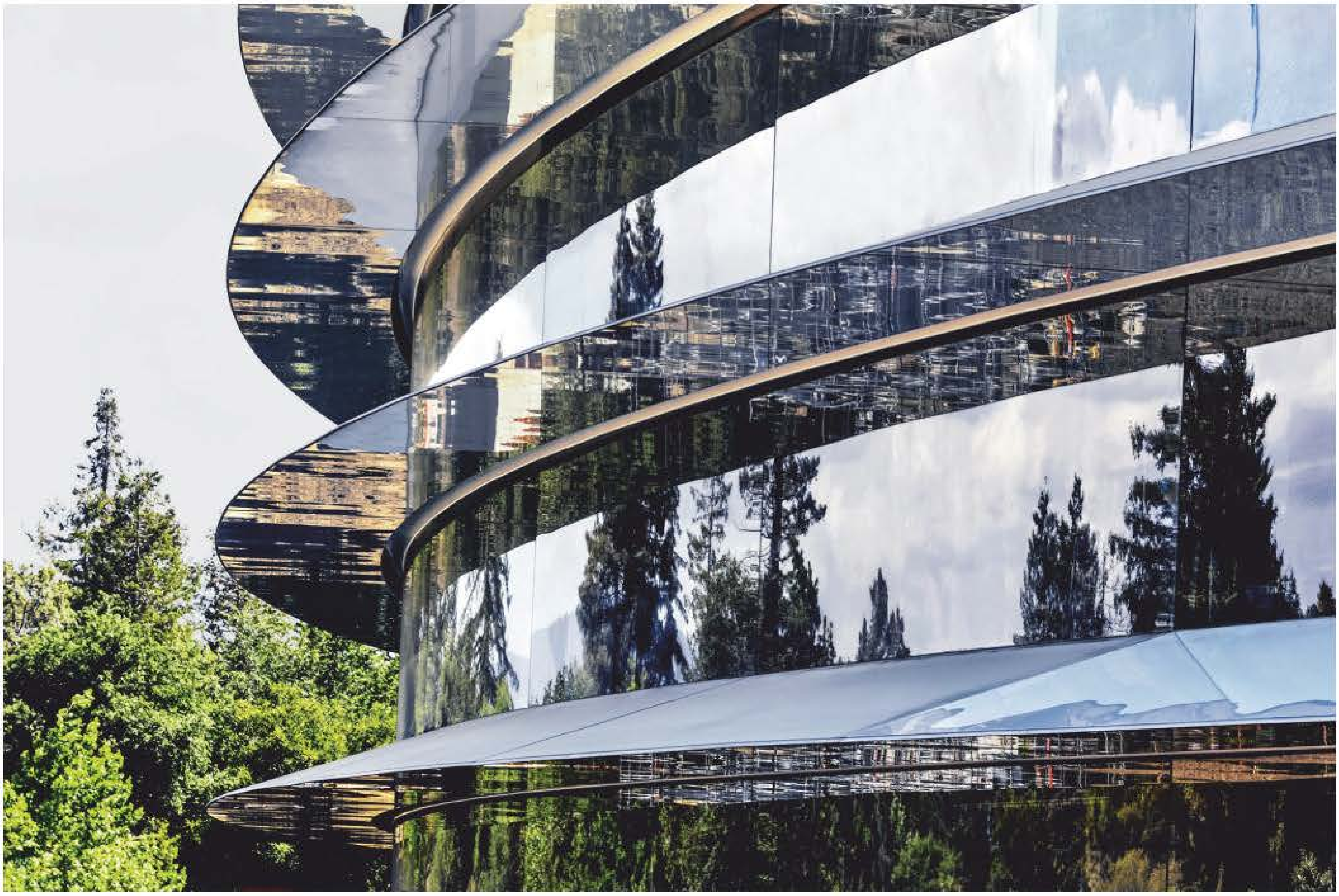
In a functional organization, experts leading experts means that specialists create a deep bench in a given area, where they can learn from one another. For example, Apple's more than 600 experts on camera hardware technology work in a group led by Graham Townsend, a camera expert. Because iPhones, iPads, laptops, and desktop computers all include cameras, these experts would be scattered across product lines if Apple were organized in business units. That would dilute their collective expertise, reducing their power to solve problems and generate and refine innovations.

Immersion in the details. One principle that permeates Apple is "Leaders should know the details of their organization three levels down," because that is essential for speedy and effective cross-functional decision-making at the highest levels. If managers attend a decision-making meeting without the details at their disposal, the decision must either be made without the details or postponed. Managers tell war stories about making presentations to senior leaders who drill down into cells on a spreadsheet, lines of code, or a test result on a product.

Of course, the leaders of many companies insist that they and their teams are steeped in the details. But few organizations match Apple. Consider how its senior leaders pay extreme attention to the exact shape of products' rounded corners. The standard method for rounding corners is to use an arc of a circle to connect the perpendicular sides of a rectangular object, which produces a somewhat abrupt transition from straight to curve. In contrast, Apple's leaders insist on continuous curves, resulting in a shape known in the design community as a "squircle": The slope starts sooner but is less abrupt. (See the exhibit "One Example of Apple's Attention to Detail.") An advantage of hardware products without abrupt changes in curvature is that they produce softer highlights (that is, little to no jump in light reflection along the corner). The difference is subtle, and executing on it isn't simply a matter of a more complicated mathematical formula. It demands that Apple's operations leaders commit to extremely precise manufacturing tolerances to produce millions of iPhones and other products with squircles. This deep immersion in detail isn't just a concern that is pushed down to lower-level people; it is central at the leadership level.

Having leaders who are experts in their areas and can go deep into the details has profound implications for how Apple is run. Leaders can push, probe, and "smell" an issue. They know which details are important and where to focus their attention. Many people at Apple see it as liberating, even exhilarating, to work for experts, who provide better guidance and mentoring than a general manager would. Together, all can strive to do the best work of their lives in their chosen area.

Willingness to collaboratively debate. Apple has hundreds of specialist teams across the company, dozens of which may be needed for even one key component of a new product offering. For example, the dual-lens camera with portrait mode required the collaboration of no fewer than



40 specialist teams: silicon design, camera software, reliability engineering, motion sensor hardware, video engineering, core motion, and camera sensor design, to name just a few. How on earth does Apple develop and ship products that require such coordination? The answer is collaborative debate. Because no function is responsible for a product or a service on its own, cross-functional collaboration is crucial.

When debates reach an impasse, as some inevitably do, higher-level managers weigh in as tiebreakers, including at times the CEO and the senior VPs. To do this at speed with sufficient attention to detail is challenging for even the best of leaders, making it all the more important that the company fill many senior positions from within the ranks of its VPs, who have experience in Apple's way of operating.

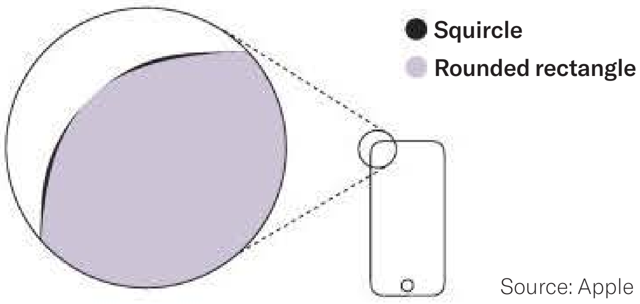
However, given Apple's size and scope, even the executive team can resolve only a limited number of stalemates. The many horizontal dependencies mean that ineffective peer relationships at the VP and director levels have the potential to undermine not only particular projects but the entire company. Consequently, for people to attain and remain in a leadership position within a function, they must be highly effective collaborators.

That doesn't mean people can't express their points of view. Leaders are expected to hold strong, well-grounded views and advocate forcefully for them, yet also be willing to change their minds when presented with evidence that others' views are better. Doing so is not always easy, of course. A leader's ability to be both partisan and open-minded is facilitated by two things: deep understanding of and devotion to the company's values and common purpose, and a commitment to separating how *right* from how *hard* a particular path is so that the difficulty of executing a decision doesn't prevent its being selected.

The development of the iPhone's portrait mode illustrates a fanatical attention to detail at the leadership level, intense collaborative debate among teams, and the power of a shared purpose to shape and ultimately resolve debates. In 2009 Hubel had the idea of developing an iPhone feature that would allow people to take portrait photos with *bokeh*—a Japanese term that refers to the pleasing blurring of a background—which photography experts generally consider to be of the highest quality. At that time only expensive single-lens reflex cameras could take such photos, but Hubel thought that with a dual-lens design and advanced

One Example of Apple's Attention to Detail

The standard method for rounding the corners of a rectangular object is to use an arc of a circle to connect the object's perpendicular sides. That can result in an abrupt transition in curvature. To produce softer highlights by minimizing light reflection, Apple uses a "squircle," which creates continuous curves.



Source: Apple

computational-photography techniques, Apple could add the capability in the iPhone. His idea aligned well with the camera team's stated purpose: "More people taking better images more of the time."

As the team worked to turn this idea into reality, several challenges emerged. The first attempts produced some amazing portrait pictures but also a number of "failure cases" in which the algorithm was unable to distinguish between the central object in sharp relief (a face, for instance) and the background being blurred. For example, if a person's face was to be photographed from behind chicken wire, it was not possible to construct an algorithm that would capture the chicken wire to the side of the face with the same sharpness as the chicken wire in front of it. The wire to the side would be as blurred as the background.

One might say, "Who cares about the chicken wire case? That's exceedingly rare." But for the team, sidestepping rare or extreme situations—what engineers call *corner cases*—would violate Apple's strict engineering standard of zero "artifacts," meaning "any undesired or unintended alteration in data introduced in a digital process by an involved technique and/or technology." Corner cases sparked "many tough discussions" between the camera team and other teams involved, recalls Myra Haggerty, the VP of sensor software and UX prototyping, who oversaw the firmware and algorithm teams. Sebastien Marineau-Mes, the VP to whom the camera software team ultimately reported, decided to defer the release of the feature until the following year to give the team time to better address failure cases—"a hard pill to swallow," Hubel admits.

To get some agreement on quality standards, the engineering teams invited senior design and marketing leaders to meet, figuring that they would offer a new perspective. The design leaders brought an additional artistic sensibility to the debate, asking, "What makes a beautiful portrait?" To help reassess the zero-artifacts standard, they collected images from great portrait photographers. They noted, among other things, that these photos often had blurring at the edges of a face but sharpness on the eyes. So they charged the algorithm teams with achieving the same effect. When the teams succeeded, they knew they had an acceptable standard.

Another issue that emerged was the ability to preview a portrait photo with a blurred background. The camera team had designed the feature so that users could see its effect on their photos only *after* they had been taken, but the human interface (HI) design team pushed back, insisting that users should be able to see a "live preview" and get some guidance about how to make adjustments *before* taking the photo. Johnnie Manzari, a member of the HI team, gave the camera team a demo. "When we saw the demo, we realized that this is what we needed to do," Townsend told us. The members of his camera hardware team weren't sure they could do it, but difficulty was not an acceptable excuse for failing to deliver what would clearly be a superior user experience. After months of engineering effort, a key stakeholder, the video engineering team (responsible for the low-level software that controls sensor and camera operations) found a way, and the collaboration paid off. Portrait mode was central to Apple's marketing of the iPhone 7 Plus. It proved a major reason for users' choosing to buy and delighting in the use of the phone.

As this example shows, Apple's collaborative debate involves people from various functions who disagree, push back, promote or reject ideas, and build on one another's ideas to come up with the best solutions. It requires open-mindedness from senior leaders. It also requires those leaders to inspire, prod, or influence colleagues in other areas to contribute toward achieving their goals.

While Townsend is accountable for how great the camera is, he needed dozens of other teams—each of which had a long list of its own commitments—to contribute their time and effort to the portrait mode project. At Apple that's known as *accountability without control:* You're accountable for making the project succeed even though you don't control all the other teams. This process can be messy yet produce great results. "Good mess" happens when various teams work with a shared purpose, as in the case of the portrait mode project. "Bad mess" occurs when teams push their own agendas ahead of common goals. Those who become associated with bad mess and don't or can't change their behavior are removed from leadership positions, if not from Apple altogether.

LEADERSHIP AT SCALE

Apple's way of organizing has led to tremendous innovation and success over the past two decades. Yet it has not been without challenges, especially with revenues and head count having exploded since 2008.

As the company has grown, entering new markets and moving into new technologies, its functional structure and leadership model have had to evolve. Deciding how to organize areas of expertise to best enable collaboration and rapid decision-making has been an important responsibility of the CEO. The adjustments Tim Cook has implemented in recent years include dividing the hardware function into hardware engineering and hardware technologies; adding artificial intelligence and machine learning as a functional area; and moving human interface out of software to merge it with industrial design, creating an integrated design function.

Another challenge posed by organizational growth is the pressure it imposes on the several hundred VPs and directors below the executive team. If Apple were to cap the size or scope of a senior leader's organization to limit the number and breadth of details that the leader is expected to own, the company would need to hugely expand the number of senior leaders, making the kind of collaboration that has worked so well impossible to preserve.

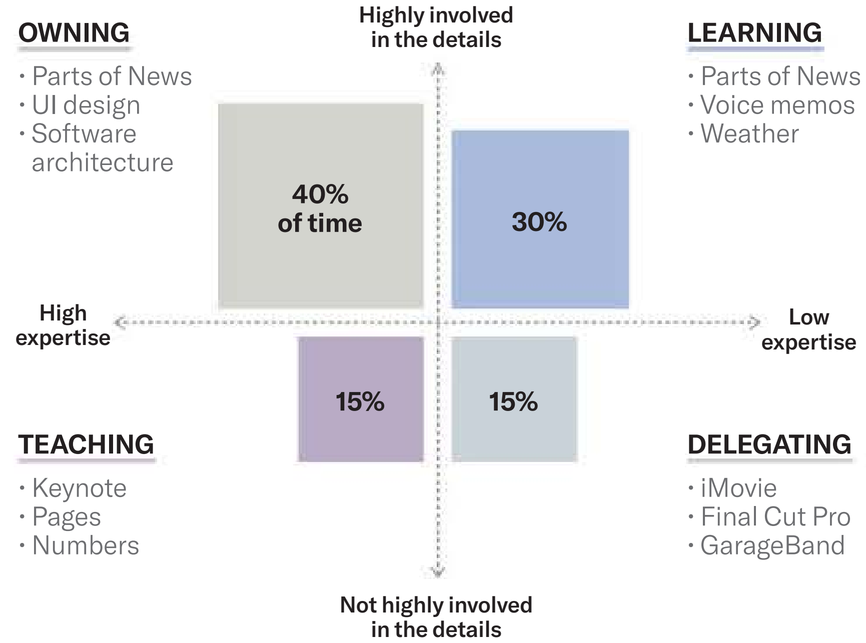
Cognizant of this problem, Apple has been quite disciplined about limiting the number of senior positions to minimize how many leaders must be involved in any cross-functional activity. In 2006, the year before the iPhone's launch, the company had some 17,000 employees; by 2019 that number had grown more than eightfold, to 137,000. Meanwhile, the number of VPs approximately doubled, from 50 to 96. The inevitable result is that senior leaders head larger and more diverse teams of experts, meaning more details to oversee and new areas of responsibility that fall outside their core expertise.

In response, many Apple managers over the past five years or so have been evolving the leadership approach described above: experts leading experts, immersion in the details, and collaborative debate. We have codified these adaptions in what we call the *discretionary leadership* model, which we have incorporated into a new educational program for Apple's VPs and directors. Its purpose is to address the challenge of getting this leadership approach to drive innovation in all areas of the company, not just product development, at an ever-greater scale.

When Apple was smaller, it may have been reasonable to expect leaders to be experts on and immersed in the details of pretty much everything going on in their organizations.

Roger Rosner's Discretionary Leadership

Apple's VP of applications, Roger Rosner, oversees a portfolio comprising four distinct categories that require varying amounts of his time and attention to detail. In 2019 it looked like this:



Source: Apple

However, they now need to exercise greater discretion regarding where and how they spend their time and efforts. They must decide which activities demand their full attention to detail because those activities create the most value for Apple. Some of those will fall within their existing core expertise (what they still need to *own*), and some will require them to *learn* new areas of expertise. Activities that require less attention from the leader can be pushed down to others (and the leaders will either *teach* others or *delegate* in cases where they aren't experts).

Rosner, the VP of applications, provides a good example. Like many other Apple managers, he has had to contend with three challenges arising from Apple's tremendous growth. First, the *size* of his function has exploded over the past decade in terms of both head count (from 150 to about 1,000) and the number of projects under way at any given time. Clearly, he cannot dive into all the details of all those projects. Second, the *scope* of his portfolio has widened: Over the past 10 years he has assumed responsibility for new applications, including News, Clips (video editing), Books, and Final Cut Pro (advanced video editing). Although apps are his core area of expertise, some aspects of these—among them editorial content for News, how book publishing works, and video editing—involve matters in which Rosner is not an expert. Finally, as Apple's product portfolio and number of projects have expanded, even more coordination with other functions is required, increasing the *complexity* of collaborating across the many units. For instance, whereas Rosner is responsible for the engineering side of News, other managers oversee the operating system on which it depends, the content, and the business relationships with content creators (such as the *New York Times*) and advertisers.

To cope, Rosner has adapted his role. As an expert who leads other experts, he had been immersed in details—especially those concerning the top-level aspects of software applications and their architecture that affect how users engage with the software. He also collaborated with managers across the company in projects that involved those areas.

But with the expansion of his responsibilities, he has moved some things from his *owning* box—including traditional productivity apps such as Keynote and Pages—into his *teaching* box. (See the exhibit "Roger Rosner's Discretionary Leadership.") Now he guides and gives feedback to other team members so that they can develop software applications according to Apple's norms. Being a teacher doesn't mean that Rosner gives instruction at a whiteboard; rather, he offers strong, often passionate critiques of his team's work. (Clearly, general managers without his core expertise would find it difficult to teach what they don't know.)

The second challenge for Rosner involved the addition of activities beyond his original expertise. Six years ago he was given responsibility for the engineering and design of News. Consequently, he had to learn about publishing news content via an app—to understand news publications, digital advertising, machine learning to personalize news content, architecting for privacy, and how to incentivize publishers. Thus some of his work fell into the *learning* box. Here managers face a steep learning curve to acquire new skills. Given how demanding this is, only critical new activities should fall into this category. Over six years of intense learning, Rosner has mastered some of these areas, which are now in his owning box.

As long as a particular activity remains in the learning box, leaders must adopt a beginner's mindset, questioning subordinates in a way that suggests they don't already know the answer (because they don't). This differs starkly from the way leaders question subordinates about activities in the owning and teaching boxes.

Finally, Rosner has delegated some areas—including iMovie and GarageBand, in which he is not an expert—to people with the requisite capabilities. For activities in the *delegating* box, he assembles teams, agrees on objectives, monitors and reviews progress, and holds the teams accountable: the stuff of general management.

Whereas Apple's VPs spend most of their time in the owning and learning boxes, general managers at other companies tend to spend most of their time in the delegating box. Rosner estimates that he spends about 40% of his time on activities he owns (including collaboration with others in a given area), about 30% on learning, about 15% on teaching, and about 15% on delegating. These numbers vary by manager, of course, depending on their business and the needs at a given time.

The discretionary leadership model preserves the fundamental principle of an effective functional organization at scale—aligning expertise and decision rights. Apple can effectively move into new areas when leaders like Rosner take on new responsibilities outside their original expertise, and teams can grow in size when leaders teach others their craft and delegate work. We believe that Apple will continue to innovate and prosper by being organized this way.

APPLE'S FUNCTIONAL ORGANIZATION is rare, if not unique, among very large companies. It flies in the face of prevailing management theory that companies should be reorganized into divisions and business units as they become large. But something vital gets lost in a shift to business units: the alignment of decision rights with expertise.

Why do companies so often cling to having general managers in charge of business units? One reason, we believe, is that making the change is difficult. It entails overcoming inertia, reallocating power among managers, changing an individual-oriented incentive system, and learning new ways of collaborating. That is daunting when a company already faces huge external challenges. An intermediate step may be to cultivate the experts-leading-experts model even within a business unit structure. For example, when filling the next senior management role, pick someone with deep expertise in that area as opposed to someone who might make the best general manager. But a full-fledged transformation requires that leaders also transition to a functional organization. Apple's track record proves that the rewards may justify the risks. Its approach can produce extraordinary results.

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HUMAN RESOURCES

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Rethinking the On-Demand Workforce

Digital talent platforms have matured, and many companies are using them to hire skilled gig workers. Now they need to get strategic about it.

ILLUSTRATOR **PAUL WEARING**

HUMAN RESOURCES

In this era of chronic skills shortages, rapid automation, and digital transformation, companies are confronting a growing talent problem, one that has the potential to become a strategic bottleneck.

How can they find people with the right skills to do the right work at just the right time? The half-life of skills is shrinking fast, and many jobs now come and go in a matter of years. Not only that, but major demographic changes are under way: Boomers are aging out of the workforce, and Millennials and Gen Z are taking over, bringing with them very different priorities about who should do what work—and where, when, and how it should get done.

To help companies address these challenges, a new generation of talent platforms—such as Catalant, InnoCentive, Kaggle, Toptal, and Upwork—has emerged. In contrast to Uber, Amazon Mechanical Turk, and TaskRabbit, these platforms offer on-demand access to *highly skilled* workers, and our research shows that their number has risen substantially since 2009, from roughly 80 to more than 330. Much of that growth took place during the past five years alone. Today almost all *Fortune* 500 companies use one or more of them.

Platforms that provide workers who have four-year college degrees or advanced degrees represent an increasingly important but understudied element of the emerging gig economy. To better understand this phenomenon, we undertook a survey of nearly 700 U.S. businesses that use them. We then conducted in-depth interviews with many corporate leaders whose companies are relying on the platforms and with platform founders and executives.

That companies are leveraging high-skills platforms in large numbers came as no surprise to us, because in recent years we've seen how they can increase labor force flexibility, accelerate time to market, and enable innovation. We were impressed, however, by the variety of engagements that companies are making with the platforms. They're seeking help with projects that are short- and long-term, tactical and strategic, specialized and general. What's more, 90% of the leaders we surveyed—C-suite and frontline—believe these platforms will be core to their ability to compete in the future.

But here's what did surprise us: Despite the extent to which companies are now turning to such platforms, very few firms have developed a cohesive organization-wide approach to their use. Instead, operational frontline leaders who are desperate to get things done have been reaching out to them on an ad hoc basis, often without any central guidance. This approach is costly, inefficient, and opaque.

To compete in the years ahead, companies must do better. They'll have to acknowledge and embrace the full potential of digital talent platforms—which is to say, figure out how to engage strategically with what you might call the *on-demand workforce.*

Though millions of workers were laid off this past spring, in the coming months employers will begin to rehire—and when they do, they'll need to be more purposeful about their approach to talent. How can they access hard-to-find expertise? Which positions or roles have changed, and what new capabilities are required? What work can be done more successfully and efficiently by skilled freelancers? In an environment of ongoing uncertainty, employers will be even more attracted to the freelance route for a variety of reasons: It makes hiring easier for hard-to-fill jobs, offers access to a wider set of skills, reduces head count, and allows more flexibility during times of change.

In this article we'll take stock of where most companies now stand on this front. We'll show how some pioneers are speeding ahead to take advantage of what the new talent platforms have to offer, and we'll explain how you and your management team can do the same.

The number of freelancers who say they consider gig work to be a long-term career choice is the same as the number who consider it a temporary way to make money.

The Maturing Gig Ecosystem

As the gig economy has grown, three kinds of platforms have emerged:

Marketplaces for premium talent. These platforms, which include Toptal and Catalant, allow companies to easily source high-end niche experts—anybody from big-data scientists to strategic project managers and even interim CEOs and CFOs. Toptal, for example, claims it culls the "top 3%" of freelancers from across the globe. Experts might be hired for strategic initiatives or embedded in teams, and the projects they're assigned to can range in length from a few hours to more than a year. The Covid-19 crisis is increasingly turning companies toward this kind of platform: Consider that this past spring Catalant reported a 250% increase in demand for supply chain expertise. (Full disclosure: Coauthor Joseph Fuller is an adviser to Catalant's board of directors.)

Marketplaces for freelance workers. These platforms, which include Upwork, Freelancer, and 99designs, match individuals with companies for discrete task-oriented projects—designing a logo, say, or translating a legal document. For example, when Amazon wanted to explore creating custom social-media content for its new TV shows, it tested the waters with Tongal, which connects companies to individuals with media know-how. Many freelance platforms offer access to workers from around the world with a wide variety of skills, and payment is often per completed task. Covid-19 is accelerating the move toward these platforms, too: As large swaths of society began working remotely, Upwork saw a spike in demand for digital marketing expertise from companies trying to reach consumers in their homes.

Platforms for crowdsourcing innovation. These platforms, which include InnoCentive and Kaggle, allow companies to post problems among large communities of technically sophisticated users—and reach a far broader base of them than could ever be found or developed in-house. The challenges run the gamut from simple coding projects to complex engineering dilemmas. Working with the platforms, companies often create competitions and offer prizes for the best solutions. The U.S. Transportation Security Administration, for example, ran a $1.5 million competition on Kaggle to help improve the algorithms that predict threats using images from airport scanning equipment. Enel, the Italian multinational energy company, uses multiple crowdsourcing platforms to generate ideas for a host of issues: how to improve recruiting, how to mitigate cybersecurity risks, and even what to do with defunct thermal plants. And the pharmaceutical company AstraZeneca has turned to InnoCentive's "solvers" to develop molecules used in genetic research and testing.

The Growing Supply

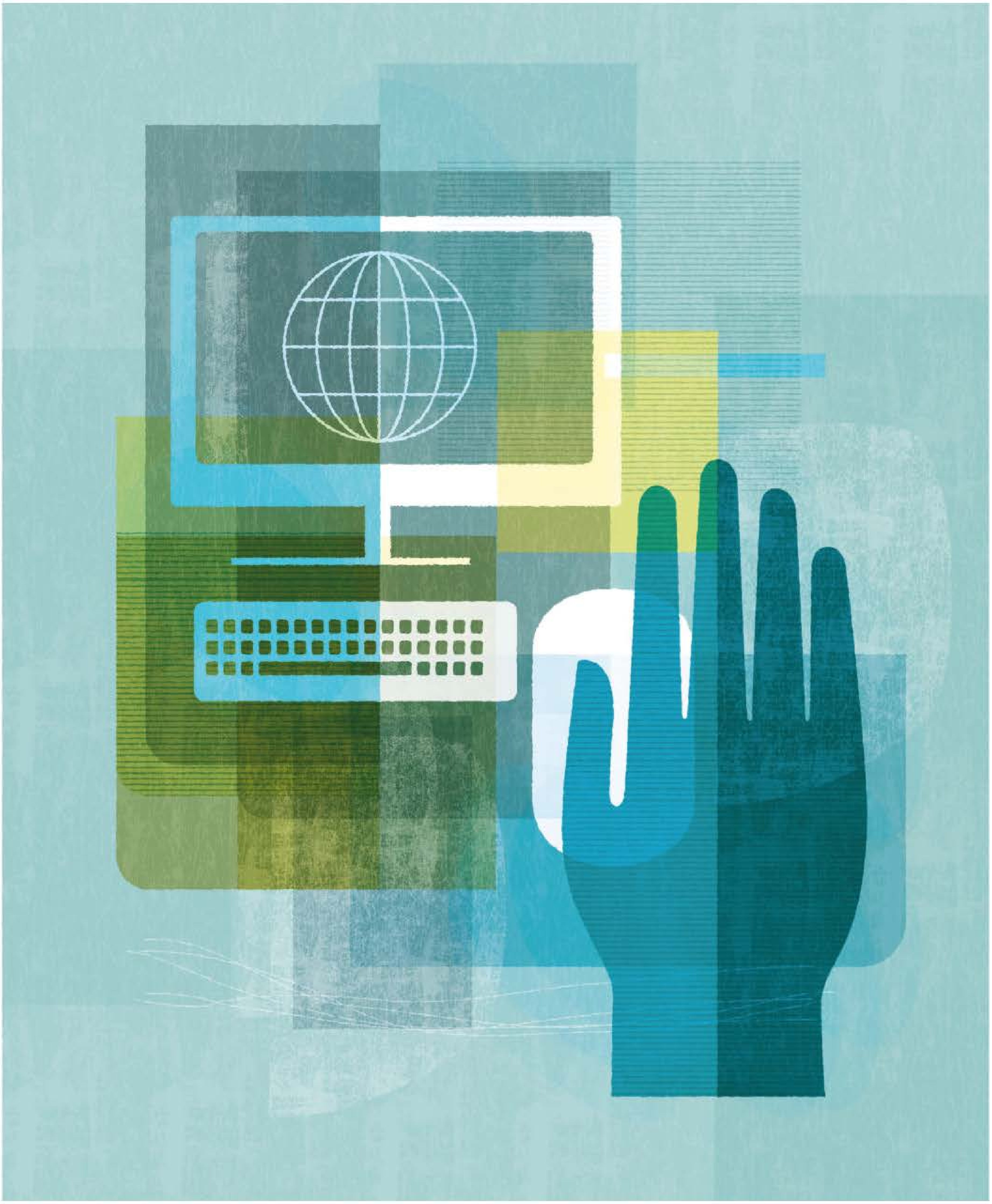
Millions of well-qualified Americans today are attracted to contract work. Freelancers are now estimated to make up roughly a third of the U.S. workforce, and those who are highly skilled represent a small but growing slice of it. And for the first time since 2014, the number of freelancers who say they consider gig work to be a long-term career choice is the same as the number who consider it a temporary way to make money. Early signs suggest that Covid-19 will also speed up this shift.

IDEA IN BRIEF

THE PROBLEM
Thanks to rapid automation, digital transformation, and demographic change, it's harder than ever for companies to find people with the right skills at the right time.

THE RESPONSE
Digital talent platforms now offer companies on-demand access to highly skilled workers. Almost all Fortune *500 companies make use of these platforms, but mainly on an ad hoc basis. The process is costly, inefficient, and decidedly not strategic.*

THE PATH FORWARD
In newly strategic ways, companies need to embrace the full potential of digital talent platforms and the on-demand workforce. Doing so will allow them to create new business models and unlock new sources of value.



Much of the shift is the result of demographic changes that have been under way for four or five decades but that traditional organizations have done little to recognize or address. There are at least four key trends:

Care responsibilities. Single-parent and sandwich-generation families are on the rise. Burdened with childcare and eldercare, many employees are dropping out of the workforce or struggling to manage full-time jobs. Gigs allow them the flexibility to handle their family obligations while delivering quality work.

Female employment. Women's participation in the U.S. labor force has been declining steadily since 2000. Highly skilled, experienced women who take time off to have children and for other life events are finding it difficult to restart their careers or are seeing themselves get sidetracked in traditional organizations. According to a 2009 Center for Work-Life Policy survey, more than two-thirds of "highly qualified" women—that is, those with advanced degrees or high-honors BAs—who drop out of the workforce would not have done so if they'd had access to more-flexible job arrangements. Online talent platforms allow them to more smoothly reenter the workforce and advance their careers.

The aging of America. Workers who are laid off or edged out of traditional firms once they hit their fifties often find that talent platforms offer them a way to continue to use their skills and experience—while maintaining satisfying work/life balance. Given that by 2030 one in five Americans will be older than 65, talent platforms expect that experienced workers with hard-to-find skills will flock to their fold.

The Millennial ascendancy. Millennials, who are already the largest generational cohort in the workforce, tend to be tech-savvy and to prefer to work for themselves rather than for traditional organizations. They want more autonomy and control over their job security than previous generations had.

Early Lessons

In studying how talent platforms are being used, we've identified three areas where companies have consistently found platforms most useful:

Labor force flexibility. When the head of technology at the PGA, Kevin Scott, found himself frustrated by the need to constantly improve and upgrade the organization's digital capabilities and offerings despite a lack of in-house digital talent, he partnered with Upwork to quickly engage software engineers to generate and develop promising ideas. Using Upwork, the PGA was able to get projects started and finished considerably faster than before.

Time to market. Many managers have turned to talent platforms to fast-track processes, meet deliverables, and ensure outcomes. When Anheuser-Busch InBev wanted to quickly expand into new, disruptive products, it realized that despite having a workforce of 150,000, it needed outside help. By tapping into Catalant, the company was able to rapidly get consumer data analyzed and find experts to help roll out products like kombucha tea and spiked seltzer. Similarly, when Matt Collier, a senior director at Prudential PLC, was on a tight deadline to overhaul the training given to insurance agents in Singapore, he turned to Toptal to find designers and other talent that could help him create course materials quickly—and ended up getting the job done for less than it would have cost with traditional vendors.

Business model innovation. Digital talent platforms can also help companies reinvent the way they deliver value. In 2015, when Enel made the strategic choice to embrace the United Nations' 2030 sustainable development goals and build new businesses around them, it engaged the services of several crowdsourcing platforms, among them InnoCentive, which alone gave Enel access to more than 400,000 of its highly skilled problem-solvers worldwide.

Overcoming Resistance

In our survey, C-suite executives in particular seemed to envision a future reliance on talent platforms: Half thought it "highly possible" that their core workforce (permanent full-time employees) would be much smaller in the years to come, and two-thirds told us they expected to increasingly "rent," "borrow," or "share" talent to meet specialized needs.

Why, then, have so few companies designed strategic approaches to working with talent platforms? Because the structures and processes that most organizations have in place have been designed expressly to protect them from external vendors, much as white blood cells protect our bodies from pathogens. If companies want to work successfully with digital platforms, they need new structures and processes that function as immunosuppressants.

That's a major change, and many vice presidents and directors are worried about the practical implications of embracing it. Integrating an on-demand workforce into a firm's strategic core, they recognize, means questioning and redesigning every aspect of the organization. For managers already in the throes of a digital transformation, the prospect of taking on another massive project is hardly appealing.

But a digital transformation requires a talent transformation. The two go hand in hand. Company leaders understand this. Nearly two-thirds of our survey respondents reported that "understanding the digital skills needed for the future" had been a top priority for them in the previous three years. The very nature of work changes with more technology and automation, as does a company's ability to find the skills needed to do that work. Online talent platforms provide a way to develop that ability rapidly and with much less effort.

Engineering the Talent Transformation

To engage with the on-demand workforce at a strategic level, companies will need to focus on five main challenges:

Reshaping the culture. When a company decides to turn core functions over to freelance workers, permanent employees often feel threatened. They struggle with sharing information, raise doubts about the values and work habits of outsiders, and assume the worst. That's what happened when NASA began using crowdsourcing platforms to generate innovative ideas: The organization's engineers began to worry about their job security and question their professional identities. As one employee put it, his colleagues were not used to saying, "Hey, we have a problem and we don't know how to solve it. Can you help?"

Often, the strongest opposition comes from employees who have the least exposure to high-skills talent platforms. The members of Enel's leadership team saw this when they decided to seek external innovation help. Pushback came not just from the rank and file but also from senior leaders who were nervous about the message this approach would send. Was turning to freelancers a sign of weakness? Did it signal that the leadership team lacked confidence in the permanent staff? But with some careful attention to cultural change, the company managed to overcome that resistance. Instead of allowing employees to fear the unknown, Enel focused on educating employees about how they could benefit from an on-demand workforce. According to Ernesto Ciorra, the company's chief "innovability" officer, the first step was to help all full-timers understand that they could use talent platforms to tap a powerful new source of strength. ("Innovability" is Enel's term for innovation plus sustainability.) "We had to become humbler," Ciorra told us, noting how important it was to recognize that at times "the best ideas lay outside the company."

Rethinking the employee value proposition. Companies need to get employees to see how they personally can benefit from talent platforms. That's what one private equity firm did when it rolled out plans to collaborate with Upwork. According to Hayden Brown, Upwork's CEO, the message the firm sent its employees was "This is a way to help you. There are a lot of things that you may be doing in your day-to-day work that you can offload so that you can do even higher-order work or free yourself up to do more strategic thinking."

However, as more teams include full-time and gig employees, working norms will have to change. Full-time employees will often need to step into coach and "connector" roles—asking questions of outside colleagues, identifying discrete pieces of work for external partners, and making it possible for gig workers to tap institutional knowledge. Full-time and gig employees will also have to learn how to work productively across dispersed, often remote teams. They'll have to become adept at collaborating with a revolving set of teammates, articulating previously tacit team norms, and making progress easy for everybody to track. Companies will have to base promotion incentives for managers on outcomes attained rather than full-time employees overseen. Some talent platforms have already created tools—available through their enterprise agreements—that can help companies with these sorts of transitions.

Reorganizing work into components. One of the biggest predictors of whether a company will get the most out of a talent-platform partnership is how well it can break work down into rigorously defined components that can be easily handed over to outsiders. Most companies haven't focused on this, because in traditional workplaces, managers can afford to be vague when making assignments. They know that everybody on the project team will be interacting so frequently that they'll be able to clarify goals and make course corrections over time. But when companies use talent platforms, they have to provide much more up-front definition. Enel learned this lesson quickly when it adopted its open-innovation approach. As Ciorra told us, "You can't just say, 'I need something useful for my renewable-energy problem.'

To get the most out of talent platforms, companies need to break work down into rigorously defined components that can be easily handed over to outsiders. Managers can't be vague.

Instead, you have to be specific: 'I need to reduce the usage of X when I do Y in Z context.'" Only after employees started providing this kind of clarity in crowdsourcing appeals did the company begin getting the help it needed.

Reassessing capabilities. To engage strategically with talent platforms, companies need to develop a portfolio approach to skills. The first step is to understand which capabilities they have in-house, of course. Unilever uses the services of a company called Degreed, which allows employees to develop and certify their expertise in specific areas with so-called microcredentials. The employees get recognition for their know-how and understand exactly which skills they need to acquire to advance; the company benefits because it can now identify which skills the organization already has and who possesses them.

Once the company has mapped internal capabilities, it can prepare for step two: striking the right balance when dividing work up internally and externally. That's something Royal Dutch Shell tackled after identifying an urgent need to generate new revenue through digital and services growth. Using a cloud-based platform called Opportunity Hub that it already had in place, Shell was quickly able to assess the areas where it had the talent to speed toward its strategic goals and where it lacked the right skills. Soon it realized that it had shortfalls in key areas such as digitization and the internet of things—and that it didn't have the time to find and hire the right people. To get working immediately on projects in these areas, Shell partnered with Catalant.

Rewiring organizational policies and processes. This can be surprisingly difficult, as Collier discovered when he tried to bring in Toptal to help Prudential revamp thousands of training slides. A new mindset and a different way of working were necessary. "To adapt our initial contract for freelancers," Collier told us, "we had to navigate a number of necessary processes, including due diligence, intellectual property, technology risk, antibribery, even anti-money-laundering." To get the talent he urgently needed, Collier positioned working with Toptal as an experiment and persuaded stakeholders to give it a try. That paid off. Today, Prudential has a standard service agreement with the platform, and Collier readily leverages it for design and other types of skilled work.

A major challenge for companies that want to harness the on-demand workforce is that they're still subject to regulations and practices that evolved in the predigital era. At Unilever, for example, one struggle was figuring out how to pay freelancers from digital platforms. According to Adfer Muzaffar, a former Unilever senior manager for talent and learning, "Freelancers are accustomed to immediate payment on the platforms via a credit card. But we had longer payment terms, and credit card payment was not an option. We wanted to be able to track who we paid, what we were paying for, what was the quality of work, whether the rates offered were competitive compared to our local costs. So we had to find solutions so that our internal mechanisms and processes could support this new way of working."

TALENT TRANSFORMATIONS ARE often easier than they might seem. That's because many companies have people on staff who already have a wealth of experience with talent platforms—the managers who have used them on an ad hoc basis. These people can provide valuable guidance.

Ultimately, however, to bring about change on the scale needed to innovate new business models, companies will have to appoint a leader to explore how online workforce platforms can unlock new sources of value. This has to be somebody from the C-suite. It might be the CTO, the CMO, the CFO, or the CHRO—we've seen successful examples of each.

In the end, of course, it's not titles that matter. It's finding leaders who understand their companies' strategic positioning, who recognize the revolutionary potential of engaging with the on-demand workforce, and who can inspire a cultural shift in their organizations that will make a genuine transformation possible.

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A framework for aligning growth

MARKETING

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Is Your Marketing Organization *Ready for What's Next?*

PHOTOGRAPHER SAMM ESCOBAR

strategies and capabilities

MARKETING

ABOUT THE ART

Samm Escobar's series Invasivo imagines the beaches of Puerto Escondido contaminated with signage and reflects on the impact of civilization's invasion of the natural world.

Marketing has never been more complex. Sweeping advances in technology have revolutionized and fragmented the discipline, while societal issues such as the Covid-19 pandemic, the Black Lives Matter movement, and the climate crisis have raised expectations for marketers' social performance. This combination of diverse forces has transformed how the marketing function must work, requiring that it become more agile, interdependent, and accountable for driving company growth.

It's no wonder that leaders are uncertain about marketing's role and anxious about its performance. Our survey of marketing managers at 493 companies found that just 20% of those in traditional corporations are satisfied with the effectiveness of their departments; the percentage is only marginally higher among those in digital-native companies. With the support of the Mobile Marketing Association and in collaboration with Peter Schelstraete, formerly the global vice president of digital and assets at Coca-Cola, we spent two years studying the change in marketing organizations. We conducted in-depth interviews with 125 senior marketing leaders across industries to understand the problem and to learn how they were adapting their organizations to compete in this new environment. Most of them, we found, strategically invested in marketing activities, technologies, and structures in order to capitalize on new growth opportunities.

Yet many of their efforts to transform marketing organizations were complicated by the lack of a structured methodology. To create a practical framework that companies could use, we started by identifying the ways in which a marketing function can contribute to company growth. That led us to define six broad areas of value. We then developed an inventory of 72 marketing capabilities, spanning both new and foundational tasks, that are needed to create that value. To our knowledge, this is the most comprehensive compendium of its kind. With input from a steering committee composed of 10 chief marketing officers of leading companies, we then created the analytic process presented here. It can be used to define a marketing value proposition, select the necessary capabilities, and design a competitive next-generation function. Our model has now guided marketing transformations at digital-native and traditional companies across industries, including consumer packaged goods, transportation, financial services, and retail.

DEFINING MARKETING'S VALUE PROPOSITION

We found that marketing leaders struggle with transformation efforts for three key reasons. First, they often look at the transformation as an exercise in retooling technology or reshaping structures rather than rethinking how a changing environment can enable the function to create new types of value. Second, they commonly frame transformation projects as a transition from one state to another—for example, from brand to performance marketing or, simply, old to new. That mindset can inhibit synergies between traditional and current marketing practices, splinter teams, and distract from a focus on customers. Third, leaders often allow modernization efforts to be dispersed across teams or functional areas without a holistic operating framework. As a result, various groups may be pursuing distinct and uncoordinated change initiatives, fragmenting value-creation efforts, and undermining marketing's ability to drive growth.

Without a clear, value-based goal for marketing and a strategy for determining the capabilities needed to achieve

The Covid-19 pandemic, the Black Lives Matter movement, and the climate crisis have raised expectations for marketers' social performance.

IDEA IN BRIEF

THE PROBLEM

Leaders are finding it difficult to think clearly about the role of the marketing function and are anxious about its performance. Yet their efforts to transform marketing have at times been stymied by the lack of a clear methodology for defining its job and designing its work.

THE FRAMEWORK

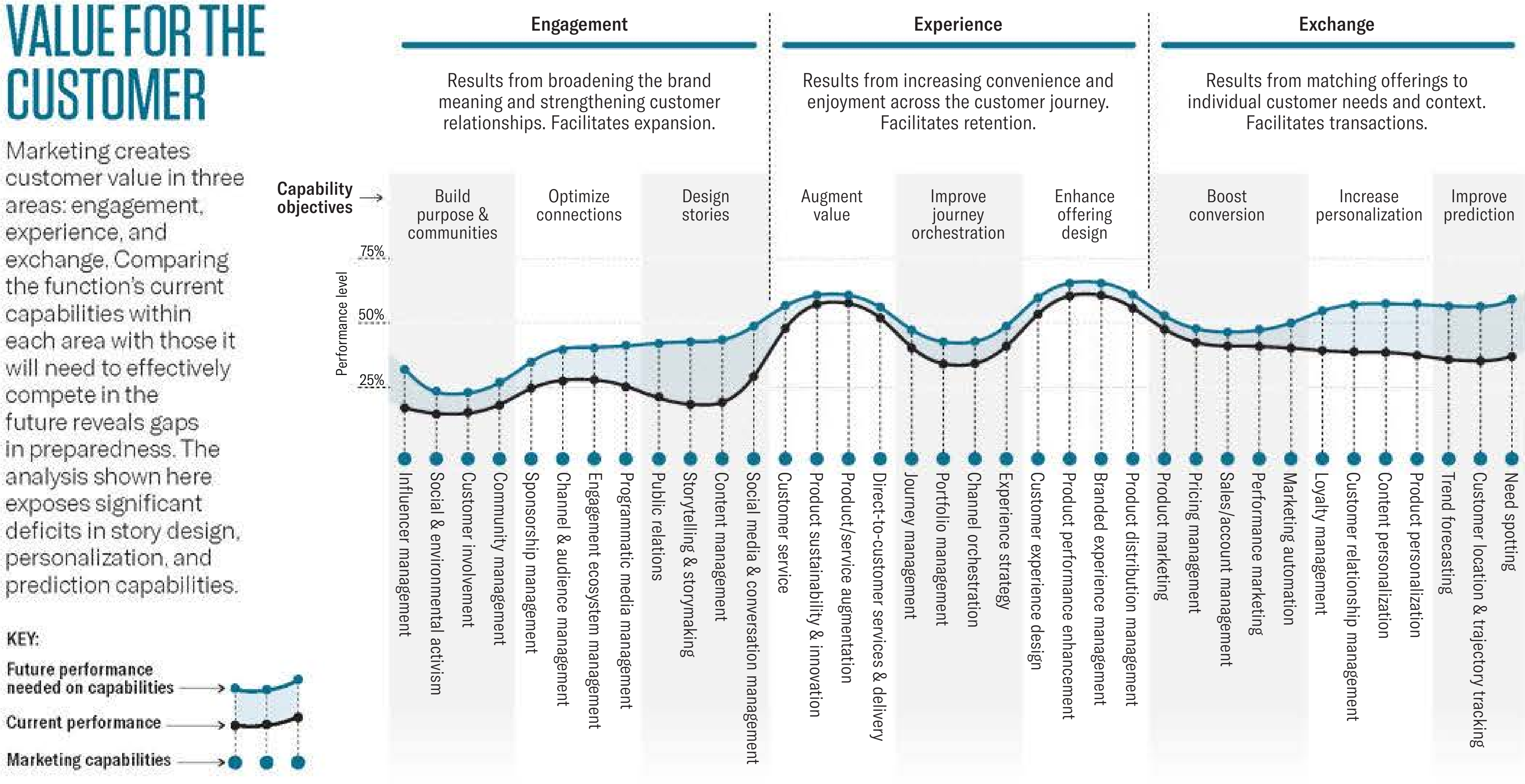
The authors offer a practical framework for clarifying how marketing can contribute to company growth by delivering distinctive types of value to customers and to the organization itself.

THE RESULT

Companies across industries have applied this framework to reveal the gap between their existing and needed areas of focus; to determine which capabilities to develop, which to sustain at their current level, and which to scale down, outsource, or automate; and to redesign their marketing functions to deliver on a new value proposition.

VALUE FOR THE CUSTOMER

Marketing creates customer value in three areas: engagement, experience, and exchange. Comparing the function's current capabilities within each area with those it will need to effectively compete in the future reveals gaps in preparedness. The analysis shown here exposes significant deficits in story design, personalization, and prediction capabilities.



it, new technologies, structures, and processes are unlikely to deliver substantial improvements in performance. Our framework provides both the goal and the strategy. It divides the six kinds of value created into two categories: value for customers and value for the company. Understanding this taxonomy is the first step in articulating your marketing value proposition and the starting point for aligning marketing's activities with the company's growth strategy.

CREATING CUSTOMER VALUE

In the effort to attract, acquire, and retain customers, a marketing team can create value for them in three areas: *exchange, experience,* and *engagement.*

Exchange value. Marketers create this kind of value when they effectively match their offerings to specific customer needs. That requires recognizing when customers are looking for a particular product or service, understanding what problem they are trying to solve, and figuring out what offerings will suit them best—in real time. It calls for sharp *conversion, personalization,* and *prediction* capabilities.

To maximize exchange value, marketers use sophisticated analytics and machine learning to process vast amounts of data on consumer behavior. Allstate, for example, targets dozens of customer types with hundreds of products and tailored messages developed through the use of AI. Alibaba draws on real-time data and continuously fine-tuned learning algorithms to deliver personalized offers to millions of customers. MTailor uses an AI-powered app to measure customers' fit and deliver customized clothing, and Stitch Fix depends on machine learning to help personalize wardrobe recommendations.

The exchange-value-focused CMOs in our study embrace computer science and are emphatic about the importance of AI in shaping the marketing discipline. As one of them put it, "If you can't have a conversation about pixels or attribution models, you are stuck in the past."

Experience value. Marketers focused on creating this kind of value work to eliminate hassles and enhance satisfaction across the customer journey. That requires a focus on improving *journey orchestration, value augmentation,* and *offering design* through constant innovation.

Delta Air Lines, for instance, has become a master at anticipating travelers' needs and addressing them with customized messages. The airline enhances its core product—the flight—by smoothing the service experience around it, providing advice and information on traffic to and from the airport, in-flight dining choices, boarding status, baggage location, and more. Such service proficiency across the customer journey improves both customer satisfaction and loyalty.

VALUE FOR THE COMPANY

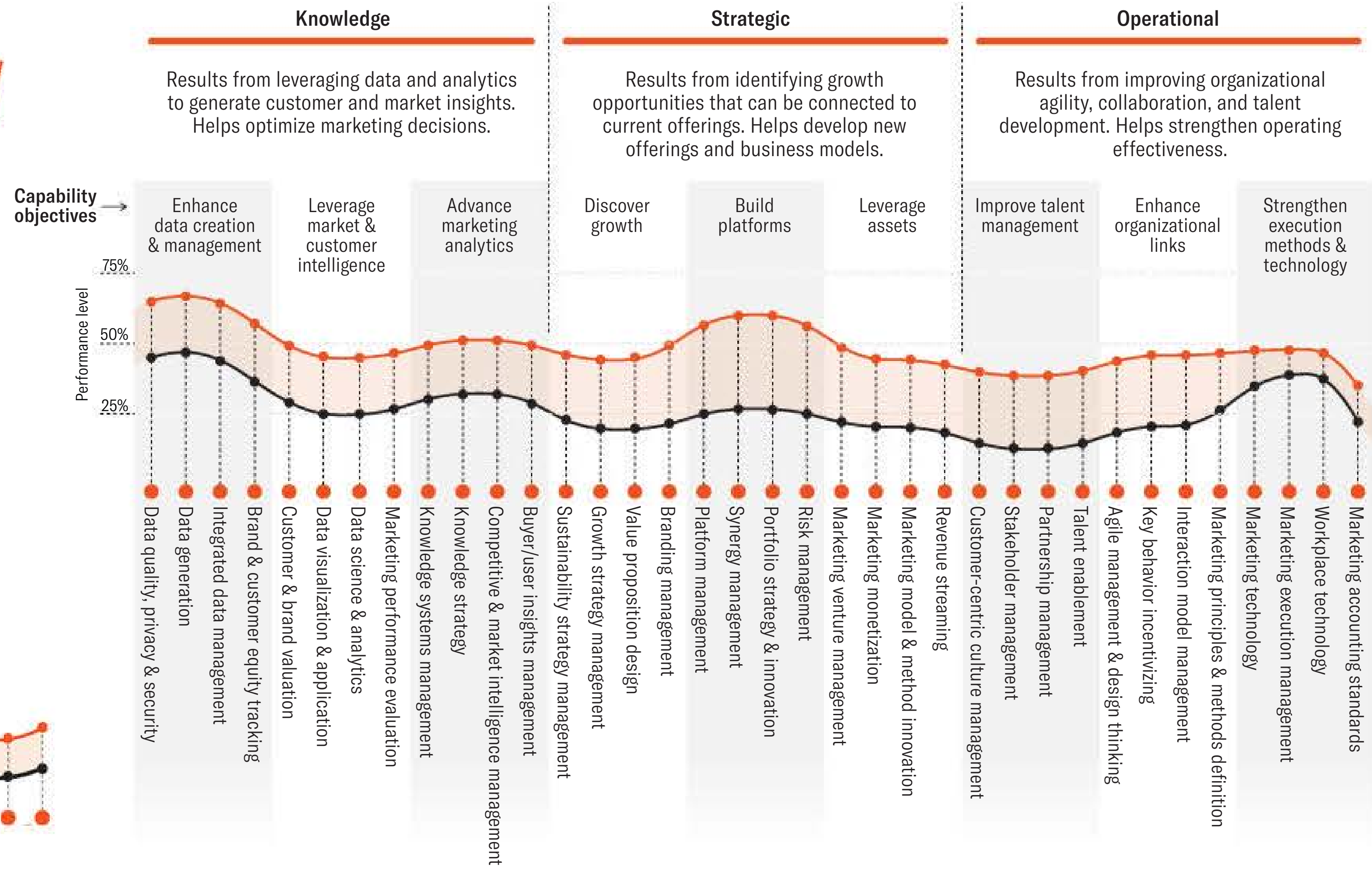
Marketing creates company value in three areas: knowledge, strategic, and operational. Comparing the function's current capabilities within each area with those it will need to effectively compete in the future reveals gaps in preparedness. The analysis shown here exposes significant deficits across all three, most notably in building platforms.

KEY:

Future performance needed on capabilities

Current performance

Marketing capabilities



Some companies are creating new types of experience value in China by innovatively integrating mobile technology and delivery infrastructures. For example, KFC's Shanghai stores accept orders via mobile apps and deliver food to long-distance train passengers at their stop of choice.

Engagement value. This type of value enhances the "meaning" of a company's offering—how customers perceive the brand and their relationship with it. Companies increasingly create it by merging traditional techniques such as storytelling and public relations with dynamic content-management systems that facilitate and sometimes automate the design and delivery of real-time messages. They also nurture a sense of community among users and go beyond a product's traditional functional or emotional benefits to offer societal benefits—for example, by adopting an environmental or social mission. Creating engagement value requires marketers to *build purpose and communities, optimize connections,* and *design stories* to strengthen customer relationships.

Brands across sectors have embraced social activism in authentic ways: REI, with its focus on environmental stewardship; Always, with its commitment to strengthening self-esteem among young women; and Danone, as a champion of more-sustainable food, to name just a few. All these brands have nurtured active customer involvement with their social efforts. Their work has reinforced meaning, relevance, and trust and led to levels of engagement that would have been difficult to achieve through product-centered efforts alone.

Marketers can also increase engagement value by encouraging customers to interact with one another, asking questions, sharing knowledge, and collaborating. To this end, Salesforce created the Trailblazer Community, where customers can join dozens of user groups across industries to share their experiences with the company's products. Similarly, Glossier, a direct-to-consumer beauty-products brand, facilitates community groups focused on pertinent topics. User groups help these companies understand customer needs, enhance retention, lower acquisition costs, generate product ideas, and smooth the introduction of innovations. For instance, Glossier is exploring social commerce that involves community members who act as influencers and even sell its products.

CREATING COMPANY VALUE

The marketing function can also contribute to growth by generating internal value for a company in three areas: *strategic, operational,* and *knowledge.*

Strategic value. Marketing teams often spot ways to expand current offerings and guide the development of new offerings and business models. To do this they need

the ability to *discover growth, build platforms,* and *leverage assets.* Traditionally they focused to a large extent on identifying opportunities for line extensions within a given product category. Today technology allows marketers to help companies enter new categories and even industries as never before. Consider Google's move into autonomous vehicles. The company has continually expanded its capabilities and brand meaning, enabling it to compete in businesses that its former sector rival Yahoo would be hard-pressed to try. The energy drink Red Bull has likewise broken through category boundaries, creating the successful sports and lifestyle platform Red Bull Media House.

Marketing teams can also help companies capture new revenue streams from existing assets or practices—for example, by monetizing marketing data and activities. Amazon's advertising unit has reported revenue of $10 billion from product sponsorships, placements, the creation of brand-specific stores, and other efforts. Target has created a new revenue stream with Roundel, its recently rebranded media network, which develops content and campaigns for its brand and agency clients, using its own customer data. Caterpillar has placed sensors in more than a million products to generate utilization data services that help large construction and mining companies optimize the maintenance and use of their equipment.

Marketing leaders can also play a central role in creating or identifying new business models and technologies that spur customer demand. For example, many large companies—Unilever among them—have established units to manage investments in start-ups and new ventures in emerging marketing technology or entertainment services that, among other things, can help shape product, service, or marketing efforts.

Operational value. Marketing's role in strengthening a company's operating effectiveness has never been more important. Yet many marketing leaders struggle with the proliferation of independent and specialized teams engaged in an expanding array of activities across the organization. Because these teams often have divergent methods and views about the role of marketing and its contribution to

As a major producer and user of data, marketing can create knowledge value by collaborating with IT and data science teams.

growth, their work can be hard to integrate. As one of the executives in our study explained, “No technology in the world, no digital marketing, no attribution model, can overcome a lack of alignment across an organization. If one team is measuring success one way and another team is measuring success another way—good luck making it work.” The key here is the ability to *improve talent management, enhance organizational links,* and *strengthen execution methods and technology.*

Marketing organizations create operational value for a company by aligning disparate teams around a shared growth agenda and marketing approach and increasing their speed, agility, and collaboration. In part that requires constantly upgrading marketing technologies to automate and integrate many aspects of customer relationship management at scale and in real time. We saw three strategies for achieving this.

First, effective CMOs establish a clear set of marketing principles and methods—a blueprint for getting the function’s work done. It includes developing shared language and frameworks, understanding how relevant key performance indicators are connected, and creating common accounting standards and flexible decision processes.

Second, they foster an organizational culture that focuses on customer needs and more-fluid interactions between areas of expertise. One tool we saw put to that purpose was “key behavioral indicators” (KBIs), such as levels of interpersonal trust and transparency, which were accorded the same status as KPIs in performance evaluations. That’s because when performance on KBIs falls, one CMO told us, the time needed for alignment and coordination increases, reducing speed to market.

Third, these CMOs adopt technologies that help reduce the costs of coordination and collaboration and increase efficiency, transparency, and trust by enabling interaction across teams. Those technologies include project management applications such as Slack, communication platforms, knowledge management systems, and live meeting webcasts to promote inclusion.

Knowledge value. In its role representing the “voice of the customer,” the marketing function can create knowledge value, principally through the astute use of data science. Some established customer-intelligence activities, such as user-needs assessments and sentiment tracking, remain important. But newer technologies open up further opportunities. For example, AI-powered data analytics systems can increasingly tease out the causal relationship between marketing investments and business outcomes, improving marketing efficiency. The success of such initiatives depends on *enhancing data creation and management, leveraging market and customer intelligence,* and *advancing marketing analytics.*

In addition, new technologies are enabling ever more innovative ways for companies to capture market signals and use data. For instance, the Freestyle vending machine installed by Coca-Cola across thousands of quick-service restaurants allows customers to select from dozens of flavor mixes, which are individually dispensed. By tracking and reporting these orders, the machines provide granular, real-time, first-party data on consumer preferences: a highly valuable asset for a non-direct-to-consumer firm. The company has used this data to inform its R&D and to launch new products.

As a major producer and user of data, marketing can also create knowledge value by collaborating with IT and data science teams to generate a single source of market intelligence, devise ways to define and measure key marketing metrics, and develop mechanisms for protecting customer information. Adobe executives credit the creation of such a “single source of truth” as a key turning point in accelerating the company’s transformation effort.

DETERMINE YOUR MARKETING VALUE PROPOSITION

With a clear understanding of these six broad types of value and the capabilities needed to deliver them, leaders can gauge the importance of each to future growth. That analysis will yield the function’s value proposition—its statement of purpose.

Using our framework, a team of marketing leaders and other executives can engage in a series of sessions in which they systematically rate the importance to growth over the coming two or three years of each of the 72 capabilities underpinning the six value areas. For example, they can ask, Within exchange value, how important to growth on a 1 (low) to 10 (high) scale will trend forecasting be? Product personalization? Marketing automation? And so on.

The team can use a discrete-choice method such as conjoint analysis or MaxDiff to analyze data from various stakeholders in determining the relative importance of the types of value. This step helps leaders think clearly about the difference between the value that marketing currently creates and what it *should* create according to its potential to drive sales, profits, and company growth. For instance, our analyses across 10 industries show that technology-enabled convenience benefits are more important to buyers of services than to buyers of products. In contrast, purpose-related benefits, such as a brand's stance on social issues, are more important to buyers of consumer packaged goods than to buyers of services.

During this exercise it is important to be clear about what's feasible. We have seen no company become "best in class" in all six areas simultaneously; instead each organization makes careful choices about what it will focus on given its growth goals, industry conditions, competitive environment, and other factors that affect strategy. All companies have constraints related to finances, data availability, and their marketing function's heritage. The key in refining the marketing value proposition is to determine which subset of value areas marketing can best develop, given its resources and constraints.

ASSESS YOUR FIT

This exercise reveals where the greatest opportunity to create value lies and what specific capabilities will be needed to realize it. The team can gauge marketing's readiness to deliver by scoring its *current* performance on each of the 72 capabilities. (See the sidebar "A Digital Scoring Tool" for how to access a simplified version of our assessment.) When those scores are plotted on a chart, gaps between current capabilities and future needs reveal where the organization should act.

This analysis won't yield a mandate for specific change. Rather, it will provide a road map showing a variety of paths that leaders can follow, taking into account the company's priorities and capabilities. Typically, companies select a subset of areas for investment, considering both the fit level revealed by the analysis and the efforts that will be required to address those areas.

CREATE YOUR CHANGE STRATEGY

Once marketing's areas of strength and weakness have been identified, it's clearer which capabilities to develop, which to sustain at their current level, and which to scale down, outsource, or automate. But it's usually easier for leaders to launch new initiatives or even maintain the status quo than to pull resources from existing activities. In our conversations with CMOs, many talked about the challenge, and the importance, of deciding what *not* to do, particularly in large organizations where resources and an appetite for exploration may be substantial.

Consider how the chief marketing officer of a leading transportation technology firm we worked with applied the framework. She formed a marketing transformation team that included the marketing directors of each geographic region, members of the global marketing organization, and representatives from human resources. In a series of work sessions over six weeks, the team rated the importance to company growth of capabilities within each area and aligned around a value proposition that focused on increasing exchange, engagement, operational, and knowledge value.

We then worked with the team to evaluate the current level of each capability and the level needed to help deliver on the new value proposition. In a final work session the leaders made specific choices about their organizational priorities for the following year and where they needed to invest to achieve them. This process underscores the assessment's role as a form of guidance

A Digital Scoring Tool

The scoring exercise we describe here can be done manually. For a quick introduction to our analytic process, readers can take a simplified version of the online assessment created by our firm, MarCaps, which provides a general score for the fit between a company's current and necessary marketing capabilities, and benchmarks the organization against others that have used the tool. The assessment is available at www.marcaps.com/research.

An analysis of our scoring exercise will yield a road map with a variety of paths that leaders can follow according to the company's priorities and capabilities.

rather than a strict mandate. Although the analysis revealed opportunities for improvement in each of the value categories the team selected, the group decided not to invest substantially at that time in enhancing strategic value. The CMO and her team clearly saw an opportunity to create that kind of value by finding new sources of revenue, but various organizational constraints suggested that they could reap a higher ROI on their investments in capability building elsewhere.

The priorities they selected included prediction and conversion management, storytelling and content personalization, market and customer intelligence, talent enablement, organizational links, data science and analytics, and marketing technology. This new focus led to the formation of the company's first marketing operations and capability functions, the formalization of a branding team, and the integration of its product and performance marketing activities into the team focused on demand generation. Just as important, the work created a clarity of purpose that provided unified and much-needed direction to the company's marketing staff.

As the CMO put it, "It helped us get aligned within our team and with the executive team on what we needed to be best in the world at, what we needed to be good at, and what we could assign to others."

MARKETING LEADERS HAVE recognized and acted on the need to change their organizations. But most have struggled to carry out changes in ways that advance marketing's operating effectiveness. The framework presented here brings clarity to the process and guides the design of a marketing organization for our time—one built as a coalition to create value and drive company growth.

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WHAT IS AVAXHOME?

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DIVERSITY

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Getting *Serious* About Diversity

Enough Already with the Business Case

DIVERSITY

“The business case has been made to **demonstrate the value a diverse board brings to the company** and its constituents.”

“The case for establishing a truly diverse workforce, at all organizational levels, grows more compelling each year.... **The financial impact—as proven by multiple studies—makes this a no-brainer.**”

“The business case is clear: **When women are at the table, the discussion is richer,** the decision-making process is better, and the organization is stronger.”

THESE RALLYING CRIES for more diversity in companies, from recent statements by CEOs, are representative of what we hear from business leaders around the world. They have three things in common: All articulate a business case for hiring more women or people of color; all demonstrate good intentions; and none of the claims is actually supported by robust research findings.

We say this as scholars who were among the first to demonstrate the potential benefits of more race and gender heterogeneity in organizations. In 1996 we published an HBR article, “Making Differences Matter: A New Paradigm for Managing Diversity,” in which we argued that companies adopting a radically new way of understanding and leveraging diversity could reap the real and full benefits of a diverse workforce. This new way entailed not only recruiting and retaining more people from underrepresented “identity groups” but also tapping their identity-related knowledge and experiences as resources for learning how the organization could perform its core work better. Our research showed that when companies take this approach, their teams are more effective than either homogeneous teams or diverse teams that don’t learn from their members’ differences. Such companies send a message that varied points of view are valued and don’t need to be suppressed for the sake of group cohesion. This attitude encourages employees to rethink how work gets done and how best to achieve their goals.

We called this approach the *learning-and-effectiveness paradigm.* We argued that cultivating a learning orientation toward diversity—one in which people draw on their

Increasing diversity does not, by itself, increase effectiveness; what matters is how an organization harnesses diversity, and whether it's willing to reshape its power structure.

experiences as members of particular identity groups to reconceive tasks, products, business processes, and organizational norms—enables companies to increase their effectiveness. We stand by the research on which that article was based, and we continue to advocate its conclusions.

The problem is that nearly 25 years later, organizations have largely failed to adopt a learning orientation toward diversity and are no closer to reaping its benefits. Instead, business leaders and diversity advocates alike are advancing a simplistic and empirically unsubstantiated version of the business case. They misconstrue or ignore what abundant research has now made clear: Increasing the numbers of traditionally underrepresented people in your workforce does not *automatically* produce benefits. Taking an "add diversity and stir" approach, while business continues as usual, will not spur leaps in your firm's effectiveness or financial performance.

And despite all the rhetoric about the value of diversity, white women and people of color remain seriously underrepresented in many industries and in most companies' senior ranks. That lack of progress suggests that top executives don't actually find the business case terribly compelling.

On that point, we have to agree: The *simplistic* business case isn't persuasive. A credible and powerful case *can* be made, however, with three critical modifications. First, platitudes must give way to sound, empirically based conclusions. Second, business leaders must reject the notion that maximizing shareholder returns is paramount; instead they must embrace a broader vision of success that encompasses learning, innovation, creativity, flexibility, equity, and human dignity. Finally, leaders must acknowledge that increasing demographic diversity does not, by itself, increase effectiveness; what matters is how an organization harnesses diversity, and whether it's willing to reshape its power structure.

In this article we expose the flaws in the current diversity rhetoric and then outline what a 21st-century learning-and-effectiveness paradigm could look like—and how leaders can foster it.

A CRITIQUE OF THE BUSINESS CASE FOR DIVERSITY

Let's start with the claim that putting more women on corporate boards leads to economic gains. That's a fallacy, probably fueled by studies that went viral a decade ago reporting that the more women directors a company has, the better its financial performance. But those studies show correlations, not causality. In all likelihood, some other factor—such as industry or firm size—is responsible for both increases in the number of women directors and improvement in a firm's performance.

In any case, the research touting the link was conducted by consulting firms and financial institutions and fails to pass muster when subjected to scholarly scrutiny. Meta-analyses of rigorous, peer-reviewed studies found no significant relationships—causal or otherwise—between board gender diversity and firm performance. That could be because women directors may not differ from their male counterparts in the characteristics presumed to affect board decisions, and even if they do differ, their voices may be marginalized. What is more pertinent, however, is that board decisions are

IDEA IN BRIEF

THE CONTEXT
Business leaders often make a business case for diversity, claiming that hiring more women or people of color results in better financial performance.

THE PROBLEM
There's no empirical evidence that simply diversifying the workforce, absent fundamental changes to the organizational culture, makes a company more profitable.

A BETTER APPROACH
Companies can benefit from diversity if leaders create a psychologically safe workplace, combat systems of discrimination and subordination, embrace the styles of employees from different identity groups, and make cultural differences a resource for learning and improving organizational effectiveness.

When diversity initiatives promise financial gains but fail to deliver, people are likely to withdraw their support for them.

typically too far removed from firms' bottom-line performance to exert a direct or unconditional effect.

As for studies citing the positive impact of racial diversity on corporate financial performance, they do not stand up to scrutiny either. Indeed, we know of no evidence to suggest that replacing, say, two or three white male directors with people from underrepresented groups is likely to enhance the profits of a *Fortune* 500 company.

The economic argument for diversity is no more valid when it's applied to changing the makeup of the overall workforce. A 2015 survey of Harvard Business School alumni revealed that 76% of those in senior executive positions believe that "a more diverse workforce improves the organization's financial performance." But scholarly researchers have rarely found that increased diversity leads to improved financial outcomes. They *have* found that it leads to higher-quality work, better decision-making, greater team satisfaction, and more equality—under certain circumstances. Although those outcomes could conceivably make some aspects of the business more profitable, they would need to be extraordinarily consequential to affect a firm's bottom line.

Moreover, advocates who justify diversity initiatives on the basis of financial benefits may be shooting themselves in the foot. Research suggests that when company diversity statements emphasize the economic payoffs, people from underrepresented groups start questioning whether the organization is a place where they really belong, which reduces their interest in joining it. In addition, when diversity initiatives promise financial gains but fail to deliver, people are likely to withdraw their support for them.

Still another flaw in the familiar business case for diversity is the notion that a diverse team will have richer discussions and a better decision-making process simply because it is diverse. Having people from various identity groups "at the table" is no guarantee that anything will get better; in fact, research shows that things often get worse, because increasing diversity can increase tensions and conflict. Under the right organizational conditions, though, employees can turn cultural differences into assets for achieving team goals.

Studies have shown, for example, that diverse teams realize performance benefits in certain circumstances: when team members are able to reflect on and discuss team functioning; when status differences among ethnic groups are minimized; when people from both high- and low-status identity groups believe the team supports learning; and—as we reported in our earlier article—when teams orient members to learn from their differences rather than marginalize or deny them. But absent conditions that foster inquiry, egalitarianism, and learning, diversity either is unrelated to or undermines team effectiveness.

Many progressive companies today recognize the conditional nature of the diversity-performance link and have moved beyond "diversity," the catchword of the 1990s, to "diversity and inclusion." They understand that just increasing the number of people from underrepresented groups is not meaningful if those employees do not feel valued and respected. We applaud the emphasis on inclusion, but it is insufficient because it doesn't fundamentally reconfigure power relations.

Being genuinely valued and respected involves more than just feeling included. It involves having the power to help set the agenda, influence what—and how—work is done, have one's needs and interests taken into account, and have one's contributions recognized and rewarded with further opportunities to contribute and advance. Undertaking this shift in power is what the learning-and-effectiveness companies we wrote about in 1996 were doing, and it's what enabled them to tap diversity's true benefits.

THE LEARNING-AND-EFFECTIVENESS PARADIGM, REDUX

What we've learned since we wrote our original article is that embracing a learning orientation toward diversity turns out to be quite difficult. To make real progress, people—and the organizational cultures they inhabit—must change. But instead of doing the hard work involved, companies have generally stuck with easier, more limited approaches that don't alter the status quo.

We previously identified four actions that were helping business leaders and managers shift to a learning-and-effectiveness approach. We still consider those actions fundamental, but we present them anew here to underscore the message in light of today's challenges and opportunities.

Build trust. The first task for those in charge is to build trust by creating a workplace where people feel safe

expressing themselves freely. That requires setting a tone of honest discourse and getting comfortable with vulnerability—one's own and others'.

At no time has this need been greater in the United States than during the current unrest spurred by outrage over police brutality against Black men and women—a legacy of centuries of racism. Two weeks into the nationwide protests that began in May, white leaders in companies across the country struggled with how to respond. Publicly expressing support for the Black Lives Matter movement was one thing; knowing what to say to Black employees, who might already have been feeling marginalized or undervalued at work, was quite another. Leaders who were used to wielding authority grounded in their subject-matter expertise had no comparable expertise to handle the deep grief, rage, and despair felt by many of their employees—especially their Black employees. And Black leaders, many with firsthand experience of police mistreatment and other forms of racial oppression, faced the challenge of managing their own strong emotions and speaking their truth without appearing biased against whites.

Yet troubling times provide opportunities for leaders to begin conversations that foster learning. In response to public acts of racial injustice, for example, white leaders can reach out from a place of vulnerability, as a way of creating connection and psychological safety, rather than staying silent from a place of privilege and self-protection. This was the choice made by a white senior partner in a global professional services firm when he decided to convene a special virtual meeting with his teams across the country. He knew that if he said nothing about the recent racist incidents, his silence would speak for him, with a message not of neutrality but of complicity. Just weeks before, he'd been eloquent in addressing the distress wrought by the Covid-19 pandemic, but when it came to race, he felt at a complete loss. What he astutely realized, though, was that people needed him simply to begin a dialogue, acknowledge his pain and theirs, and give them the space to talk about their experiences inside and outside the firm, if they wished. He had no solutions, but that moment required none—just a willingness to speak from the heart and listen compassionately to whatever his colleagues might share. Perhaps most important, he was willing to risk not getting his own words or actions exactly right, and he was ready to receive feedback with openness and equanimity.

Actively work against discrimination and subordination. Creating psychological safety and building employees' trust can be an excellent starting point for the second action: taking concrete measures to combat forms of discrimination and subordination that inhibit employees' ability to thrive. This action calls for both individual and collective learning aimed at producing systemic change.

Over the years we've seen the emergence of a multibillion-dollar industry dedicated to advancing such goals. Companies have adopted a slew of initiatives as a result: affinity groups, mentoring programs, work-family accommodation policies, and unconscious-bias training, to name a few. But the sad truth is that these efforts largely fail to produce meaningful, sustained change—and sometimes even backfire.

Leaders are the stewards of an organization's culture; their behaviors and mindsets reverberate throughout the organization. Hence to dismantle systems of discrimination and subordination, leaders must undergo the same shifts of heart, mind, and behavior that they want for the organization as a whole and then translate those personal shifts into real, lasting change in their companies.

To that end, a first step for leaders is to learn about how systems of privilege and oppression—racism, sexism, ethnocentrism, classism, heterosexism—operate in the wider culture. Numerous excellent books and articles can help with this work; they have the added benefit of relieving those on the receiving end of oppressive systems from the burden of educating their majority-group counterparts. And the impact can be surprising. For example, major news organizations picked up the story of a Black flight attendant who noticed a white male passenger reading a book about white people's reluctance to confront racism. She struck up a conversation with the man and had a moving exchange with him, eventually learning that he was the CEO of a major airline. The encounter filled her with hope: Here was a powerful executive—someone in a position to effect change—making a genuine effort to understand systemic racism.

Educating oneself is important, but it will be meaningless unless leaders take the next step: investigating how their organization's culture has reproduced systems of oppression, undercutting some groups' opportunities to thrive and succeed, while giving others a boost. As part of that investigation, leaders must examine what stereotypes and assumptions they hold about employees' competencies and suitability for jobs, acknowledge that they have blind spots, and come to see how their personal defenses can shut down learning—their own and their organization's. Working with hundreds of leaders over the years, we have seen how this individual learning journey can be a transformational experience that often leads to individual behavioral change.

Learning from cultural differences is more likely once leaders have created trust, begun to dismantle systems of discrimination and subordination, and embraced a range of styles.

But that's not enough. The critical final step in rooting out systems of discrimination and subordination is for leaders to use their personal experience to spur collective learning and systemic change. It is here that even the most progressive leaders' efforts tend to stall. Such efforts require a well-articulated, widely shared organizational mission to motivate and guide change, together with a collective process of continuous reflection and consciousness-raising, experimentation, and action—followed by sustained attention, monitoring each change for impact, and making adjustments accordingly.

An example of this process comes from a midsize consulting firm whose partners—almost all white men—had begun to fear that high turnover among the white women and people of color they employed meant they were losing talent, potentially undermining the firm's competitiveness. Taking a hard look at their culture, they identified a flawed approach to project assignment that was inadvertently contributing to systematic inequities. Plum projects were going disproportionately to white men; it was the old story of people having an easier time identifying talent when it comes in a package that looks like them. When a particularly challenging project for an important client came up—the kind that can stretch and give exposure to a promising young consultant—the white male partners staffed it with their go-to people: other white men. Meanwhile, white women and people of color, despite having been recruited from the same highly competitive MBA programs as their white male counterparts, regularly were assigned the more mundane projects. They got stuck doing tasks they had long ago mastered, which led many to leave the firm. Come promotion time, the few who remained were either counseled out or told they still weren't ready for partnership; women waited two years longer than men, on average, to make partner.

But were the go-to people actually better? Did they really have more "raw horsepower," as the partners believed? When those leaders examined their developmental practices, they were chagrined to see clear patterns in who received coaching, whose mistakes were forgiven, and who got second and even third chances to prove themselves: the white men. So after an uncomfortable reckoning with their biases, the partners decided to experiment with making comparable investments in people they'd previously overlooked—people they might have automatically, if not quite consciously, written off simply as hires to meet diversity goals. When they started treating white women and people of color more like the white men they'd favored, they were surprised to find a bigger, more diverse pool of talent than they'd expected.

Embrace a wide range of styles and voices. The third necessary action for leaders and managers involves actively trying to understand how organizational norms might implicitly discourage certain behavioral styles or silence certain voices. For example, in companies where the prototypical leader is a white man who earns respect by speaking assertively, women and Black men, who are often penalized for being assertive, may find themselves in a double bind: They can conform to the organization's norms and deviate from cultural prescriptions for their group, or they can do the opposite. But either way, they violate one set of expectations, risking marginalization and diminished chances for advancement.

Managers may believe they're giving helpful feedback when they tell a large Black man to smile more so that his white colleagues won't fear him, when they ask a Latina who advocates passionately for a project to dial it down, when they encourage a no-nonsense white woman to be "nicer," or when they urge a soft-spoken woman of East Asian descent to speak more forcefully. But all such messages communicate that these employees must be ever-mindful of how others see them in relation to stereotyped images of their group, making it harder for them to bring their talents and perspectives to the table. Companies need performance management systems that tie feedback and evaluation criteria to bona fide task requirements rather than group stereotypes.

Make cultural differences a resource for learning. For companies shifting to a learning-and-effectiveness paradigm, the fourth action is to encourage—and draw lessons from—open discussions about how identity groups shape employees' experiences inside and outside the organization. Leaders should frame those experiences as a valid source of ideas for enhancing the organization's work and culture. Even if employees champion ideas that are at odds with the company's profit goals, those ideas may still be worth pursuing if they help the organization achieve its mission or uphold its values.

Over the years, we have seen that learning from cultural differences is more likely to occur once the previous three actions are under way: Leaders have created trust, begun

DIVERSITY

men. Women had a more difficult time building support networks inside their firm, had fewer mentors, and were neglected by high-status groups such as the firm's institutional sales force—an important source of industry information. And so, unlike men, women built their franchises on portable, external relationships with clients, companies, and the media. In addition, they forged unconventional in-house relationships with their firm's retail sales force—also an important source of industry information but a low-status group that male analysts typically ignored. Not only were women stars able to maintain their performance upon switching firms but, generally speaking, they outperformed their male peers over the nine-year period of the study. In short, women were not only different; they were better.

In a follow-up set of case studies, coauthored with Ashish Nanda and Laura Morgan Roberts, respectively, Groysberg showed how a Wall Street firm's research director leveraged

to dismantle systems of discrimination and subordination, and embraced a broad range of styles. Without such efforts, talking about differences happens (if it happens at all) only in reaction to diversity-related crises—when discussions tend to be fraught and people's capacity to learn is diminished.

An example of learning from gender diversity comes from Boris Groysberg's study of top-ranked research analysts on Wall Street. In exploring whether they take their star status with them when they switch firms, he found a fascinating sex difference: Unlike their male counterparts, whose performance worsened upon changing firms, women who made a move experienced no such performance drop. The reason, Groysberg concluded, was that women analysts faced sex discrimination, and so they had to do the job differently from

women's "difference" to everyone's advantage. He aggressively recruited talented women for the analyst role and then set out to create the conditions that would enable them to thrive, emphasizing team culture, allowing flexible work arrangements, and instituting systems that gave analysts regular, unbiased feedback to help them set personal improvement goals. Additionally, he encouraged people to develop their own style and voice. As one woman star in the firm noted, "We have always been given the freedom to be ourselves." Another said, "I never felt I had to pretend to be male to fit in here." Within three years this firm had the highest percentage of top-ranked women analysts of any firm on Wall Street and the lowest rate of female turnover. Furthermore, the research department moved in the rankings from 15th to first, and the unique approach that women had developed for building their franchises became the basis for training all the firm's analysts. What the research director figured out was that gender had given women analysts a unique set of experiences, and those, together with their resilience and ingenuity, led to new insights into how to do the job better.

We have also seen how the mere act of learning across employees' differences can have a positive impact, even when the content of the learning is unrelated to people's identities. The benefits are particularly strong when the differences have been historically fraught with tension. In a study of more than 400 retail bank branches in the northeastern United States, we, together with Irene Padavic of Florida State University, found that the more racially diverse the branch, the better its performance—but only for branches in which *all* employees, across all racial groups, experienced the environment as conducive to learning. Some of that learning definitely came from sharing cultural knowledge—for example, a white branch manager described how his Chinese coworker's explanations of norms in the Chinese community helped him better serve that segment of customers. But many of the branches' tasks were technical and unrelated to people's cultural backgrounds. In those cases, the benefit from diversity seemed to stem mainly from the process of learning—a process that involves taking risks and being unafraid to say "I don't know," "I made a mistake," or "I need help." Showing such vulnerability across divisive lines of difference, such as race, and being met with acceptance rather than judgment or rejection, strengthens relationships. Stronger relationships in turn increase resilience in the face of conflict and other stressors. In short, for culturally diverse teams, the experience of learning across racial differences can, in and of itself, improve performance.

INEQUALITY IS BAD for both business and society. Organizations limit their capacity for innovation and continuous improvement unless all employees are full participants in the enterprise: fully seen, heard, developed, engaged—and rewarded accordingly. Moreover, such treatment can unleash enormous reserves of leadership potential too long suppressed by systems that perpetuate inequality.

When the only legitimate conversation about diversity is one that links it to economic gains, we tend to discount the problem of inequality. In fact, studies have shown that making the economic case diminishes people's sense that equality is itself important, limits socially conscious investors' ability to promote it, and may even increase bias. Furthermore, focusing on financial benefits sends a message to traditionally underrepresented employees that they are worth hiring and investing in only because having "their kind" in the mix increases the firm's profitability.

Companies will not reap benefits from diversity unless they build a culture that insists on equality. Treating differences as a source of knowledge and connection lays the groundwork for such a culture. But as part of that process, firms may have to make financial investments that they won't recoup, at least in the short run, and more will be required of top leaders, managers, and rank-and-file employees alike. Everyone will have to learn how to actively listen to others' perspectives, have difficult conversations, refrain from blame and judgment, and solicit feedback about how their behaviors and company practices might be impeding the push for a culture that supports learning, equality, and mutual respect. Developing those capacities is no small feat in any context; it is even more challenging for people working across cultural identity differences. But teams that truly embrace the learning-and-effectiveness paradigm will come to understand that homogeneity isn't better; it's just easier. They'll realize, too, that the benefits of diversity arise as much from the collective work of developing those key capacities as from the collective learning they enable.

Finally, while there *is* a business case for diversity—one that rests on sound evidence, an expansive definition of what makes a business successful, and the presence of facilitating conditions—we are disturbed by the implication that there must be economic grounds to justify investing in people from underrepresented groups. Why should anyone need an economic rationale for affirming the agency and dignity of any group of human beings? We should make the necessary investment because doing so honors our own and others' humanity and gives our lives meaning. If company profits come at the price of our humanity, they are costing us too much. And if diversity initiatives fail to reckon with that trade-off, they will amount to little more than rearranging the deck chairs on a sinking ship.

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INNOVATION

AUTHOR

Curtis R. Carlson
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Innovation for Impact Value creation as an active learning process

PHOTOGRAPHER
MATTHIAS SCHALLER

Marc Chagall

In 1998

I became the CEO of SRI International, the famous research center that received the first internet transmission, developed the first AI-based robot, launched the personal computing revolution, and created inventions such as the computer mouse, electronic banking, and robotic surgery. In 1998, though, SRI was on its last legs. At my first off-site meeting, a manager stood up and told me we were not going to grow because we couldn't. We were broke, our facilities urgently needed repair, and the land they sat on was being sold. Teams worked in silos, and most of the senior managers were pursuing their own agendas with little regard for what others were doing.

When I left in 2014, revenue had more than tripled, and world-changing ideas had generated tens of billions of dollars of new marketplace value. By revamping the way employees worked, using a systematic, efficient process for value creation, we reestablished SRI as one of the world's leading innovation enterprises. The success rate of our projects dramatically improved, and our people gained critical skills that would last a lifetime.

In the following pages I describe the process we used, which enabled us to produce technology such as HDTV and Siri (now on the iPhone). Our methodology is applicable for creating both disruptive and incremental innovations, and versions of it are used in major universities, national laboratories, and large global companies. It works for people in all positions and all professions because value creation is everyone's job.

Since leaving SRI, I have partnered with a former colleague there, Len Polizzotto, to further develop the methodology at Northeastern University and Worcester Polytechnic Institute. We call our approach Innovation for Impact, and in 2017 I coauthored a National Academy of Engineering report documenting aspects of the research behind it.

Creating Value Through Active Learning

What sets our approach apart from others is that we consider value creation to be an exercise in active learning. Coming up with a novel product or service is not simply a matter of waiting for inspiration to strike but a process of using proven practices from the education sciences to gain insights and improve fast.

Active learning depends on engagement. Students become master architects, for example, not just by reading textbooks, listening to lectures, or watching other architects but by constantly working on and revising actual projects. Through that activity, they synthesize the theory they're

IDEA IN BRIEF

THE PROBLEM

Innovation in the U.S. is highly inefficient. Despite substantial investment in entrepreneurship—by the government, universities, and the private sector—the per capita rate of job creation from new companies has declined for decades.

WHY IT HAPPENS

At its heart, creating value is an exercise in active learning. Unless your process reflects that, your company will probably fail to systematically develop innovations that matter.

THE SOLUTION

The author's framework involves designing an "NABC value proposition" that spells out how your offering addresses customers' ***needs*** *with a compelling* ***approach*** *while delivering superior* ***benefits relative to costs*** *and reliably outdoing the* ***competition****. The methodology works because it's based on proven practices from the education sciences.*

ABOUT THE ART

Matthias Schaller creates indirect portraits of famous painters by photographing the palettes they used. He has photographed more than 200 palettes from 86 artists, fascinated by what they reveal about each individual's creative process.

Gino Severini

Because value creation is a highly collaborative, interdisciplinary activity, no individual will have all the necessary knowledge, relevant mental models, or insights.

taught, the techniques they see others using, and their own ability to manage the design process.

People who try to learn purely through observation and theory miss a great deal and forget even more. That's particularly true for anyone seeking to create value in business. Innovation occurs in a complex, dynamic environment; those who succeed do so because they manage to find the right signals in a sea of noise. To create efficiently and effectively in that context, people must follow a structured process that includes five basic elements of active learning:

1 **Iteration with real-time feedback.** In creative endeavors, repetition is central to learning. Serious piano students, for example, continually practice complex manual maneuvers and experiment with tempo and expression. Those activities are most effective when accompanied by real-time feedback from an expert who can reframe problems and provide potential solutions. Developing a new business idea is, of course, very different from learning to play the piano. The inputs are undefined and may come from a range of sources. So instead of a master-apprentice relationship, the process involves an innovator who keeps refining the idea and seeking feedback widely: from experts, peers, partners, competitors, and, most importantly, customers. Effective feedback initially focuses on arriving at one or two key insights into customer needs and possible solutions.

2 **Concise mental models.** Psychologists assert that all of us construct "mental models"—frameworks carried in our minds to make sense of our experiences and inform our decisions. In active learning, we use these models to identify the beliefs, insights, and assumptions upon which we build hypotheses for what works. We can then test our hypotheses against collected evidence and, if warranted, revise them to develop improved models.

It's critical that the mental models that guide the initial inquiry respect the limitations of the people using them. Research shows that most of us retain only seven items, on average, in our short-term memory. What's more, we can think about only three or four items at once. If innovators use mental models that are too long or too complicated (as many are), they will not easily make sense of the evidence or rapidly learn their way to better hypotheses. But if mental models are concise, they can, over time, become intrinsic knowledge to be tapped almost automatically.

3 **Multiple learning styles.** Active learning involves applying a variety of approaches to presenting and experimenting with ideas. Using images, simulations, and prototypes, for example, can bring ideas to life, highlight different aspects of a problem, and challenge people's thinking about possible solutions. Storytelling is effective because it can create the context for a mental model: Research shows that stories help people remember information and revise their beliefs, assumptions, and theories.

4 **Teamwork.** Working in teams increases engagement, learning, and motivation. Research suggests that the optimal size for a business team is about five people. That number allows for a diversity of perspectives and skills, is small enough to prevent the group from subdividing, and reduces communication costs and the risks of miscommunication. Because value creation is a highly collaborative, interdisciplinary activity, no individual will have all the necessary knowledge, relevant mental models, or insights. This means that each person on the team must bring the distinct competencies and experiences required for his or her tasks. The goal is to assemble teams whose members have a shared vision but complementary skills and varied viewpoints.

5 **Frequent comparison.** Comparison is how we learn our preferences and decide most things, whether we're buying a new car or choosing what to eat. And research shows that direct and rapid comparison of two similar objects greatly amplifies small differences. Suppose you need new eyeglasses. If you randomly try out different pairs, it may take a while to find one that helps you see better. So instead you get an exam in which you look into a machine that displays lenses of different strengths. Your doctor rapidly switches the lens in front of each eye, asking, "Which is better, this or the previous one?" Having you quickly compare lenses with subtle distinctions enables the doctor to swiftly zero in on the right prescription.

THE FRAMEWORK

An NABC Value Proposition

Systematic success is achieved when all the building blocks of active learning are brought together in a complete value-creation system. Our approach focuses first on crafting a risk-mitigated value proposition for the offering you hope to bring to market. But how can you tell if you have a good proposition?

I once held a workshop for one of the world's largest companies. The 30 participants were responsible for six initiatives, which they considered to be the firm's most important ones. I started by asking them to write on sticky notes the company's definitions for *innovation, customer value,* and *value proposition.* After they put all their notes up on a wall, what was obvious was the lack of shared definitions for the most basic concepts of value creation—a problem that was preventing everyone from being fully effective.

I then gave the teams this instruction: "Write out your initiative's value proposition on a flip chart. Tell us the customer needs, your approach for the offering, its benefits relative to its costs, and how it compares to the competition." After half an hour, each team took two minutes to share its statement with the whole group. None was quantitative or convincing, and the teams went back to refine their presentations further. After several iterations, many of the teams found themselves questioning the merits of their initiatives. Some participants were visibly dismayed to realize that they'd been working on things that were interesting to them but of little importance to the company.

This is not unusual. My partners and I have held workshops with more than 500 teams from major companies, universities, national laboratories, and government agencies. None has had shared language for the core concepts of innovation, and none has initially been able to address what we regard as the basic components of a value proposition. After we give people a framework, they typically conclude that less than a fourth of their existing projects, if completed, would provide significant value for their enterprises.

Our framework is anchored in a fundamental, concise model of what a value proposition should be. We call it the NABC value proposition, and it's described at length in my book with William Wilmot, *Innovation: The Five Disciplines for Creating What Customers Want.*

An NABC value proposition covers four topics:

- **Need:** The offering should fill a significant gap in the market.
- **Approach:** The offering should meet customers' needs in a unique, compelling, and defensible way and present an attractive business model for investors.
- **Benefits relative to costs:** The offering should provide obviously superior value for customers.
- **Competition:** Customers should find the offering consistently more appealing than the alternatives.

The innovator's first task is to draft a value proposition that addresses all four elements. If one is missing, the proposition is incomplete and unlikely to support value creation. The elements are interdependent, which means that altering any one of them will affect some or all of the others. For example, if the customers' needs change, so will the benefits relative to costs, the competition, and likely the approach.

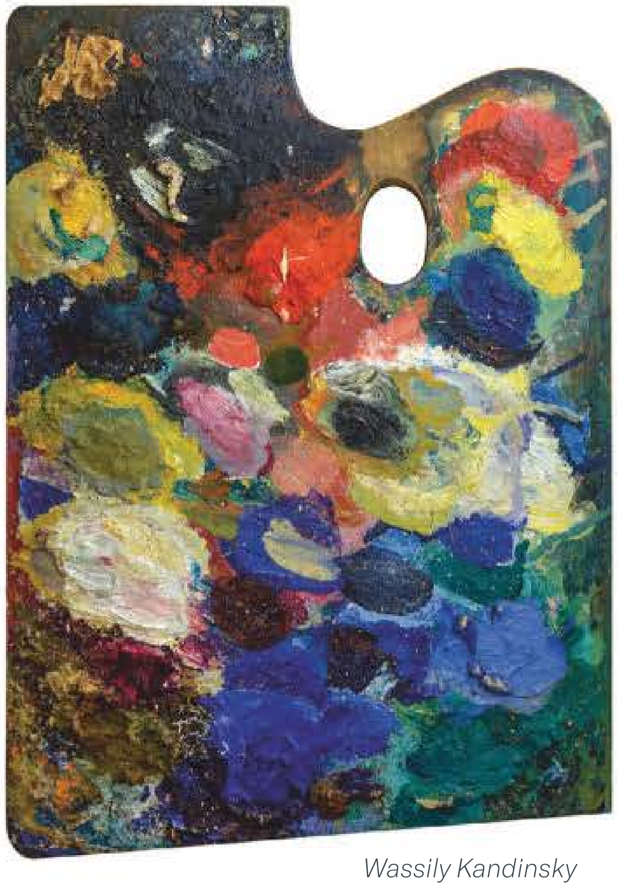
The conciseness of the NABC framework is part of its power. When people use it to evaluate a proposition, they need to think about only four elements. In contrast, overly complex frameworks violate core active-learning principles: The Heilmeier Catechism, for example, poses 11 questions, and the Business Model Canvas has nine sections, each with multiple questions.

At SRI we used the NABC model in defining the value proposition for Siri, which we originally conceived as a tool to help with travel arrangements. After it was spun out into a company that was acquired by Steve Jobs, Siri became a general-purpose assistant, but here's a short version of what we told potential investors early on:

- **Need:** Busy professionals need assistants available 24 hours a day to make travel plans and reservations. Hunt-and-peck internet browsing and keyword searches are difficult, time-consuming, and ineffective in gathering information and completing transactions. Each wrong click drops out 20% of offerings that might meet searchers' needs. Access to web services through mobile devices is a multibillion-dollar opportunity, growing at 35% a year, that is gated by the pain of the user experience.
- **Approach:** Siri responds to spoken English on smartphones, finding information and services and then performing tasks such as "Tell me the status of United flight 242." The business model is collecting reference fees from service providers. A full commercial offering will be built within 12 months. We have an outstanding team of top-notch researchers and a proven CEO.
- **Benefits/costs:** Siri is a fundamental breakthrough in the mobile-phone experience. Just ask, and Siri, your mobile assistant, will take care of it. Our app is free to users and

Salvador Dalí

Pablo Picasso



Wassily Kandinsky

enables them to find basic services rapidly. Service providers get additional customers for a referral fee of $3 to $30.

- **Competition:** Siri is the world's first computer personal assistant with a scalable business model. The app completes each search query twice as quickly as Google or Bing can. There are strong network effects, and our AI technology learns from users, which increases accuracy over time. Our intellectual property position is strong too; it includes 20 patents developed with $50 million of SRI R&D funding.

People are prone to making three major mistakes in formulating value propositions. First, most people fail to pay adequate attention to their customers' needs, which should be the foundation of the value proposition. Instead they fall in love with their idea, which means they focus almost exclusively on their approach. Over 95% of the innovation pitches I see are all about approach—a sign that the team has yet to figure out what really matters.

If teams avoid this trap and make an effort to look seriously at needs, they typically make a second mistake: overrelying on what customers say they're seeking, rather than identifying the real need. Consider the first iPhone. Apple's surveys at the time suggested that people wanted a better keyboard. What they actually wanted was more convenience and ease of use, and that is what the iPhone's revolutionary touchscreen delivered. Customers can ask only for what they know, and they rarely know what is possible.

The third major mistake is related to the other two: It involves spending too much money on an ill-defined approach. If the value proposition is not well-defined, building a minimally viable product wastes time and money. At the start, the smallest possible team should be assembled to address the major risks in the value proposition. Until those risks are mitigated, building the offering is almost always a costly error.

When an NABC proposition is successful, it is usually because the people formulating it reframe the problem and focus on one or two big ideas that offer potential solutions. Today we're all used to seeing upside-down ketchup bottles, but initially that design was startling. Bottles traditionally had narrow necks and stood upright to avoid messy leaks, but you had to tip the bottle and pound the bottom to get ketchup out, and you often wound up with more on your plate than you wanted. The solution was obvious once inventor Paul Brown realized that the challenge was not to make a standard bottle that dispensed ketchup better but to make an upside-down bottle that didn't leak.

THE PEOPLE

Champions and Teams

Value creation begins when someone has an insight about how to solve an unmet need and is motivated to turn that insight into a product or service. I call these people *champions* because the term captures the spirit of what is required. Anyone at any level of the organization can act as a champion; no particular title or position is necessary. Champions are passionate about their initiatives and persevere. They

Frida Kahlo

Claude Monet

Piet Mondrian

self-select. You cannot direct people to be value creators; their drive comes from within.

At SRI my first question when someone came to see me with an idea was, “Will you be the champion?” If they were new, they might ask what that meant. I would explain: “Champions identify important opportunities, drive the value proposition’s development, learn necessary value-creation skills, build the team, and exemplify positive human values. If you agree to this, let’s get started.” My fundamental rule remains the same: No champion, no project—no exceptions.

Once we have an idea and a champion, I ask that person to immediately write down the NABC value proposition and to quantify it instead of using vague terms like *bigger, better, faster,* or *cheaper.* If the champion is unsure about something, my advice is “Put down your best estimate.” It will be wrong—that’s always the case at the start—but this first step helps clarify the idea, the core challenges, and the skills to look for when you’re building a team.

I then ask the champion to find an “iteration buddy” to drive progress and provide emotional support. My partner for developing HDTV was Glenn Reitmeier. We iterated our value proposition hundreds of times over several years before we identified the key insights that led to the solution.

As the value proposition develops, the champion will involve other colleagues, reaching out to people with the expertise to test the value proposition’s assumptions and remove its significant risks. A team will often start with a person with business skills, another with technical expertise, and others who assist part-time with market analysis, technical issues, and operations. The first goal is to minimize risks, not create the product.

THE PROCESS

Value Creation Forums

Value creation forums are recurring meetings where three to six teams—each with up to five members—present value propositions for their initiatives and obtain input from the other participants. A typical forum will bring together 10 to 25 people, with outside experts and partners invited as needed to help participants identify and understand the market, the competition, and the range of potential solutions.

At SRI we held separate forums for different aspects of our enterprise—sustaining the core technical-services business, making strategic investments, and creating licenses and new ventures. In all cases we applied the same overall design: A facilitator organizes and moderates the forums, which take place in person or virtually over the web for one to three hours every two to six weeks, depending on the business objectives. Teams sign up to participate and start by attending a two-day workshop to learn the fundamentals of value creation, with the facilitator coaching them on roles and expectations.

Once per forum, someone from each team makes an NABC presentation, describing the team’s value proposition in 10 minutes or less. Afterward, the facilitator randomly calls on individuals to answer these questions:

- What was convincing and should be saved?

Vincent van Gogh

- What might be improved, and how?
- If you were a potential customer, would you buy the offering? If not, what would make you change your mind?
- If you were an investor, would you invest? If not, what would change your mind?

The facilitator then asks all participants for any other observations. Finally, someone is asked to evaluate the quality of the feedback. While all this discussion takes place, the presenter stands and listens silently, as a teammate takes notes for review after the meeting. The reason is simple: Presenters may be tempted to defend their presentations rather than listen impartially to the comments, and the meeting may get bogged down in adversarial debate. Thinking about and responding to feedback is work for teams to do later.

The forum process makes comparative learning easy because, as already noted, the NABC model enables participants to compare the different value propositions across just four components. And teams benefit not only from the direct feedback they get but also from seeing what other teams do.

For example, imagine you work for a drone company that's seeking to develop new products. Your team's value proposition identifies a need for a novel drone for bird-watchers and says the overall consumer drone market generates several billion dollars in annual revenue. Other forum participants would probably comment on the lack of specificity about the need and the intended market segment. Although that feedback would be useful, you might remain unsure how to perform better at the next meeting.

But suppose another team says this when it presents: "There are 20 million active bird-watchers in America who spend almost $30 billion a year on equipment. Of that total, 1% are hardcore birders who buy the latest equipment and want to capture close-up images and videos of their experiences. The top 5% of spenders in that group of enthusiasts represent a potential market of $15 million a year for ultraquiet, camouflaged, bird-watching drones." That description of an unmet need, with its additional specificity about potential customers, makes the issues to be addressed more evident. It also sets the bar for other teams' presentations at the next forum.

This is comparative learning at work. When people repeat this process eight or more times in a two-day workshop and then participate in recurring value-creation forums, they see dramatic progress.

A good forum needs a good facilitator to manage the schedule and activities, help out when teams get stumped, and add new ideas and clarifications as appropriate. Facilitators are not there to give lectures; their job is to help the teams understand and apply the concepts, reframe issues, and get feedback from their teammates. At SRI we usually put senior staff or executives in that role, choosing people with proven track records at innovation and training them in our methodology.

Picking Winners

SRI projects went forward if they showed the potential to create significant value—typically a market valuation of $100 million or more for a new venture. That magnitude was necessary to attract top talent, gain the interest of knowledgeable investors, and provide a meaningful financial return. If SRI's criteria were not met, the project was either abandoned, redirected toward becoming a licensed technology, or rolled into another R&D initiative.

At any one time, our venture portfolio consisted of about a dozen projects at various stages of development, with several commercialized each year. We initially made incremental and modest investments, ranging from tens of thousands to hundreds of thousands of dollars, and focused on establishing the validity of the value proposition. Mid-level management funded the development work at first and then referred promising projects up the organization to gain more support. After an incubation period of up to five years, we would identify an experienced entrepreneur (usually from outside the firm) and assemble a world-class team to take the venture to market.

INNOVATION IN THE United States is highly inefficient. The per capita rate of job creation from new companies has declined for decades, and only 3% of patents are ever commercialized. Most university tech-transfer and start-up incubators lose money. Venture capitalists look at more than 100 deals to invest in one, and typically less than one in 10 delivers a significant return. Most venture capital firms in fact lose money; 5% earn 95% of the returns. All this despite the efforts of some 220 university entrepreneurial programs, 6,000 professors and instructors teaching entrepreneurship, 1,400 venture incubators, and billions of dollars a year in government investments.

We must do better. My experience with SRI and other organizations suggests that basing the value creation process on the principles of active learning and using the structured NABC methodology will deliver the improved innovative outcomes our economy needs and deserves.

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Experience

Advice and Inspiration

MANAGING YOURSELF

BE A BETTER ALLY

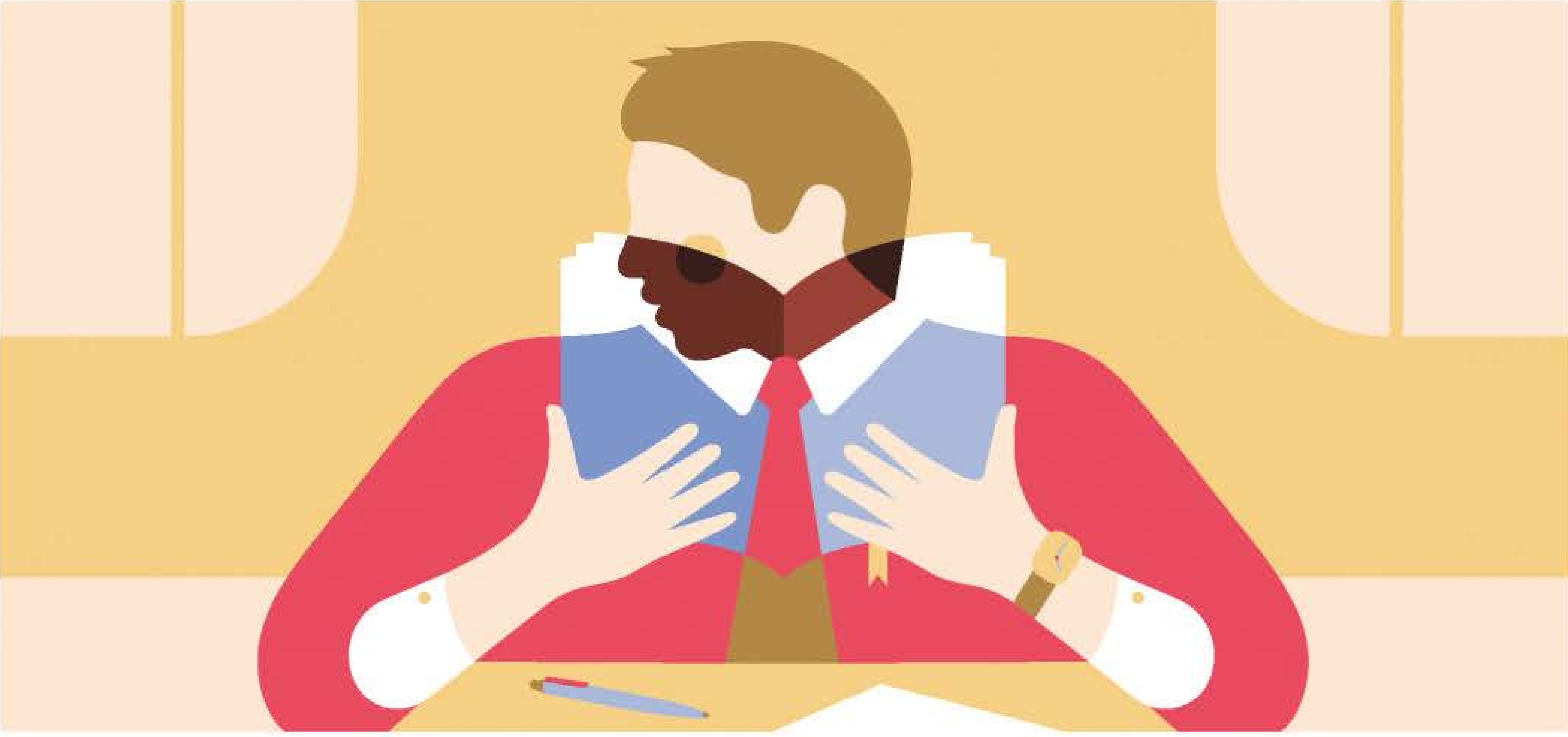
How white men can help their marginalized colleagues advance

by Tsedale M. Melaku, Angie Beeman, David G. Smith, and W. Brad Johnson

IN THE UNITED STATES and many other parts of the world, we're finally engaging in substantive conversations about a once untouchable issue: white male privilege. The #MeToo and Black Lives Matter movements, as well as the systemic inequalities laid bare by the Covid-19 pandemic, have forced people in positions of power—that is, the white men who dominate leadership roles across public and private institutions—to realize that they must step up if there is to be any hope of making organizations more diverse, fair, and inclusive.

Many firms have reacted to recent events—from the revelations of workplace sexual harassment to the spate of brutality against Black Americans—with well-intended press releases and

Illustrations by CECILIA CASTELLI



statements reaffirming commitments to social justice. Some have promised to make sizable donations to activist groups, support legal funds, do pro bono work, or create diversity task forces and speaker series. But many of these efforts lack action-oriented plans and targets.

For too long, leaders from majority groups have helped preserve the status quo, which favors them, by relegating diversity, equity, and inclusion (DEI) efforts to human resources instead of using their own power to effect change. This is in some ways understandable: Angie's research shows that many white male leaders deny racism or avoid discussing it because those conversations feel uncomfortable or controversial. They fail to acknowledge their own privilege, insisting that they and their organizations are gender- and color-blind. Very few understand the problem and what steps they can take to be effective allies with marginalized groups.

We view allyship as a *strategic* mechanism used by individuals to become *collaborators, accomplices,* and *coconspirators* who fight injustice and promote equity in the workplace through supportive personal relationships and public acts of sponsorship and advocacy. Allies endeavor to drive systemic improvements to workplace policies, practices, and culture. In a society where customers, employees, and investors increasingly see equity and inclusion as not just a nice-to-have but a must-have, allyship by an organization's senior leaders has become essential. In this article we'll describe evidence-based best practices for becoming an ally, drawing on our decades of work studying how women, people of color, and women of color advance in the workplace. (Note that many people are members of two or more marginalized groups. As other scholars have shown, it's important to acknowledge intersectional identities and how women of color are specifically diminished within these groups.)

While our advice is addressed largely to white men in the United States, we believe it can be used by members of any privileged group who want to create inclusive organizations. Our hope is that the growing attention to systemic U.S. racism and sexism will lead to a global movement toward workplace equality.

Change starts with individual leaders' taking responsibility for their own attitudes and behaviors. There are a number of ways to do this.

Educate yourself. Do your homework. It can be tempting to simply ask women, people of color, and women of color about their experiences with inequality and injustice. But that unfairly burdens them with emotional and cognitive labor. An ally takes the time to read, listen, watch, and deepen understanding first. White leaders at U.S. companies, for example, should not only study the country's history of systemic racism and the struggles people of color face but also consider how their own behaviors have perpetuated discrimination.

When you do talk to others about the obstacles they've faced, start by requesting their permission. If it's granted, approach with humility and a learning mindset. Good questions include:

- I'm curious about the things women/people of color/women of color in this organization find most challenging day-to-day—things that I might not notice. Would you feel comfortable sharing some of what you encounter?
- If there was one thing you wish your white male colleagues would do

Women and people of color are often the "only" in the room, a scenario that can spur outsider and impostor feelings.

more of to improve the experience of women/people of color/women of color, what would it be?

- If there was one thing we could stop doing every day, what would it be?
- If you were giving me advice on how to really show up as a colleague to make the workplace fair and welcoming, what would you say?

Recognize that members of an underrepresented group won't all have the same experiences—especially if they're from different cohorts. For example, white women's experiences aren't necessarily similar to those of women of color, who, all our research shows, are particularly marginalized and silenced in organizations. Don't generalize from the stories of one or two colleagues. Talk to many and be attuned to their unique experiences and intersectional identities.

Don't rely too heavily on your own experiences, either. For example, a white male program director at Lockheed Martin had an *aha* moment when he told a Black woman to bring "a little swagger and attitude" to a client pitch. She quickly responded, "I can't do that," and she was right: She couldn't act the way he could as a white man. Allies need that level of awareness.

Finally, pay vigilant attention to how women, people of color, and women of color experience meetings and other gatherings, and stay alert to inequities and disparities. Transform your perspective as a leader. As one male executive in the global development sector reflected, "Once you put on that lens, you can't take it off. The world never looks the same."

Own your privilege. Being an ally requires recognizing the advantages, opportunities, resources, and power you've automatically been accorded as a white man while others have been overtly or subtly denied them. This can be painful because it often means admitting that you haven't entirely earned your success. But it's necessary. It's also important to understand that privilege is a resource that can be deployed for good.

As a white male law firm executive explained to David and Brad, "Think about the last time you made a career decision. As a man, you were probably never asked, 'How does this decision affect your wife or kids?' or 'Why are you focusing on your career instead of your family?' That would seem like a weird conversation even in the 21st century. Not so much for women."

White men are also far less likely to have to code-switch—adjust their style of speech, appearance, and behavior to fit into a particular culture and increase their chances of being hired, accepted, or promoted. This is extra work that takes an emotional toll. As one Black professional told Courtney McCluney in her research on this topic, "I find myself constantly trying to be aware of my mannerisms to ensure that I don't portray myself or the people I represent in a negative light."

Accept feedback. Deliberately seek feedback from marginalized groups, but recognize the power dynamics at play. If women of color, for example, are asked to give advice to white male colleagues when they themselves are not in secure positions (partner, tenured professor, and so on), the request may inadvertently add invisible labor and stress—what Tsedale calls an *inclusion tax.*

You need to establish trusting relationships with people from marginalized groups (especially those disadvantaged in multiple ways) who will give you unvarnished feedback about your workplace conduct. Receive their comments as a gift. Even when you're surprised or dismayed by what others tell you, show that you value candor. Be thoughtful and sincere. Appropriate responses include:

- I recognize I have work to do.
- How can I make this right?
- I believe you.

Become a confidant. Tsedale's research shows that Black women who progressed at their law firms typically had trusting relationships with certain white male partners who took a genuine interest in their careers. So let women, people of color, and women of color know that they can confide in you about the slights, dismissals, and aggressions so often encountered in workplaces.

Make yourself available, listen generously, and try to empathize with and validate their experiences. One woman of color, the president of a national trade union, explained how her white male ally did this: "What I most appreciated about him was that he always made time for me and encouraged me to stop by and see him despite how busy he was."

Bring diversity to the table. Women and people of color—and particularly Black women—are often the "only" in the room, a scenario that can spur outsider and impostor feelings. Allies combat this by inviting more colleagues from marginalized groups to gatherings. When meetings are set up, they ask, "Whose perspective are we missing?" When they notice they're in a room in

> When you witness discrimination, don't approach the victim later to offer sympathy. Give him or her your support in the moment.

which everyone looks like them, they say, "Should we ask Angie or Tsedale to join? Are we including their work and expertise?"

Especially if you have positional authority or status, you should use a "pull" approach: In meetings, ask very specific questions of people whose contributions and expertise are often overlooked or devalued, so that alpha white men and their bravado can't hog the floor. It also helps to "decenter" yourself. In societies where racism and sexism abound, the attention in a space will often naturally go to white men. Allies learn to step out of the spotlight by, for example, asking a woman of color to lead a meeting or recommending that a person from an underrepresented group take their place in a high-visibility position or event.

See something, say something. This is the more-taxing ally work. Vigilantly monitor your workplace for racist or sexist comments and behavior, and then be clear and decisive in shutting them down. Don't wait for marginalized people to react, as they're often accused of "playing the race or gender card"—a tactic used to silence women, people of color, and women of color specifically. When you witness discrimination, don't approach the victim later to offer sympathy. Give him or her your support in the moment.

Also look out for *gaslighting*—psychological manipulation that creates doubt in victims of sexist or racist aggression, making them question their own memory and sanity. This tactic is designed to invalidate someone's experience. Examples include comments like these: "I'm sure he didn't mean any harm by that. That's just his way." "You might be blowing this out of proportion." "You'll have to learn to be less sensitive." "Can't you take a joke?" "There are so many more important things to focus on right now." If you hear people, whether they are other white men *or* white women, say something along those lines, respond, "As an organization with a commitment to equality and inclusion, we should take our colleague's concerns seriously. We should deal with this immediately rather than wait for a more convenient time."

Intervene whether or not women, people of color, or women of color are in the room. Explain that *you* are offended and that such comments or actions aren't acceptable or representative of your organization. Frame the confrontation as a learning or growth opportunity for the person and the team. Assume that your response might be questioned and have your arguments for inclusion—research on its personal, team, and organizational benefits—lined up.

Finally, avoid common mistakes made by people who claim to be allies. Some people who declare themselves to be antiracists think that they're absolved of their own biases and prejudices or do it to put themselves on a higher moral ground. Being an ally is not about making yourself look good or feel better.

Sponsor marginalized coworkers. Allies seek out talented protégés from entirely different racial and cultural backgrounds and become their vocal fans. They get to know these colleagues' strengths and weaknesses, help them develop as leaders, challenge and encourage them, and tout their abilities and achievements whenever new projects, stretch assignments, or promotions are discussed. They nominate protégés on the basis of their potential, without expecting them to prove they can do a job in advance. This usually requires putting some social capital on the line—a risk sponsors need to get more comfortable with. Finally, allies introduce protégés to key players in their own professional networks to open up an even broader set of opportunities for them.

In Tsedale's research, sponsorship was shown to be critical to Black women's access to significant training, development, and networking opportunities and advancement. Unfortunately, many white men picked protégés who looked just like them. As Fotoula, a fifth-year law associate without a sponsor, noted, "I think where [the lack of mentorship] really played a role was in not having… people to say, 'Make sure you're at the event. Make sure you speak up and say this. Make sure that you ask about this,' or 'You know what? I heard about a deal that's happening at such and such. I'm going to make sure this partner knows that you're interested.' I'm not saying I was entitled to it," she continued, "but…I know that would have made a difference."

Insist on diverse candidates. A well-established cause of pay gaps, low retention, and stalled career progression for women, people of color, and especially women of color is bias and discrimination in hiring, professional development, and promotions. White male allies can help colleagues from marginalized groups overcome this hurdle.

If you're hiring, strengthen your own processes. Insist on open job listings and targeted recruiting to avoid an overreliance on referrals, which have been shown to perpetuate workforce homogeneity. Make sure candidate pools are diverse—with at least one person and ideally many people from marginalized groups. Finally, enforce fair application reviews and committee deliberations, watching for and calling out red-flag comments such as "His résumé is really impressive," "It sounds like she's a busy mom," "I'd like to see her prove she can handle this responsibility before we promote her," and "I'm not sure she's a good fit"—language often used to exclude women of color from opportunities. You can respond with something as simple as "Would we be having this conversation about a white man?" You can also get others to hold you accountable—for example, by involving women and people of color in the hiring process or assigning another team member to serve as a "bias interrupter."

Build a community of allies. Allies can broaden their impact by joining or forming groups of colleagues interested in fighting racism and gender inequality. Look for like-minded people in all parts of your organization, including other units, satellite and remote locations, and employee resource groups, and then grow your base. Focus your advocacy on evidence-based tactics that will drive small wins within your sphere of influence, and create opportunities to interact through networking, mentoring, and professional development events.

If you're a senior leader, you should push for organizational change. No matter where your organization is on its DEI journey, you can champion and lend time and energy to designing and implementing antibias, recruitment, and leadership development initiatives that work.

Iris Bohnet has found that DEI efforts are most successful when leaders clarify their purpose and goals and are transparent about plans and progress. According to Andrew Behar, the CEO of As You Sow, companies that do this will attract and retain the best and brightest employees and reduce risk to shareholders. And we have observed that effective senior allies not only set an example but also outline expectations for everyone's behavior and link outcomes to responsibilities and rewards.

The time to do this work is now. It is because of the vocal and visible protests of women, people of color, and especially women of color that we are even able to write this article. But members of underrepresented groups need powerful white male allies too. We all have an opportunity—and a responsibility—to support change on our own teams, which will ultimately benefit our organizations and society.

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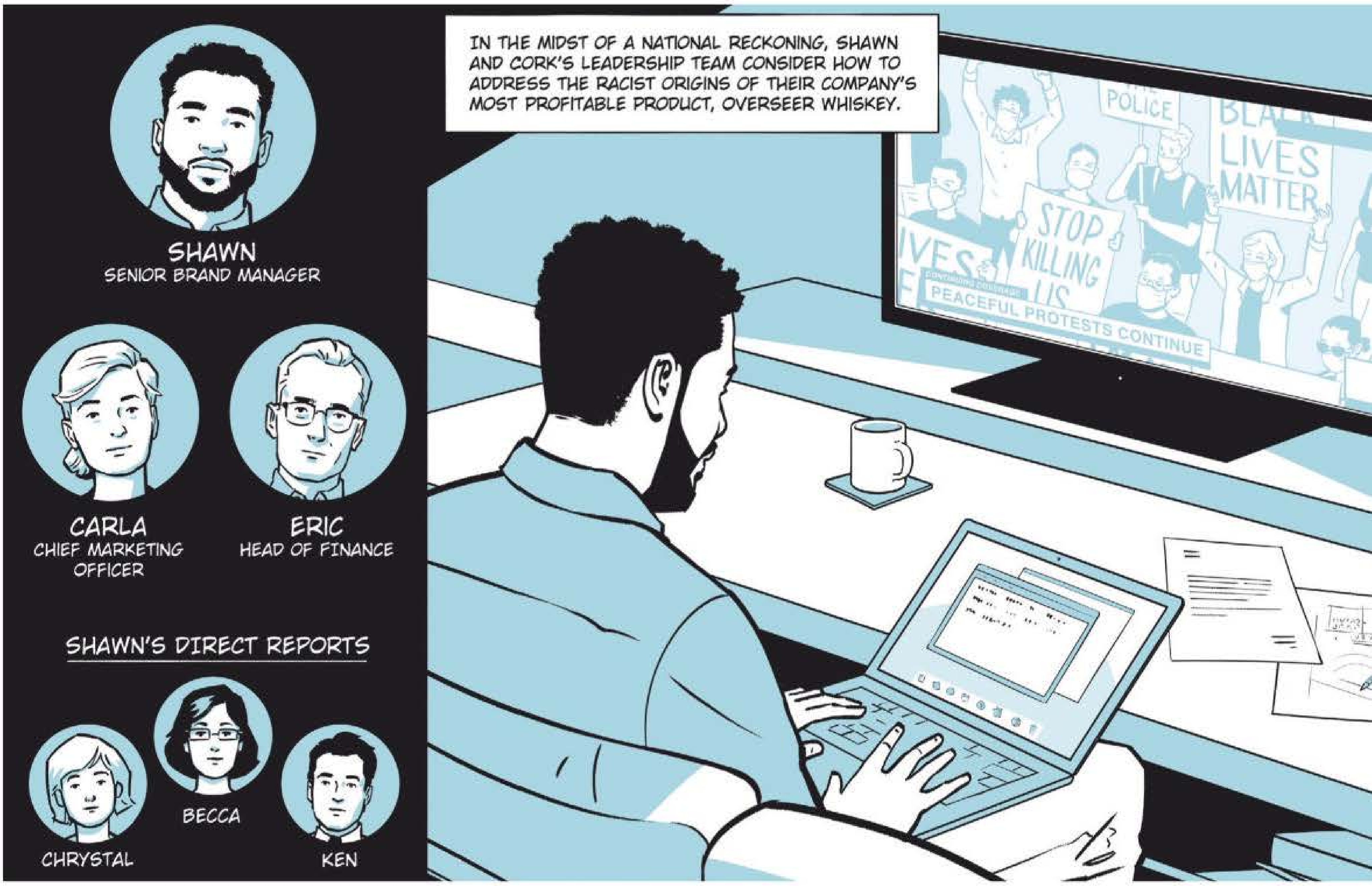

CASE STUDY
When Your Brand Is Racist

by Joseph C. Miller, Michael A. Stanko, and Mariam D. Diallo

HBR's fictionalized case studies present problems faced by leaders in real companies and offer solutions from experts. This one is based on the Ivey Business School Case Study "Reckoning with Jemima: Can the Brand Be Remade for Good?" by Joseph C. Miller, Michael A. Stanko, and Mariam D. Diallo.

SHAWN LEWIS KEPT one eye on his laptop while footage of the protests in support of Black Lives Matter flashed across the TV. His family was asleep, but he was waiting for a press release draft from his colleague Angela that would go out tomorrow. Angela Howell was the head of PR at Cork Beverages, a brewing and distilling company based in Nashville, where Shawn was a senior brand manager. The release concerned the brand he was responsible for: Overseer Whiskey.

When Slack finally dinged, he opened the attached document:

We recognize that Overseer Whiskey's history and name are closely tied to our country's history of racism. While we have worked over the years to update the brand to be respectful of all races, those changes have not been enough. We are evaluating further measures and will announce our plans soon. Cork Beverages believes in diversity, equity, and inclusion and wants our product portfolio to reflect that commitment. In addition, we are donating $3 million to organizations that support and engage the Black community.[1]

Angela followed up a few minutes later. "Any changes?"

He wrote back: "I'm still worried it's vague. Is it enough to say that we're evaluating changes?"

"Jim doesn't want to back the company into a corner," she

Illustrations by **JORI BOLTON**

replied. Cork's CEO, Jim Worth, was known for hedging his bets on strategic decisions. "But I agree that we need to get out in front of this thing. We don't want to come off as reactive."

Shawn wondered if they were already too late. Over the past several weeks, many brands had been called out for their racist product names or histories. He was getting hourly alerts from Google indicating that searches for "Overseer" were increasing. It felt like a matter of time before a tweet pointing out the brand's troubling past went viral.[2]

Samuel Vernon, a distiller and plantation owner in Tennessee, had started making the whiskey in the early 19th century. According to brand lore, he named it Overseer after an enslaved man whom he promoted to foreman of his cornfield, a highly unconventional act at the time. Throughout the 1800s and well into the 1900s, ads for the brand depicted a smiling Black man in field clothes and a broad hat, carrying a long stick. When Cork bought the whiskey brand, in the 1950s, it redesigned the label to feature Vernon's home instead.

Over the past 40 years, as Overseer became a household name across the United States, Cork had downplayed the image of the plantation house, making it smaller on each version of the label. The company avoided advertising for the product, relying more on reputation and word of mouth. But Overseer remained Cork's best seller, and the senior team didn't want to tinker too much with a winning brand.

Shawn had taken over as brand manager for Overseer three years earlier. He was well aware that putting a Black man in charge of a brand with racist origins worked in Cork's favor, especially in an industry not known for its diversity. But whatever the motivation for his promotion, he wasn't going to pass up the opportunity to lead the company's crown jewel. He felt pressure to get it right, not just for Cork, but for himself.

Rereading the press release, he was proud that he'd persuaded the board to make a meaningful contribution to Black causes.[3]

Angela pinged him again. "I just heard from Carla that she's good with the press release as is. Do I have your sign-off?"

He trusted Carla Tasha, his boss and Cork's chief marketing officer. If she'd signed off, he could too. He knew she'd have his back if things went sideways.

"Yup, all good," he typed. As he hit send, he thought to himself, *Now my work really begins. This will be the biggest challenge of my career.*

THE OPTIONS ON THE TABLE

Shawn's first Zoom call the next morning was with Carla and Eric Reid, the head of finance for Cork's spirits division.

"Let's start with a review of our options," Carla said.

The idea of altering the Overseer brand had been on the table for some time; in fact, Cork had conducted extensive customer research to gauge perceptions of the brand and potential reactions to changes.[4] Shawn and his team had been strong advocates for dealing with the brand's racist origins even before George Floyd was brutally killed by the police and the national dialogue around racism exploded. They'd hoped to execute a plan without fanfare, but the board had been reluctant to make a move, fearing a revenue hit for Cork's best-selling brand. Now their hand was being forced.

"If we really wanted to make a clean break," Shawn said, "we'd kill the Overseer line. I realize it's highly unlikely, but I have to mention it."

"Kill our most profitable brand?" Eric asked with eyebrows raised. "No one's going to take that seriously."

Case Study Classroom Notes

1. *In an August survey by Pew Research, 52% of U.S. adults said it was important that companies make public statements about political or social issues, while 48% said it wasn't important.*

2. *What are the advantages of making changes to a potentially offensive brand proactively rather than doing so in response to customer complaints?*

3. *Do donations make an impact, or are they a form of "virtue signaling," whereby a firm says it's taking action without making real change?*

4. *What other stakeholders should Cork involve in this process?*

5. *Does the fact that the term "overseer" has several meanings make using it in this way OK?*

6. *Many firms successfully rebrand by using a shorter name or acronym. For example, LG started out as Lucky Goldstar.*

7. *Researchers liken rebranding to Darwin's "evolve or die" theory. Do some brands reach a point where they can no longer adapt to changes in their environment?*

"I agree," said Carla, "though it would make a strong statement."

"It would also piss off our customers," Eric pointed out, "especially in the Southeast and the Midwest. We know from our market research that they have no problem with the name or the history. Only 42% of our whiskey drinkers even know what an overseer is."[5]

"True, our customer data shows that most people don't associate the brand with slavery," Shawn said. "But if we want to do more than avoid a potential PR crisis and put Cork out there as a leader in the fight against racism, getting rid of Overseer will do that. But it's probably a non-starter, so let's move on."

As Shawn discussed developing a new brand around the same taste profile, he heard Carla sigh. Having been in marketing her entire career, she had numerous war stories of failed rebranding efforts. She'd never been in favor of a complete rebranding, and given the price tag, neither had Eric or his boss, Cork's CFO.

"Then we've got the option of tweaking the brand," Shawn said. "We change the name but not so much that we lose brand recognition. In customer testing, the names 'Seer' and 'Chattanooga Seer' scored the best."[6]

Shawn shared his screen and walked them through the key takeaways from the research.

"This is helpful," Carla said. "And what about rebranding as 'Element'?" Another option was to fold Overseer into Cork's second-most popular brand, Element Gin, and call it Element Whiskey.

"That's still on the table," Shawn said.

"You'll also present a 'no changes' scenario to the board?" Eric asked. "You know they'll bring it up." Overseer had dominated whiskey sales in every region of the country for the past two decades, and thanks to limited discounting and minimal advertising, it was very profitable. "Why would we throw that away?" was a constant refrain from a few board members. Like Eric, they pointed out that most customers didn't seem to know or care about the link to slavery.

"I know our research was done before George Floyd's death," Eric said, "but so far there hasn't been a public outcry, and sales are actually up—pandemic drinking, I guess."

Shawn knew that Eric liked to play devil's advocate. "You really think doing nothing is an option after that press release?"[7]

Eric nodded. "I do. Look, I'm not advocating for that, but you should be ready for pushback from the board. Nobody in that room is ready to kill the cash cow."

"That's been true for a long time, but the calculus has

changed," Carla said.[8] "I bet they'll be very interested in what you have to say, Shawn." Her implication was clear. Because he was Black, the board might listen more seriously to his recommendation on how to handle the situation. "Besides, you know the brand and our consumers better than anyone."

THE RIGHT THING

The next day, Shawn and his three direct reports met on Zoom to go over the board presentation. He began by asking where each of them stood on the options before they dove into the data.

"I'll go last," he said.

Chrystal laughed. "You always say that!" It was true; Shawn had learned from a mentor that when you're the most powerful person in the room, the quickest way to sway a conversation is to share your opinion first.

Becca jumped in. "I've always been firmly in the Element camp. It won't be an easy transition, but if the halo effect is real, we could recoup the cost of rebranding and return to current sales levels within a year, if not the same level of profitability. Cork has built equity in the Element brand—now we need to leverage it."

"I think the projections from finance on the Element option are overly optimistic," Chrystal said. "Remember the focus groups?"

Shawn thought back to how frustrating those discussions had been. No matter how carefully his team explained that Element Whiskey would be the exact same recipe made in the same way in the same distillery, just with a different name and label, the participants refused to believe that it would taste the same. "The other risk is damaging our gin brand by dragging it into the situation," Chrystal added.

"Ken, you're quiet," Shawn said, looking at him on the screen.

"Yeah, let's hear the argument for no changes again," Chrystal teased. Ken always went back to the data: Most customers associated the brand with "authority" and "assertiveness," not antebellum slavery.

But Ken surprised them. "I've actually done a 180 on this," he said. "I'm leaning toward a new brand. It's an expensive undertaking, but if there ever was a time to get senior management and our customers on board, it's now. We need to think about social impact as much as profit here."[9]

"Isn't that what the $3 million donation is for?" Chrystal asked. "Social impact?"

"But is it enough?" Ken asked.

WHO'S POURING?

After dinner that night, Shawn sat down on the couch next to

8. *In the wake of recent protests, companies that have long resisted calls to alter their brands—namely, Aunt Jemima, Mrs. Butterworth's, Uncle Ben's, and Cream of Wheat—have promised to make changes.*

9. *How important is it to make a business case for the change? Should a moral argument suffice?*

his father, Arden, who'd moved in with Shawn's family right after the pandemic started to shut everything down. He was a widower, and no one wanted him to quarantine alone. And as a retired school principal, Arden had been able to help Shawn's children with online classes.

"Dad, you pouring?" Though neither was a big drinker, during the months-long lockdown, they'd begun a nightly ritual of having a snifter of whiskey together.

"Good thing you get this free," Arden said, smiling and holding up the almost empty bottle of Overseer. Shawn smiled back fondly. His dad always supported him. At every milestone—business school graduation, his wedding, his promotion at Cork—Arden had said the same thing: "I respect the choices you've made, Shawn."

He wanted to make his dad proud. As they both sipped quietly, his phone buzzed.

"Duty calls," Arden joked.

It was an email from Carla: "Just got off the phone with Jim. We've got to move fast on this. Things are heating up, and we will want to announce plans soon. How close is your team to making a recommendation?"

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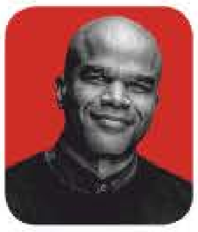
What should Shawn recommend to the board?

THE EXPERTS RESPOND



GEOFF EDWARDS *is an executive creative director at GALE and a cofounder of Saturday Morning.*

Shawn should discontinue the Overseer brand and immediately build a new one from scratch.

While Carla is right that rebranding has a hefty price tag, this is a "pay now or pay later" situation. Consumers are savvy, and many will easily discover Overseer's racist backstory. In particular, Millennials and Gen Z—the fastest-growing customer segments—are often unwilling to associate with brands that conflict with their values. Cork needs to make the investment in rebranding now to avoid losing current and future customers.

A full rejection of Overseer would allow the company to demonstrate its values and commitment to diversity. Yes, Shawn will have to answer to the CEO, the board, and other stakeholders, including the bottlers and distillers, but he can be confident that this courageous move won't hurt the bottom line over the long run. In fact, it'll do the opposite.

Shawn and his team can start by figuring out what the new brand story should be. I'd aim for something with a positive, nothing-to-hide spirit that emphasizes freedom and equality.

The other options seem untenable. Tweaking the name or pulling the product under the Element brand will feel like a smoke screen—as if Cork is trying to hide the fact that the brand was built on the back of an enslaved Black man. Customers will see through that, just as they might question whether the $3 million donation to Black communities is enough.

From the Washington Redskins to Eskimo Pies, many brands are recognizing that reckoning with a problematic past takes a lot more than onetime financial gestures or image tweaks. Bold moves are far more effective. Think of the way Ben & Jerry's denounced white supremacy after George Floyd's killing. There was no doubt in anyone's mind where the company stood; its leaders didn't care if they lost customers because of it. Cork should take a lesson from that book, communicating openly that it was in the wrong and is taking action—before being asked to.

I feel empathy for Shawn. As a Black man leading a brand with a racist history, he's in a difficult position. While I haven't been in exactly the same situation, I've been asked to work for organizations whose values clashed with mine: cigarette companies that targeted inner-city youth and fast-food chains led by founders who held racist views. And I used those opportunities to make clear what I stand for. When you're given a megaphone, do something positive with it.

That's what Shawn needs to do. He can fulfill his commitments to Cork, his family, and society by blowing up the brand and giving it a fresh, aspirational start.

JIM BIRCH *is the general manager at Dixie Brewery, which has committed to changing its name in the fall.*

Overseer's brand needs to be tweaked; that can't even be up for debate.

But I don't see a reason to destroy the brand entirely.

As the CFO suggests, Cork could do nothing, but that would almost certainly limit its whiskey's appeal to an ever-smaller segment of customers as modern societal norms prompt people to avoid products with problematic pasts.

Cork's leaders clearly understand that Overseer has a brand problem, and they've been distancing themselves from its past for decades. Just because 42% of whiskey drinkers don't know that the word "overseer" has connections to slavery isn't a reason to do nothing.

At the same time, Shawn and his team need to remember that people enjoy the whiskey, and they should do what they can to hold on to that positive association. By tweaking the name—perhaps to one of the suggestions that have done well in market testing—they can build on what's working and move away from what's not.

Part of the problem in this case seems to be the internal decision-making process. Carla implies that the board will take Shawn's recommendations more seriously now, which indicates unconscious bias could be at play. The directors should have been open to Shawn's advice all along, since he knows the brand better than anyone else. Why weren't they? Had Cork really been committed to hearing from all employees regardless of race? Had there been a culture of silence where it wasn't OK to suggest a name change? The company's leaders need to address these cultural issues as they consider the brand tweaks.

This case hit close to home, for sure. As I write this, our company, Dixie Brewery, is in the process of retiring its 113-year-old name; we plan to announce a replacement brand in October. We're doing this not because there has been a public outcry or demand for change but because we're increasingly cognizant that the word "Dixie" has been co-opted over the years to mean something other than what our brand represents.

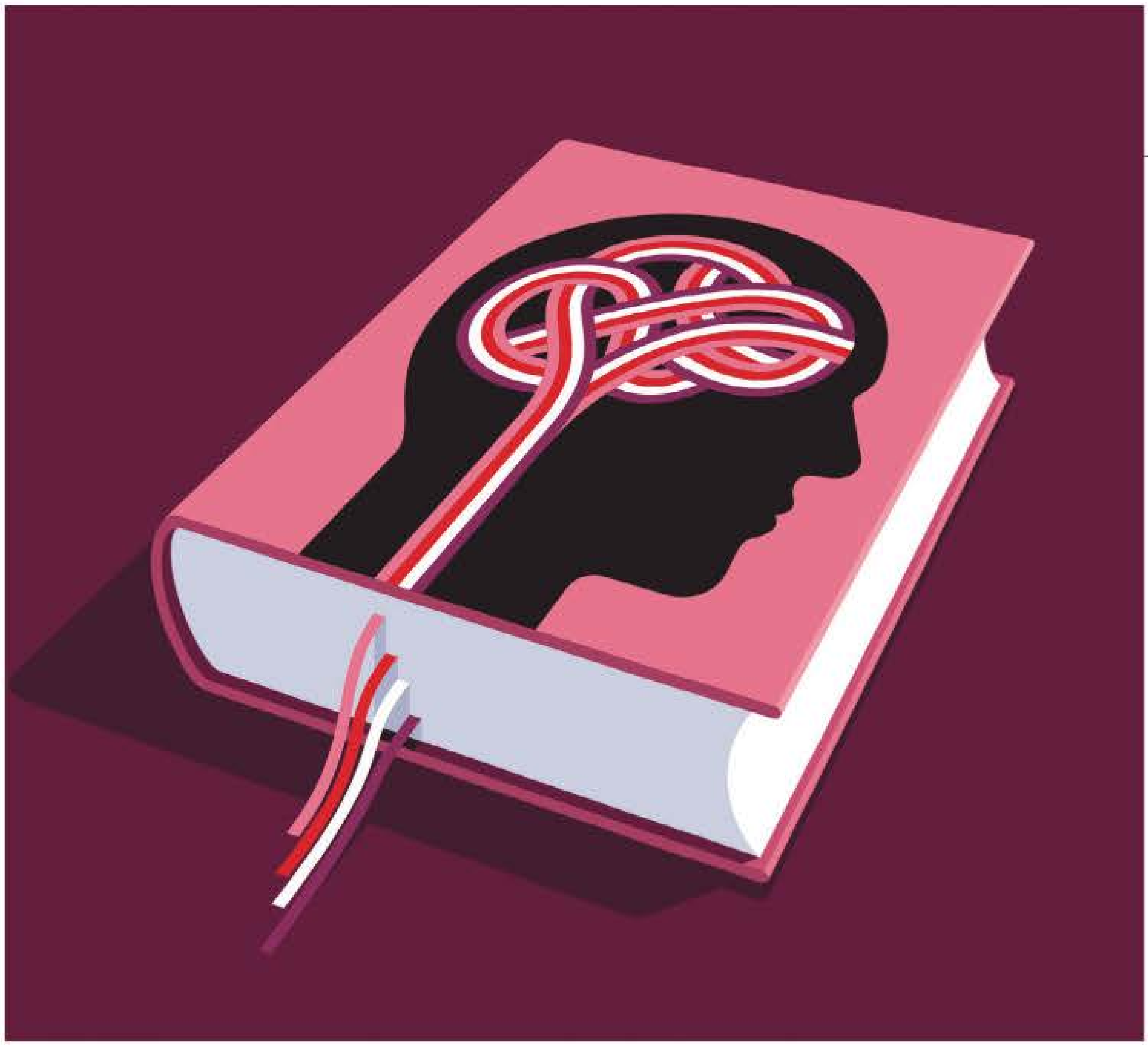
Our brand is "New Orleans in a bottle"; it's a symbol of survival. After Hurricane Katrina, we had to move production out of Louisiana, but this past January we returned home to New Orleans East, and our loyal customers rallied around us. With aspirations to be a national brand, we started reaching out to wholesalers in other states but heard concerns about our name and how it would translate outside the U.S. South.

Like Shawn's market research, ours shows that not everyone believes the Dixie name is offensive. Our friends in the Black community told us that even if they weren't necessarily offended, they couldn't defend the name. And we don't want to either. We want to make a product that brings people together, not one that pulls them apart.

We've engaged local PR firms and are in the process of conducting focus groups with various sets of customers. With their help, we will test product and brand names until we land on one that feels right for us and what we stand for.

This is what Shawn and his team need to do. They already have options that they know resonate with their target customers. They need to lean on the board to finally abandon the status quo. The brand is impaired, and a name change is the only way to save it.

HBR Reprint R2006M
Reprint Case only R2006X
Reprint Commentary only R2006Z



SYNTHESIS

UNARTIFICIAL INTELLIGENCE

A new wave of brain science is upending our understanding of the mind.

by Scott Berinato

ONCE, WHEN SHE WAS maybe three, my daughter Emily was chattering from her car seat about who knows what while I drove who knows where. My mind hasn't retained any of that. What it has held onto, though, is Emily saying, "They're just ideas. You know, like words that come out of the top of your head."

I remember looking in the rear-view mirror and seeing her little hands waving above her messy blond ponytail, which sprouted straight up, presumably near where the words were exiting. I laughed and said, "I know exactly what you mean!"

I think of this story often, not just because it's adorable but also because it reminds me how magical the human brain is. Why, without remembering any detail before or after, can I see that moment as clearly as if it's on Netflix? Why did I know what she meant when I know damn well that words don't come out of tops of heads? Why did I laugh without even thinking? How did a toddler manage to reference a concept from Cartesian dualism—the notion that thoughts can happen outside the body?

We now have answers to—or at least theories on—some of these questions as a new generation of neuroscience writers makes the profound realm of the brain more understandable to the rest of us.

As a professionally trained journalist, I am skeptical of popular science writing—especially when it comes to brain science. For all the responsible applications of this field of study to other domains, such as leadership, people management, and parenting, there's even more "brain porn" out there—endless studies that cite fMRI scans to build pseudo-causal explanations for everything from why money is like cocaine to why people love iPhones in the same way they love their mothers.

Jon Lieff, the neuropsychiatrist and author of the *Searching for the Mind* blog, provides a worthy example of applied neuroscience. While others falsely claimed that you could identify good leaders by looking at blood flow in the brain, he was boldly saying things like, "Current science has no

Illustration by PATRICK GEORGE

explanation for subjective experience. There isn't even an adequate definition of consciousness."

Armed with the latest research, a new crop of writers is following his lead, bringing brain science to the masses in a thoughtful, measured way. Take David Eagleman, head of the Center for Science and Law, an adjunct professor at Stanford, CEO of Neosensory, and author of ***Livewired: The Inside Story of the Ever-Changing Brain.*** He gets the science right and makes it accessible to those of us who'd rather not delve into hemodynamic response functions, completely upending our basic sense of what the brain is in the process. Departing from most popular conceptualizations of brain function such as left and right (so 1990s), fast and slow, and upstairs and downstairs, he tells us:

The brain is like citizens of a country establishing friendships, marriages, neighborhoods, political parties, vendettas, and social networks. Think of the brain as a living community of trillions of intertwining organisms...a cryptic kind of computational material, a living three-dimensional textile that shifts, reacts, and adjusts itself to maximize its efficiency.

The genius of this organ, he says, is its ability to profoundly change, unlike, say, a bicep, which can mostly just grow or shrink. This lovely idea—of our brains not as slaves to structure or impulse but as a community, dynamic and adaptable—is exciting. Eagleman avoids the term "neuroplasticity" (which suggests morphing into a single new pattern, something the brain never does) to instead emphasize constant rewiring and remolding. Such rewiring is happening all the time, with shocking speed, and can cause physiological change. For example, Eagleman notes that violinist Itzhak Perlman has an omega-shaped bump on his brain that you don't (unless you're also a musical maestro). In animals deprived of stimulation, neurons shrink to sad twigs compared with the lush thicket of nerves in animals given enriching environments.

In ***Grasp: The Science Transforming How We Learn,*** authors Sanjay Sarma (head of Open Learning at MIT) and Luke Yoquinto (a science writer) share this optimistic view of the brain and use it to argue for a different approach to learning. Now that neuroscience research is revealing why we "forget" things, for example, we can adjust educational models to make that less likely. Now that we understand just how much brains can change, we can stop focusing on knowledge transfer and instead teach people how to think. Perhaps most important, we can stop labeling some kids as smart and others as slow and give all of them the same chance to grow their neurons into those lush thickets.

"Once you realize how education systems are set up not just to nurture but also to cull," Sarma and Yoquinto write, "you begin to see it everywhere. We winnow in how we test, and we winnow in how we teach." It's hard to square such a system with a brain so adaptable that if you remove half of it, the remaining half will reconfigure itself to compensate and allow a person to live a reasonably normal life. (That really happened.)

Today's brain-focused writers are also adding scientific legitimacy to practices we already suspected were good for us. You won't see the word "neuroscience" anywhere near his Amazon page, but when influencer and podcaster Jay Shetty implores you to ***Think Like a Monk*** to "train your mind for peace and purpose every day," there is evidence to back him. Only a few decades ago his book would have been "new agey." Today research confirms the value of age-old approaches: meditation, mindfulness, prayer, daydreaming—all these things work, and now we know how and why.

As research unlocks ever more knowledge about the brain, new applications will emerge, whether it's discovering how to be more creative or finding ways to manage stress, trauma, and recovery. But that doesn't mean we'll be anywhere close to fully understanding our central nervous system. As the cliché goes, the more we learn, the more we learn how much we don't know. In his new book, ***The Secret Language of Cells,*** Jon Lieff hammers on that theme, defining the brain as not just a wired system but also a "wireless" one in which cells transmit signals to the rest of the body. "The whole body is really one enormous brain circuit," he tells us, with implications for everything from understanding memory and bias to treating depression and cancer.

If that's not mind-bending enough, he adds this: "If the mind is considered to be either determined by the brain, or related to activity of the brain, then the definition of the mind must be enlarged to include the constant communication of all cells throughout the body."

In other words, the mind is the body, and the body is the mind. Let those words come out of the top of your head for a while.

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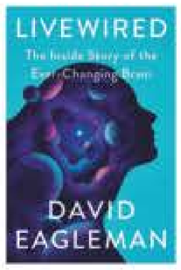
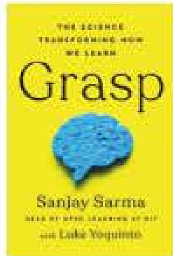
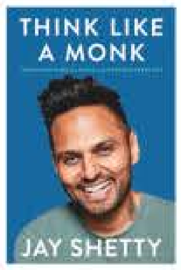


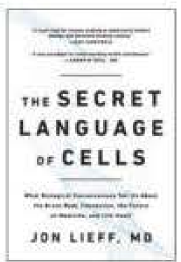
Livewired: The Inside Story of the Ever-Changing Brain
David Eagleman
Pantheon, 2020



Grasp: The Science Transforming How We Learn
Sanjay Sarma and Luke Yoquinto
Doubleday, 2020



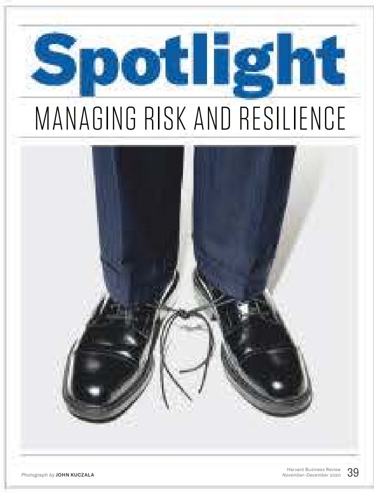
Think Like a Monk
Jay Shetty
Simon & Schuster, 2020



The Secret Language of Cells
Jon Lieff
BenBella Books, 2020

SCOTT BERINATO *is a senior editor at HBR.*

SPOTLIGHT



THE COMPLETE SPOTLIGHT PACKAGE IS AVAILABLE IN A SINGLE REPRINT.
HBR Reprint R2006B

Managing Risk and Resilience

There are ordinary, predictable risks—and then there are black swan events, tsunami risks, and disasters. In this month's Spotlight package, the experts share advice on how to deal with threats that are unexpected and overwhelming. | **page 39**

The Risks You Can't Foresee

Robert S. Kaplan, Herman B. "Dutch" Leonard, and Anette Mikes | page 40

No matter how good their risk management systems are, companies can't plan for everything. Some risks are outside people's realm of experience or so remote no one could have imagined them. Some result from a perfect storm of coinciding breakdowns, and some materialize very rapidly and on an enormous scale. These *novel risks,* as the authors call them, cannot be addressed by following a standard playbook.

This article describes how to detect the emergence of a novel risk (start by looking for anomalies and appointing "chief worry officers") and then how to mobilize resources to mitigate its impact, deploying a critical incident team or empowering local personnel to tackle it.

Building Organizational Resilience

Fernando F. Suarez and Juan S. Montes | page 47

In unstable times the routines organizations use to get work done often break down. When that happens, teams need to shift gears quickly and add two other approaches to their tool kits: *heuristics,* or simple rules of thumb that speed up processes and decision-making, and *improvisation,* spontaneous efforts to address problems and opportunities. Drawing on the experiences of a successful expedition up the most challenging route on Mount Everest, the authors explain when each approach works best and how your organization can prepare itself to weather crises by learning to alternate them.

To Recognize Risks Earlier, Invest in Analytics

Cassie Kozyrkov | page 53

Recently analytics has become the unloved stepchild of data sciences. That's a shame, says Kozyrkov, Google's chief decision scientist, because during turbulence, analytics is essential. When a disaster strikes, the data that goes into statistical and AI models can quickly become obsolete, rendering them useless. Analytics, in contrast, helps you figure out where events are heading and what questions to ask. Analysts are explorers who keep their finger on the pulse of what's happening by scanning the horizon and searching internal and external data sources. Effective analytics functions cannot be cobbled together overnight, however, and firms need to commit to building an environment in which they'll flourish.

HOW I DID IT

The CEO of Iberdrola on Committing to Clean Energy

José Ignacio Sánchez Galán | page 33

In 2001 Iberdrola, which had resulted from a merger between two Spanish utilities nearly 10 years before, held assets that were primarily sustainable but included some power-generation plants fired by oil and coal. Its footprint was limited to Spain and a bit of Latin America.

Looking for a CEO who was willing to challenge traditional industry models and build a better future, the company tapped Galán. His values gave him the grounding to design and lead Iberdrola's green mission, and he describes the past two decades as some of the most rewarding of his career. He and his team focused an ambitious strategy on their core business of generating and distributing sustainable and renewable energy through plants, networks, and storage facilities, doubling down on a low-carbon future. Competitors thought they were crazy, and regulators raised a skeptical brow. Some senior executives retired or left.

But since then Iberdrola has expanded into dozens of countries on four continents, grown to serve 100 million people with power, created one of the largest wind energy companies in the world, and closed all its oil and coal plants. Its net profit of 3.4 billion euros in 2019 represents a fivefold increase since 2001.

HBR Reprint R2006A

MANAGING YOURSELF

Be a Better Ally

Tsedale M. Melaku et al.
page 135

The Black Lives Matter and #MeToo movements have forced people in positions of power—namely, the white men who dominate institutional leadership roles—to realize they must personally step up to make organizations more fair and inclusive. That means playing a truly active role in helping marginalized colleagues advance (instead of just delegating diversity efforts to human resources).

How can white men be effective allies to those employees? First, by taking responsibility for their own behaviors, educating themselves about racism and privilege, and getting and accepting feedback from people in underrepresented groups. They can also become confidants to and sponsors of women and people of color and insist on diverse hiring pools and practices. They can vigilantly watch out for bias at work, intervening decisively if they discover it. Last, they can work to build a community of other allies against racism and sexism.

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I certify that all information furnished on this form is true and complete.

Gregory Daly, ASSISTANT DIRECTOR, OPERATIONS

Features

MANAGING PEOPLE

Our Work-from-Anywhere Future

Prithwiraj (Raj) Choudhury | page 58

The pandemic has hastened a rise in remote working for knowledge-based organizations. This has notable benefits: Companies can save on real estate costs, hire and utilize talent globally, mitigate immigration issues, and experience productivity gains, while workers can enjoy geographic flexibility. At the same time, concerns include how to communicate across time zones, share knowledge that isn't yet codified, socialize virtually and prevent professional isolation, protect client data, and avoid slacking. Research into work-from-anywhere (WFA) organizations and groups that include the United States Patent and Trademark Office, Tata Consultancy Services, and GitLab (the world's largest all-remote company) highlights best practices and can help leaders decide whether remote work is right for their organizations.

HBR Reprint R2006C

MANAGING YOURSELF

How to Develop Your Leadership Style

Suzanne J. Peterson, Robin Abramson, and R.K. Stutman | page 68

Bosses often sense that something is missing in an employee's tool kit but can't put a finger on what it is. They say something like "You need certain important intangibles" or "You don't have enough gravitas," but they fail to provide advice or guidance.

What they're talking about is leadership style. In every interaction, we send signals to others that fall into two categories: power and attractiveness. Powerful markers are associated with confidence, competence, charisma, and influence but also arrogance, abrasiveness, and intimidation. Attractiveness markers are related to agreeableness, approachability, and likability but also diffidence, lack of confidence, and submissiveness. The more consistent our signals, the more distinctive our style.

This practical guide offers concrete advice for developing a dynamic and effective leadership style that draws from both types of markers for maximum impact.

HBR Reprint R2006D

ASSESSING PERFORMANCE

Reinventing the Leader Selection Process

Everett Spain | page 78

The U.S. Army has long struggled with toxic and inept leaders, and no wonder: It has historically chosen battalion commanders, a linchpin position, on the basis of 90-second file reviews. Last year it undertook an ambitious revamping of that selection process, which now involves four full days of physical, cognitive, and psychological assessments and interviews. The author, a lieutenant colonel who served as an adviser to the task force that designed and implemented the new process, describes it in granular detail, including a variety of rigorous measures for reducing interviewer bias and ensuring diversity and inclusion. Although specifically aimed at improving the validity, reliability, and developmental impact of the army's executive-leader selections, the redesigned process offers important lessons for any organization seeking to bolster its talent assessment and promotion practices.

HBR Reprint R2006E

ORGANIZATIONAL CULTURE

How Apple Is Organized for Innovation

Joel M. Podolny and Morten T. Hansen
page 86

When Steve Jobs returned to Apple, in 1997, it had a conventional structure for a company of its size and scope. It was divided into business units, each with its own P&L responsibilities. Believing that conventional management had stifled innovation, Jobs laid off the general managers of all the business units (in a single day), put the entire company under one P&L, and combined the disparate functional departments of the business units into one functional organization. Although such a structure is common for small entrepreneurial firms, Apple—remarkably—retains it today, even though the company is nearly 40 times as large in terms of revenue and far more complex than it was in 1997. In this article the authors discuss the innovation benefits and leadership challenges of Apple's distinctive and ever-evolving organizational model in the belief that it may be useful for other companies competing in rapidly changing environments.

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HUMAN RESOURCES

Rethinking the On-Demand Workforce

Joseph Fuller et al.
page 96

As companies struggle with chronic skills shortages and changing labor demographics, a new generation of talent platforms, offering on-demand access to highly trained workers, has begun to help. These platforms include marketplaces for premium expertise (such as Toptal and Catalant), for freelance workers (Upwork and 99designs), and for crowdsourcing innovation (Kaggle and InnoCentive). Almost all *Fortune* 500 firms use such platforms. But most do so in an ad hoc, inefficient way, according to a Harvard Business School/BCG study. Companies need to get much more strategic about their engagement with talent platforms and fully embrace their ability to increase labor force flexibility, speed time to market, and facilitate business model innovation. That will require rewiring policies and processes and redefining working norms. Most important, leaders must inspire the cultural shift needed to realize the platforms' transformative potential.

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MARKETING

Is Your Marketing Organization Ready for What's Next?

Omar Rodríguez-Vilá et al. | page 104

Sweeping technological change has revolutionized marketing, while societal challenges have raised expectations about marketers' social performance. This has altered customer needs, accelerated the entry of new types of competitors, and generated novel opportunities for value creation. It has also transformed how the function must work, requiring that it become more agile, interdependent, and accountable for driving firm growth. The authors provide a framework to help leaders identify the organizational design and capabilities needed to build a competitive, next-generation marketing function. Their framework has been used to guide marketing transformations at companies across industries, including consumer packaged goods, transportation, financial services, and retail.

HBR Reprint R2006H

DIVERSITY

Getting Serious About Diversity: Enough Already with the Business Case

Robin J. Ely and David A. Thomas | page 114

Leaders may mean well when they tout the economic payoffs of hiring more women and people of color, but there is no research support for the notion that diversifying the workforce automatically improves a company's performance. This article critiques the popular rhetoric about diversity and revisits an argument the authors made 25 years ago: To fully benefit from increased racial and gender diversity, organizations must adopt a learning orientation and be willing to change the corporate culture and power structure.

Four actions are key for leaders: building trust and creating a workplace where people feel free to express themselves; actively combating bias and systems of oppression; embracing a variety of styles and voices inside the organization; and using employees' identity-related knowledge and experiences to learn how best to accomplish the firm's core work.

HBR Reprint R2006J

INNOVATION

Innovation for Impact

Curtis R. Carlson
page 124

When he was the CEO of SRI International, Curtis Carlson presided over the conception and development of Siri, HDTV, and other groundbreaking innovations. Since then he has shared his approach with more than 500 corporate, university, and government groups. His methodology is based on the principles of active learning, which emphasize concise mental models, the continual iteration of ideas, real-time feedback, teamwork, and frequent comparison of alternatives. Those elements are woven into a process that focuses on customers' *needs,* a compelling *approach,* valuable *benefits relative to costs,* and superiority to the *competition.*

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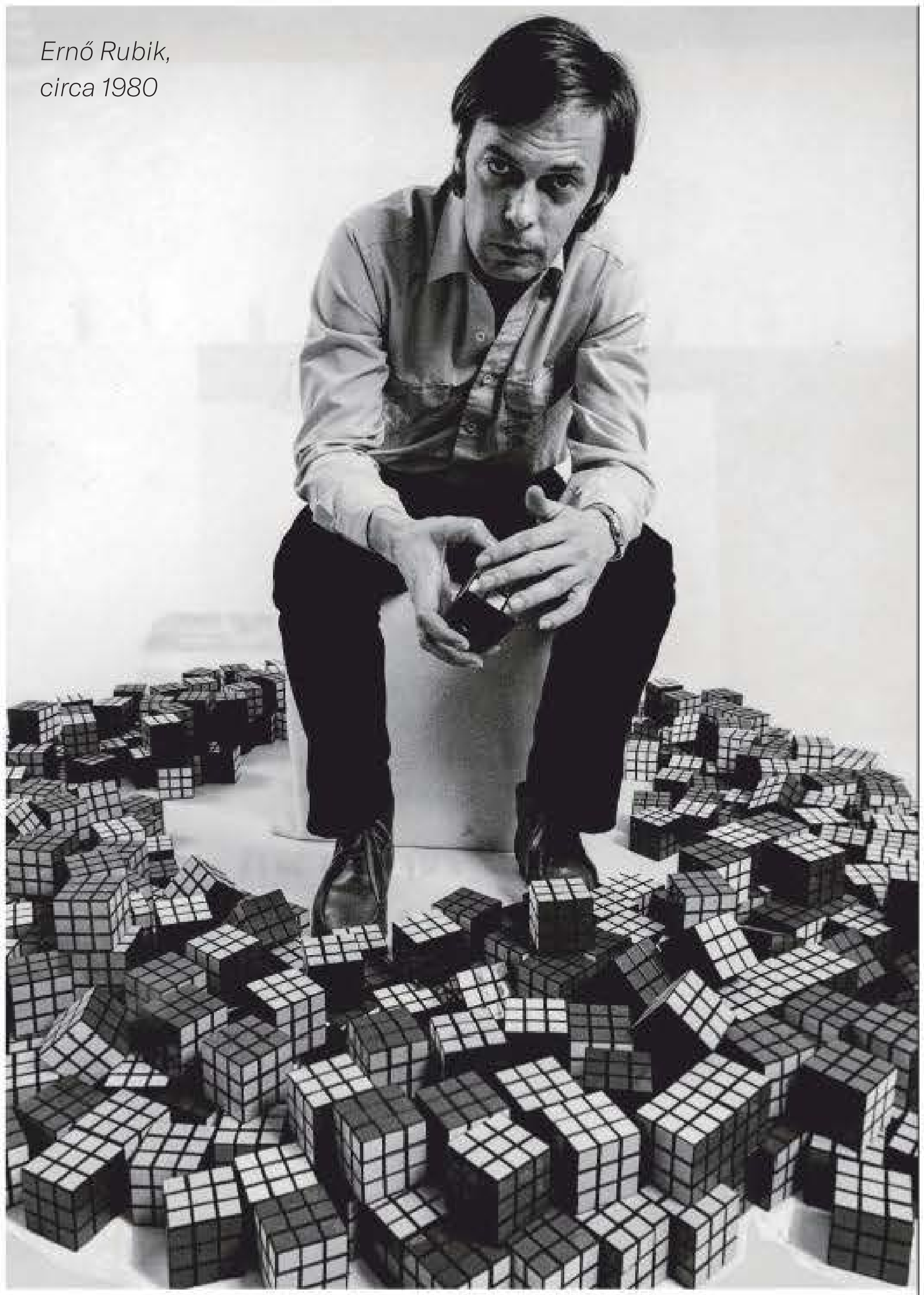
Life's Work

The Cube has become a symbol of everything I believe education should be about: curiosity, problem-solving, and the joy of finding your own solution.


Ernő Rubik, circa 1980

ERNŐ RUBIK

As a professor of architecture striving to help his students understand 3D geometry, Rubik created a puzzle that would, upon its global manufacture and distribution in 1980, capture the imagination of generations to come. The Rubik's Cube became one of the most popular toys in history, with more than 350 million sold to date. Today, Rubik is a staunch advocate for STEM and arts education and encourages his own company and others to lead the charge. His first book, Cubed: The Puzzle of Us All, *is out now.* **Interviewed by Alison Beard**

HBR: Who has inspired or influenced you in your career?
RUBIK: I'm impressed not by people but by what they've done or are doing. I admire literature, art, engineering—how things are accomplished. So I can't name people, just what they created. I hope that my fame, if I have any, is not because I'm different from others but because of the Cube and its content.

What makes for a good teacher?
It's important to share what you know with students but more important to discover their capabilities and help them find out who they are and what they're able to do. Learning is not the accumulation of knowledge. It is building the capacity to find new possibilities in novel circumstances.

How did you come up with the Rubik's Cube?
I was interested in geometry, construction, and working in three dimensions and looking for a tool to explain 3D transformations. That led me to discover the Cube. I don't like the term "invent" because it's really just finding what is already there but not visible or tangible to others. Another person can take a walk on your road and see stones. But you might see that one has the potential to be a diamond even though its qualities are hidden. And hopefully you also have the patience to find what is inside.

What hurdles did you face in trying to sell internationally?
When you make something, you need to prove to others that it has a value. Finding people who agree with you takes time and luck. You need a partner with expertise and a willingness to experiment. And you need teamwork so that you're moving together. Our first manufacturer was a very small Hungarian company. But the Cube I made with it became very popular, and based on that and growing interest from abroad we wanted a partner beyond the closed economy of the Iron Curtain. We finally found an American toy company and made a deal. Then there was a craze.

You later developed other Rubik products. How did you keep innovating, and how did you decide which ideas were worth pursuing?
Most people have lots of ideas. I think what makes me different is I have a good sense for evaluating mine, and if I find some value in one, I don't give up until I'm able to perfect it. Probably the most important thing, though, is that I love what I do. That's a key element to achieving your goals.

When you have a hit product, do you feel constant pressure to match that success?
I never planned to achieve this peak and had no idea I would. And after it, I had no thought that I'd like to do better. My only goal is to do well. I'm not thinking about whether people will like a product or not. I need to love it and meet my targets, nothing else. The Cube created the strongest connection with people—maybe because it taught them that they could solve difficult problems and rely on no one but themselves to succeed.

HBR Reprint R2006P

FOR MORE FROM ERNŐ RUBIK, GO TO **HBR.ORG**.