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May–June 2022

Designing Work That People Love

How to enhance engagement and commitment

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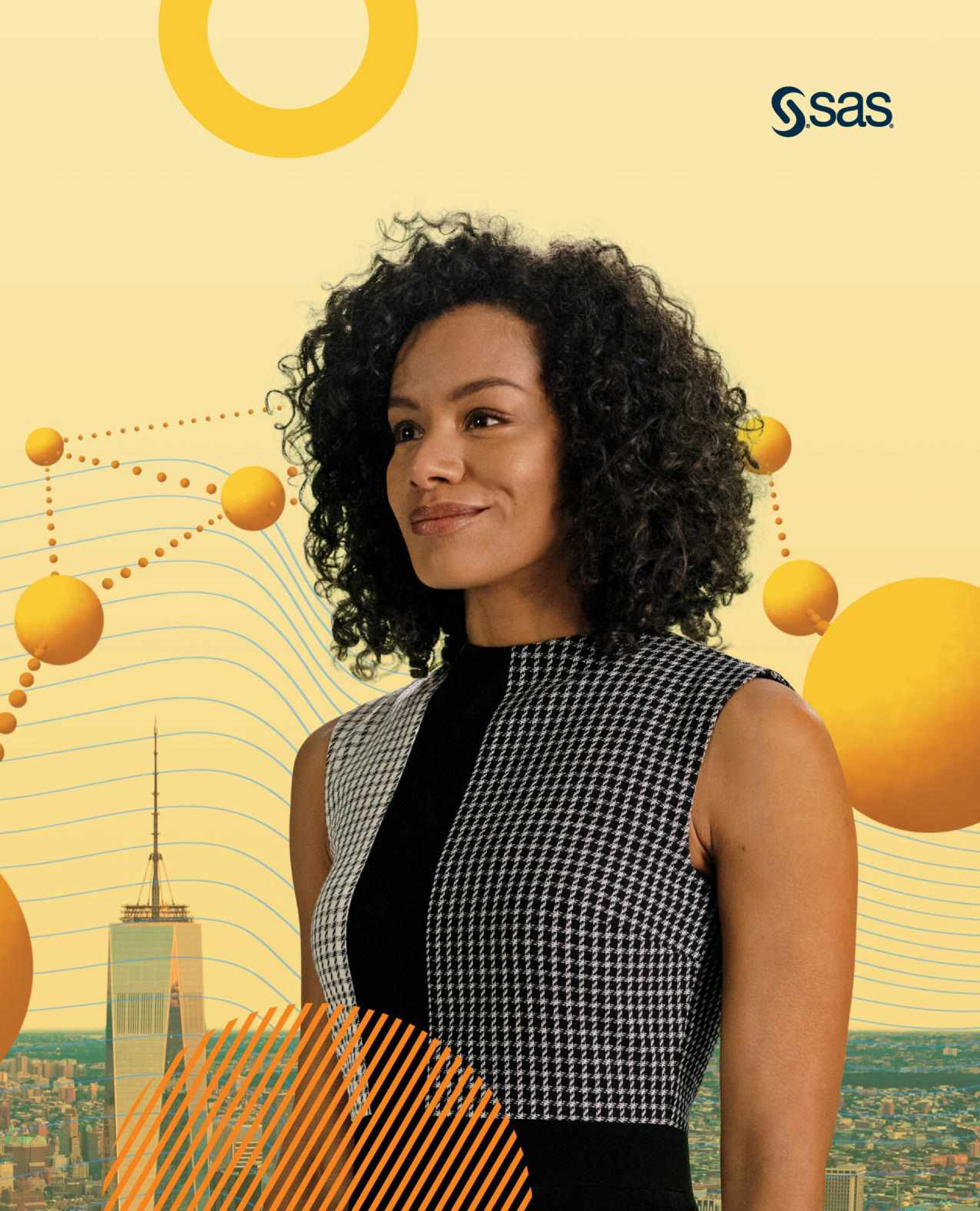


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“Employees who develop digital mindsets are more successful in their jobs, have higher satisfaction at work, and are more likely to get promoted.”

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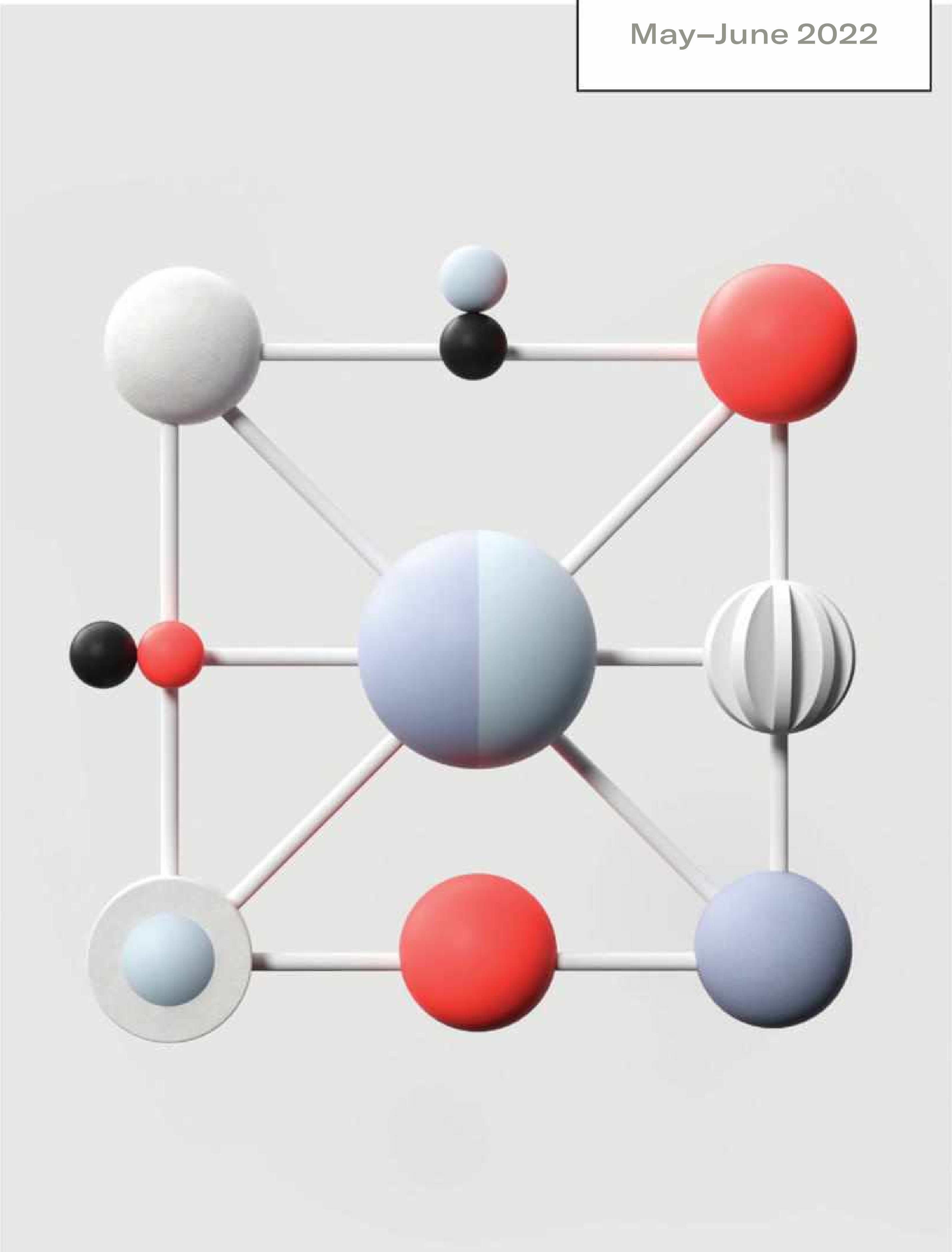
Dan Saelinger



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An Antidote to the Great Resignation

Adi Ignatius

THESE DAYS MANAGERS face a lot of challenges: supply chain issues, inflationary pressures, the lingering pandemic. Lately they've encountered an additional global threat: the Great Resignation. In the United States, which has a workforce of approximately 160 million, about 4 million people have been quitting their jobs each month—the highest quit rate on record.

The cover story in this issue offers a deceptively simple solution: *Design work that people love.*

The article is adapted from a newly released book by Marcus Buckingham, who has a history of offering provocative ideas about how people can collaborate better. In 2015 he and Ashley Goodall wrote another cover story for us, "Reinventing Performance Management," which sparked a widespread rethinking of the way companies conduct annual reviews. Buckingham's 2019 book, *Nine Lies About Work* (also written with Goodall), debunked common management practices that are based on fundamental misconceptions—for instance, that people can rate their colleagues fairly.

In his latest book, *Love + Work* (which, like *Nine Lies,* is published by Harvard Business Review Press), Buckingham hopes to inspire managers to build workplaces that make employees feel passionate and engaged. He says that process begins with measuring how many employees answer affirmatively to three questions: Was I excited to work every day last week? Did I have a chance to use my strengths every day? At work, do I get a chance to do what I'm good at and something I love?

We hope that his insights in this issue will help you find ways to lead more of your people to answer yes.

ADI IGNATIUS
Editor in chief

Sasha Patkin

Contributors

As a Black executive with decades of experience in corporate America, **James White** deeply understands the importance of diversity and inclusion in organizations. After the murders of George Floyd and others and the advent of the Covid-19 pandemic, he was compelled to share what he has learned. Those events "exposed a dark underbelly of business rooted in exploitation and oppression," he says. "I wanted to provide a playbook for creating anti-racist cultures." The result was the book *Anti-Racist Leadership,* written with his daughter Krista White, from which his article in this issue is drawn.

96 How to Build an Anti-Racist Company

A graduate of Leiden University with a degree in organizational psychology, **Wieke Scholten** began her career conducting behavioral analyses of interactions between surgeons and nurses in operating rooms. After the Great Recession, her attention turned to banking. Since 2011, she has helped Dutch Central Bank set up a behavior and culture expertise center and led the creation of the UK bank NatWest's behavioral risk unit. In this article Scholten, who now works at &samhoud, a Netherlands-based consultancy, explains how every company can use behavioral approaches to reduce risks.

104 A Better Approach to Avoiding Misconduct

Having seen companies across the globe grapple with accelerated digital transformations in response to the pandemic, Microsoft CEO **Satya Nadella** has noted that companies "are more resilient and more capable of transforming when faced with secular structural changes." But how do organizations tap into their technology to thrive? He and Marco Iansiti of Harvard Business School addressed this question by studying some of the world's most resilient and innovative firms. As they explain in this issue: "Companies need to equip their people with the tools to build their own digital capability."

42 Democratizing Transformation

Alice Boyes is a former clinical psychologist and researcher who changed careers to become a writer. Her area of expertise: techniques that simultaneously benefit people's emotional health and their performance. In her latest book, *Stress-Free Productivity,* she debunks the myth that habits, grit, willpower, and focus are the only routes to high performance. In this article she takes on procrastination, presenting research-based strategies for attacking the three factors that lead people to put off the things they need to get done. "When you understand the causes," she says, "you can use strategies that target them."

143 How to Stop Procrastinating

Artist **Benedict Redgrove** spent a decade on his project *NASA: Past and Present Dream of the Future.* For Redgrove, the goal was to capture the emotional and spiritual impact of the objects and places involved in space exploration. "I wanted to invoke a reaction, triggering a connection through memory or interpretation so that when we see them in fine detail, these machines and objects resonate with us," he says. "I wanted to reveal what they mean to us as human beings."

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IN THEORY

Tap the Talent Your Hiring Algorithms Are Missing

They may be turning great candidates away.

IT'S BEEN dubbed the Great Resignation: Nearly 20 million Americans left their jobs in 2021, and the trend is spreading to Western Europe, Asia, and beyond. Yet even as employers scramble to fill open positions, millions of capable candidates struggle merely to be considered. Why such a disconnect—and how can companies bridge it?

A study by Harvard Business School and Accenture finds a major reason for the gap: the near-ubiquitous use of automated hiring platforms, which systematically screen out large numbers of job seekers who might well fit the bill were their résumés ever to reach hiring managers' desks. Applicants with unconventional backgrounds—such as caregivers, veterans, immigrants, people with physical and mental challenges, and the previously incarcerated—are especially prone to being "hidden" from

Illustrations by **SIMO LIU**

IdeaWatch

prospective employers by the platforms. The report estimates that there are more than 27 million hidden workers in the United States alone. "These are people who want to work," says HBS professor and study coauthor Joseph B. Fuller. Some may be underemployed or working on a very part-time basis, while others have been locked out of the labor market altogether.

The researchers came to these conclusions after surveying 8,720 hidden workers and 2,275 executives in the United States, the UK, and Germany in 2020. The technology-fueled exclusion of such a large pool of talent is a tale of unintended consequences, Fuller says. The advent of online recruiting in the 1990s promised employers access to a broader array of applicants than traditional approaches could muster. But the result was an unmanageable deluge. By the early 2010s, each job posting yielded 120 applicants, on average, and the figure continued to rise. So employers turned to applicant-tracking and recruiting-management systems to help winnow the crowds, typically using filters meant to capture those who most closely matched the requirements of the role. And winnow they did: By 2020, employers typically interviewed four to six applicants for each listing out of an average pool of 250.

Many of those excluded could be highly productive workers, the researchers argue, including in middle- and high-skilled positions. An algorithm might weed out anyone lacking a college degree, having a criminal record or a gap in employment, or deficient in just one of several very specific skills—but "none of those are particularly good proxies for measuring aptitude, work ethic, and self-efficacy," says HBS's Manjari Raman, another coauthor of the study. She adds that "credential creep" exacerbates the problem, as firms pile on requirements over time. The hidden workers she and her colleagues surveyed had applied to an average of 25 jobs each in the previous five years, often without a single response. "Is it any surprise they eventually give up?" she asks.

Today's tight labor market gives employers a once-in-a-generation chance to rethink their recruiting strategies, Fuller says. Recruiting from previously unexploited talent pools is a major undertaking, to be sure, but he believes that it lies within reach. "Companies regularly make extraordinary efforts to revamp commercial supply chains in response to changes in market conditions," the researchers point out. "But few have extended fundamental principles of supply chain management—ranging from gathering data on supplier quality control to working with [suppliers] to address persistent problems—to hiring talent."

The potential rewards of doing so are considerable. The surveys showed that companies that intentionally seek out hidden workers are 36% less likely than others to face talent and skills shortages. What's more, those workers outperform their peers on six key criteria: attitude and work ethic, productivity, quality of work, engagement, attendance, and innovation. Because they are so eager to work, they're less likely than others to quit, so costs associated with turnover may decline. And because many are women or members of underrepresented groups, hiring them can move a company closer to its DEI goals.

Many large companies have begun thinking more expansively about how and whom they hire. IBM has eliminated college degree requirements for many roles, and JPMorgan Chase no longer asks if applicants have a criminal

record. CVS Health hires neurodiverse individuals to stock store shelves. The fast-casual chain Hot Chicken Takeover employs people recovering from substance abuse in its kitchens. And carmakers VW, Daimler, and Porsche have recruited refugees to work on their assembly lines.

The research team offers several recommendations for employers:

Change metrics. Companies should scrap short-term measures of hiring success, such as cost and time to fill vacancies, in favor of longer-term ones, such as how long it takes new employees to get up to speed, how long they stay, and their rates of promotion. That's harder than it sounds, Fuller says, because many firms have siloed recruiting and operations departments and are not accustomed to sharing performance management and other data.

Analyze data and rewrite job descriptions. Employers should analyze this longitudinal data to determine the must-have attributes for long-term success in each position. They should rewrite job descriptions accordingly, being especially vigilant about eliminating extraneous skills and ones that can be taught on the job. Armed with that information, employers can work with their technology vendors to ensure that candidates are screened and ranked according to the new criteria.

Employers should then form hypotheses about which segments of hidden workers are most likely to possess the must-have attributes. For instance, call centers have benefited from recruiting older workers, while aerospace and defense contractors successfully tap out-of-work veterans. Companies will often need help connecting with the identified segments. For some groups, such as veterans, immigrants, and previously incarcerated people, companies might turn to relevant nonprofits and social entrepreneurs for insights. In all instances, job listings should be as inclusive as possible. That means stripping out daunting jargon, excessive superlatives such as "world-class" and "expert" (which have been shown to deter female and minority applicants), and gender-biased language that appeals to men (no more ads seeking "rock stars" or "ninjas").

Focus on onboarding. Finally, employers of hidden workers should accept slightly higher onboarding costs, given that a typical "one size fits all" approach is often ineffective for hidden workers, who have their own needs, strengths, and experience gaps. Employers must also ensure that such workers are not ostracized, perhaps by involving more colleagues than just the hiring manager in onboarding, or by enlisting a senior leader to debunk myths that surround hidden workers.

"The practices that help pave the way for re-entry for hidden workers [are] neither exorbitantly expensive nor extraordinary," the researchers conclude. "They are commonsense practices that help attract any worker." By improving practices, they argue, companies are better able to attract all types of talent quickly and intelligently.

HBR Reprint F2203A

ABOUT THE RESEARCH *"Hidden Workers: Untapped Talent," by Joseph B. Fuller et al. (Harvard Business School and Accenture, 2021)*

IN PRACTICE

"Employers May Not Be Looking in the Right Places"

*As the longtime senior director of workforce initiatives at CVS Health, **Ernie DuPont** has built a career finding talent in unconventional places. His team partners with local governments, community groups, and nonprofit organizations to recruit workers typically overlooked by corporate America. He recently spoke with HBR about his efforts to bring "hidden workers" on board at CVS Health. Edited excerpts follow.*

CEOs complain about a hiring crunch, yet millions of people are unemployed. What's your take on the situation?

Employers may not be looking in the right places. Twenty years ago we made the business decision to tap pools of workers who were otherwise overlooked. One of our first projects was in Washington, DC. Working with the mayor, we identified a district that was economically depressed. We set up a career center that included a mock pharmacy so that community members could see shelves with products, see the registers, understand what working at CVS would entail. We now have similar

centers all over the country. We've hired more than 120,000 people who were previously on some type of public assistance. We have initiatives to recruit veterans and mature workers. We also have 50 simulated sites around the country aimed at attracting and training people with disabilities. Since 2012 we've recruited 4,000 workers through these programs.

Has it paid off?
Yes. Retention among people from those initiatives is often higher than that among workers who come through typical channels.

What are the keys to your success?
The key element is our strategic partnerships with organizations that can help us access these workers. When we're vetting a potential partner, we try to find common goals so that we can deliver results that matter to all the stakeholders. That might mean that CVS Health invests in the community. We have a career center in Pittsburgh, where we work to address food insecurity and provide on-site health, dental, and eye care clinics. We were able to expand our initiatives through a partnership with a local church. We believe that a healthy, thriving community delivers a better workforce, and that fits with our mission as a health care company.

The Harvard Business School/Accenture study says that résumé-screening algorithms weed out strong candidates. Has that been your experience?
They can. We've made some changes over the past year to remove some educational requirements from some of the roles in our company.

What's stopping other companies from doing the same?
We've worked with other companies to help them set up nontraditional hiring programs. T.J. Maxx is an example. What I say to leaders up front is that you must accept that you won't get immediate results. I see companies try initiatives like these with a traditional "experimental" mindset: If they don't get results right away, they shrug and move on. My advice is to commit to two or three years. And you can't apply metrics such as cost and time to fill positions to measure success. That's not how our initiatives are judged.

What metrics do you use?
We emphasize the quality of programming, the relationships, and the long-term outcomes. We define success as building and maintaining a pipeline of talent that is steady regardless of what's going on in the wider labor market. So as you can imagine, we're proving the value of our approach at the moment.

Photograph by BRYAN DERBALLA

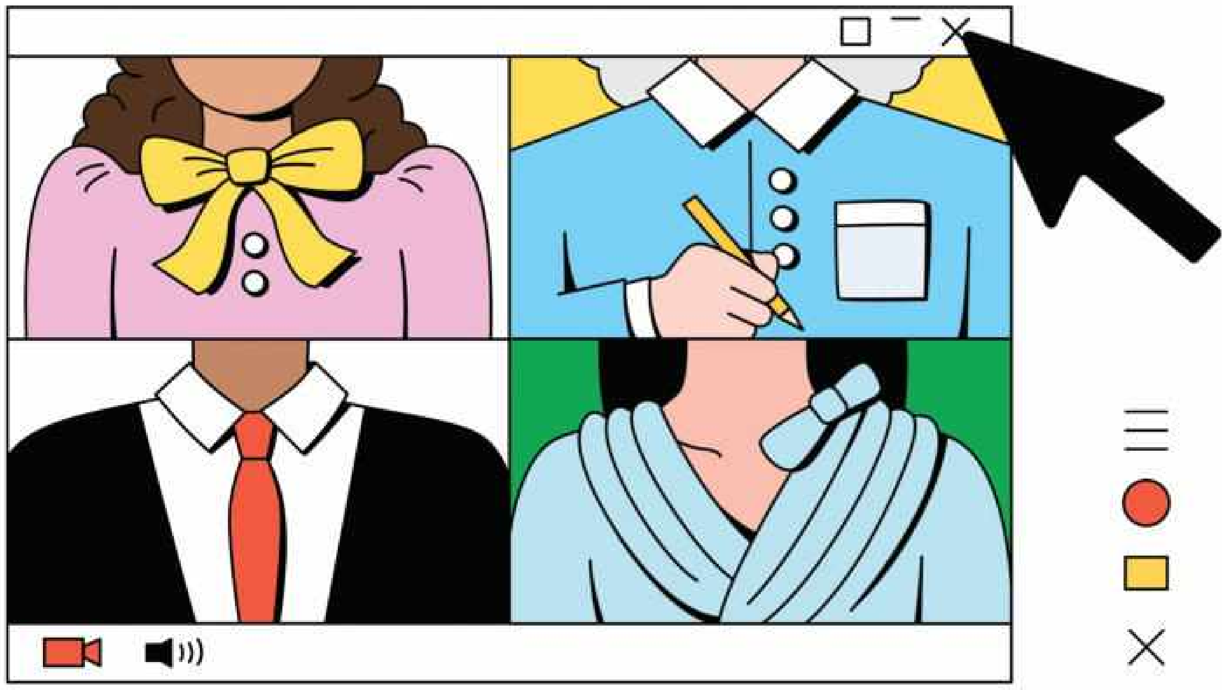
IdeaWatch

IS POLITICS NARROWING YOUR RECRUITING PIPELINE?

Nearly one-third of U.S. job seekers surveyed said they had decided not to apply to a particular firm because of its party affiliation or the stances it took on specific issues. "Organizational Political Affiliation and Job Seekers: If I Don't Identify with Your Party, Am I Still Attracted?" by Philip L. Roth et al.

REMOTE WORK

Time to Retire the "Zoom Mullet"?



Business tops paired with casual bottoms—the so-called Zoom mullet—became the norm for many people videoconferencing during the pandemic. One survey found that 75% of remote workers dressed that way, and retailers have reported large drops in pant sales relative to shirt sales. But new research finds that this covert mixing of attire might not be psychologically optimal.

In their first experiment, the researchers asked 177 participants to spend a workday wearing whatever they normally would, to provide a baseline. Each was then instructed to dress in three different ways, in random order, across the next three days: in typical work attire, typical home attire, and work on top/home on bottom. Surveys at the end of each day revealed that participants felt more authentic in home attire than in work or mixed attire, and this led them to feel more engaged as well.

Some 238 people participated in the second experiment, which took place over two days. On the first, they dressed as usual while working from home. On the second, they were randomly assigned to dress in one of the three ways described above. Again, those fully in casual attire had the highest levels of authenticity and engagement.

The symbolic meanings attached to particular types of clothing affect the wearer's psychological state, the researchers say, promoting harmony when attire is appropriate for a given context and dissonance when it's not. Mixed attire may heighten dissonance by activating associations with both home (a casual context) and work (a task-oriented one). And among the participants, dressing to align with the context of home was more beneficial than aligning with the context of work.

"In contrast to what many social media posts suggest, the Zoom mullet may not be the perfect pandemic work-from-home attire after all," the researchers write. "Sartorially committing to home attire during remote work may make people feel more harmonious, leaving them, and their organizations, better off." Employers, they add, might consider explicitly relaxing their dress codes for people working off-site.

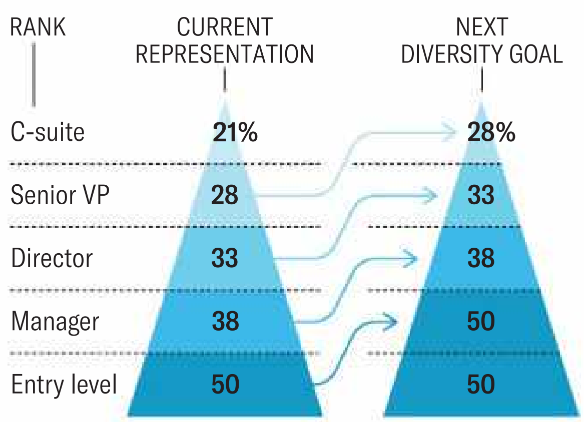
ABOUT THE RESEARCH *"Enclothed Harmony or Enclothed Dissonance? The Effect of Attire on the Authenticity, Power, and Engagement of Remote Workers," by Erica R. Bailey, C. Blaine Horton, and Adam D. Galinsky* (Academy of Management Discoveries, *forthcoming)*

DIVERSITY

How to Achieve Gender Parity Across the Organization

It's a common scenario: A company's entry-level workers are equally divided by gender, but the share of women drops at every succeeding level. The "gender proportionality principle" offers a remedy: At any given level, leaders should strive for the gender composition of the level beneath it. The chart below shows how this could work in a typical organization.

Share of women



Source: "Achieving Gender Balance at All Levels of Your Company," by Siri Chilazi, Iris Bohnet, and Oliver Hauser (HBR.org, 2021)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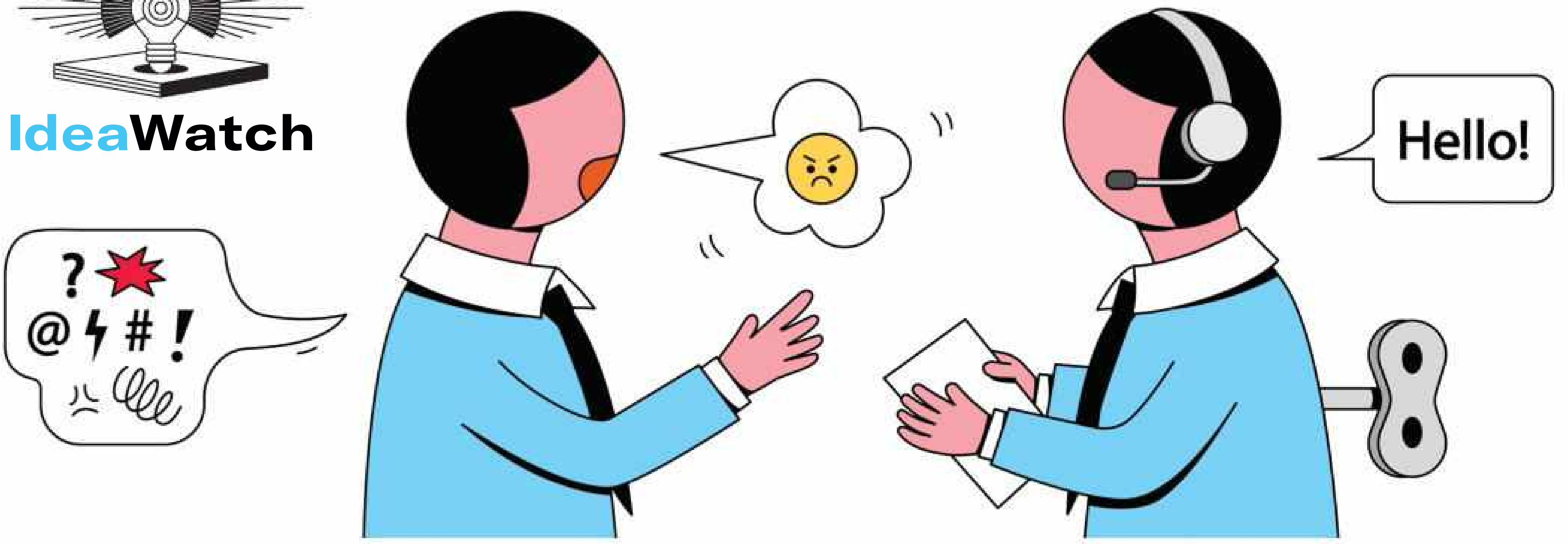


CUSTOMER SERVICE

When Chatbots Are *Too* Human

Chatbots are increasingly common in customer service interactions, and many companies try to "humanize" them by giving them names, avatars, and even biographies listing their supposed hobbies and interests. But such anthropomorphism can backfire: Across five studies, researchers found that angry customers' dissatisfaction with a service encounter was heightened the more that customers perceived the bot to resemble a person.

In their first study, the researchers analyzed 34,639 customer–chatbot sessions with a global telecom company. They used natural language processing to measure customers' anger and the number of times people used the bot's name—a proxy for how humanlike they perceived it to be. If a customer was even a little angry, end-of-session surveys showed, perceptions of anthropomorphism decreased satisfaction with the encounter. Neither anger nor anthropomorphism alone had a significant effect.

Subsequent lab experiments obtained similar results and found that reducing a bot's humanlike traits (for example, by removing the avatar) tempered the effect. They also showed that anger and anthropomorphism similarly sparked more-negative evaluations of the company as a whole and lowered purchase intent. And they explored why those things happened, finding that the more a bot resembled a human, the more customers expected it to solve their problem—and angry customers wanted to punish the company when those expectations went unmet.

Companies could act on these findings in several ways, the researchers say. They could use natural language processing to gauge customers' anger at the start of an interaction and route people to a chatbot with an appropriate level of anthropomorphism. More broadly, they could use nonanthropomorphic bots in contexts (such as complaint centers) that typically involve angry customers. And they could take a page from companies like Slack, whose bot cheerfully informs people, "I…am not a human. Just a bot (a simple bot, with just a few tricks up my metaphorical sleeve)" to keep expectations in check. "If an anthropomorphic chatbot is deployed to angry customers, it is best to downplay its capabilities," the researchers write.

ABOUT THE RESEARCH *"Blame the Bot: Anthropomorphism and Anger in Customer–Chatbot Interactions," by Cammy Crolic et al.* (Journal of Marketing, *2022)*

SOCIAL MEDIA

We're Worse Than We Think at Discerning Lies

Discussions about the prevalence and impact of fake news often center on confirmation bias: our tendency to believe and share things that fit with our prior beliefs. A new study finds that we're poor judges of veracity even when we have no predisposition to trust a particular source—and we overestimate our powers of discernment.

In three experiments, the researchers asked participants to record two short videos—one in which they described a real-life news event and one in which they made up an event. They were told they would get a monetary reward if viewers thought that the events depicted in either video were true. Viewers, for their part, were paid both for accuracy and for correctly gauging their accuracy. Across all the experiments, viewers' ability to distinguish lies from truth hovered at or just above 50%; they could have done nearly as well, on average, by flipping a coin. They erred in both directions, believing false videos and doubting true ones. And despite their lackluster showing, more than 65% of men and 61% of women thought they'd performed better than they actually had.

WINNING IN MORE WAYS THAN ONE

After the elite Muslim soccer player Mohamed Salah signed with Liverpool FC, in 2017, hate crimes in the city dropped by 16% relative to what would otherwise be expected, and the club's fans posted half the number of anti-Muslim tweets as did fans of other top UK clubs. "Can Exposure to Celebrities Reduce Prejudice? The Effect of Mohamed Salah on Islamophobic Behaviors and Attitudes," by Ala' Alrababa'h et al.

In one of the experiments, the researchers explored whether certain behaviors exhibited in the videos were associated with lying. This pointed to several clues (for example, videos containing relatively more words were more likely than others to be false), and analysis suggested that viewers noticed the clues—but they tended to interpret them in the wrong direction (for example, judging wordier videos to be true).

In the final experiment, some viewers were shown the titles and screenshots of eight videos, including one they knew had been shared by a previous viewer because he or she found it to be either "interesting and true" or "interesting and believable." They selected one of the eight to watch and assess for truthfulness. Knowing that a video had been shared greatly increased the chances that participants would choose it to watch. That knowledge also boosted the odds of their believing it, especially among those told that the previous viewer had thought the video was true. Yet in reality most of the shared videos were false and had been misjudged by the first viewers.

"Even when [monetary] motivation is removed, receivers' ability to detect lies is limited," the researchers write. "The combination of overconfidence and being bad at detecting lies, with an overreliance on shared content, may explain why fake news is so prominent and influential."

ABOUT THE RESEARCH *"Mistakes, Overconfidence, and the Effect of Sharing on Detecting Lies," by Marta Serra-Garcia and Uri Gneezy* (American Economic Review, *2021)*

PUBLIC POLICY

Paid Family Leave Pays Off—for Employees *and* Firms

The United States is the only industrialized country with no national paid maternity leave, but a handful of states have implemented paid family-leave policies in recent years, providing data for a rigorous new study on how the policies affect firm performance.

The researchers gathered data on 3,426 public firms and more than 4.7 million business establishments (factories, stores, and so on) from 1996 to 2019. They first compared firms in states that had passed a paid family-leave act with similar firms in states that hadn't. Their analysis showed that starting two years after the passage of a state's act, firms headquartered there enjoyed, on average, a one percentage point increase in operating performance, as measured by returns on assets, and a 5% increase in productivity, as measured by revenue per worker; firms in states without such acts did not. Leave acts also boosted long-term stock returns and reduced employee turnover. The effects were more pronounced for public firms than for private ones; in firms with relatively more female executives and directors; where there were relatively more women of childbearing age; and where people were less religious. Examining the data through an alternative lens—the share of employees living in states with a paid family-leave act—similarly revealed beneficial effects for firms.

"Our findings suggest that paid family leave promotes economic growth via improved operating efficiency," the researchers write. "By reducing female employees' expectations of future job separation, the introduction of paid family leave promotes investment in firm-specific human capital and productivity." Moreover, "firms attenuating frictions for working mothers are rewarded by the market."

ABOUT THE RESEARCH *"Paid Leave Pays Off: The Effects of Paid Family Leave on Firm Performance," by Benjamin Bennett et al. (National Bureau of Economic Research working paper)*

IdeaWatch

I SPEAK, THEREFORE I LEAD

Groups choosing a leader prioritized one factor above all else: speaking time, which outweighed intelligence, personality, and prior knowledge of the task at hand. Men got one extra vote, on average, simply for their gender. "Testing the Babble Hypothesis: Speaking Time Predicts Leader Emergence in Small Groups," by Neil G. MacLaren et al.

BIAS

When Seeking Help, Marginalized Groups Should Cite, Not Hide, Their Identities

Women and minorities are often discriminated against if their demographic identities are easily inferred. For example, candidates with Black-sounding names get fewer responses to their résumés than do candidates with white-sounding names. But when they're asking others for help, new research finds, explicitly mentioning their identities boosts the odds of success.

In their first experiment, 2,476 white male city counselors were sent an email from a fictitious student requesting career advice. The researchers varied the student's name so that the sender appeared to be either a white male or a member of an underrepresented group. Some messages explicitly revealed the sender's identity ("As a young Black woman, I…"); in the rest, senders referred to themselves simply as "a young person." White males got the same rate of response regardless of whether they highlighted their identity—but women and minorities were 24% likelier, on average, to get a reply when they mentioned theirs. In a follow-up experiment, demographically diverse participants were 80% likelier to help "Demarcus Rivers" when he stated that he was Black rather than leaving them to infer that from his name. Their own race, along with their gender and political ideology, did not affect results.

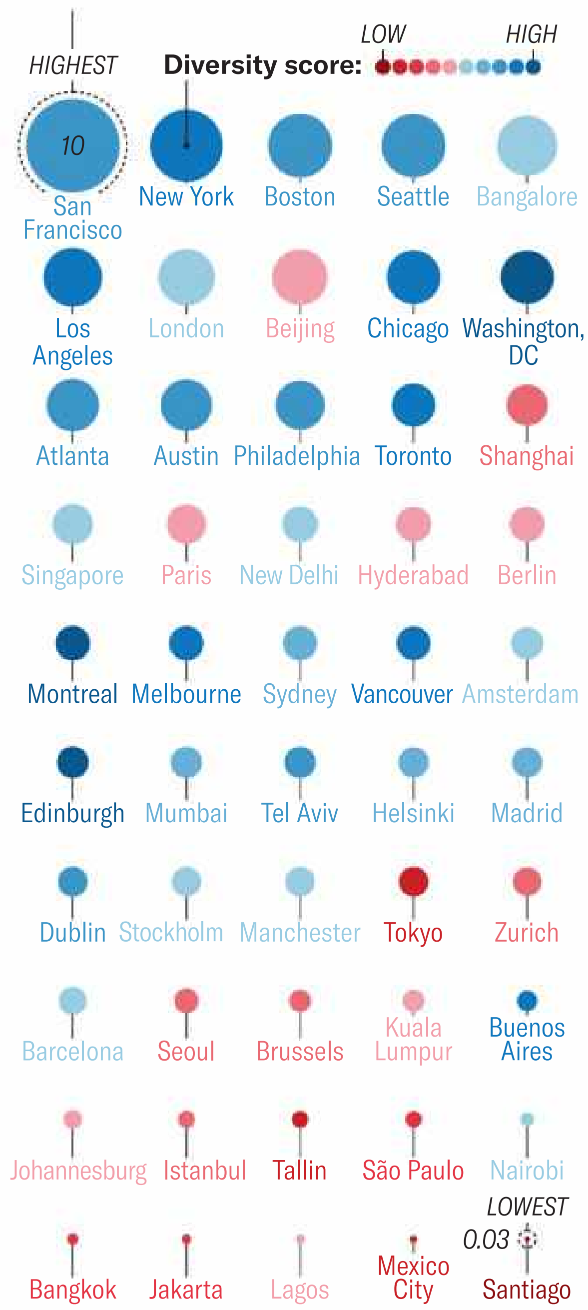
"When someone explicitly mentions their marginalized demographic identity in a request for help, it elicits a different reaction than [incidentally] conveying the same demographic identity," the researchers write. "Prospective helpers may worry that a failure to respond could amount to discrimination."

ABOUT THE RESEARCH *"When Seeking Help, Women and Racial/Ethnic Minorities Benefit from Explicitly Stating Their Identity," by Erika L. Kirgios et al. (Nature Human Behaviour, forthcoming)*

AI RECRUITMENT

Beyond Silicon Valley

Building AI that works for all requires a diverse workforce. Below, the top 50 cities for AI hiring are ranked by size of talent pool, VC investments, digital infrastructure, and diversity of talent pool, with circle size indicating the total score. The diversity score, shown by color, encompasses racial and gender representation, acceptance of migrants, and cost of living.



Source: "50 Global Hubs for Top AI Talent," by Bhaskar Chakravorti et al. (HBR.org, 2021)

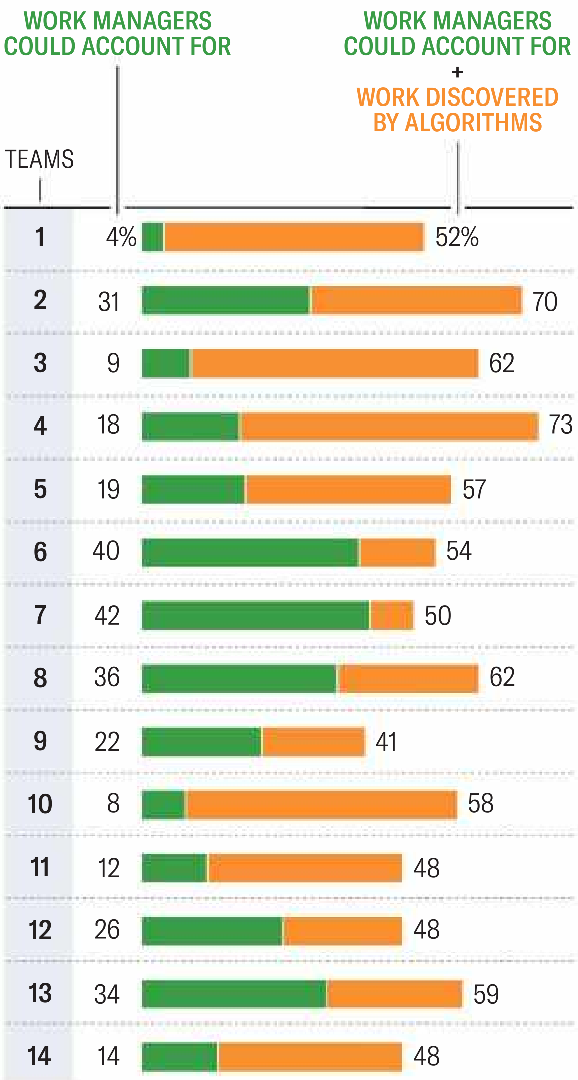
IdeaWatch

PRODUCTIVITY

Do You Really Know What Work Your Teams Are Doing?

Fourteen *Fortune* 500 managers recently surveyed thought they could account for 80% of their teams' work, on average—but analysis showed that they could account for far less. Machine-learning tools that detect patterns of work dramatically increased managers' visibility into their teams' efforts, allowing for more-realistic targets and better resource allocation.

How much managers know about their teams' work



Source: "Do You Know How Your Teams Get Work Done?" by Rohan Narayana Murty et al. (HBR.org, 2021)

ENGAGEMENT

An Upside to On-the-Job Interruptions

As employees back at the office have rediscovered, interruptions from colleagues are an inescapable part of workplace life. Although they're usually cast in a dim light, as sapping concentration and productivity, new research finds they can have positive effects too.

In their first study the researchers asked 139 employees over 12 consecutive workdays to describe their most recent work-related interruption, a non-work-related interruption, or their overall work experience that day. The employees also rated their subsequent engagement and collaboration. As one would expect, interruptions unrelated to work decreased engagement (they had no effect on collaboration), but ones having to do with work increased both engagement and collaboration. Although they briefly diverted workers from the task at hand, they afforded opportunities for interaction, learning, and growth.

In the second study, 201 workers were asked to review and correct several short transcriptions. Some were interrupted electronically by a fictitious colleague, either with task-related questions or with small talk; a control group received no messages but had the option of sending one to the supposed colleague. All then rated their engagement and collaboration. Results mirrored those of the first study.

In the final study, 140 colleagues were randomly paired up, with one person in each pair designated an "employee" and the other a "coworker." Employees completed daily surveys for three weeks about both kinds of interruptions and their levels of engagement and collaboration. Coworkers assessed the degree to which their partners had engaged in two types of "citizenship" behavior: helping with tasks and being personally supportive. Once again work-related interruptions boosted engagement and collaboration. Engagement in turn increased task-focused citizenship behavior, while collaboration increased person-focused citizenship behavior. Nonwork interruptions again decreased engagement.

"Intrusions can lead to employee attitudes and behaviors that organizations routinely try to maximize," the researchers write. "Managers could establish norms regarding work-related intrusions. For example, a manager might communicate to employees that their door is always open for discussing new projects and ideas, but conversations about sports and pop culture are best saved for break time."

ABOUT THE RESEARCH *"To What Do I Owe This Visit? The Drawbacks and Benefits of In-Role and Non-Role Intrusions," by John T. Bush et al.* (Journal of Management, *forthcoming)*

COMPILED BY HBR EDITORS | SOME OF THESE ARTICLES PREVIOUSLY APPEARED IN DIFFERENT FORM ON HBR.ORG.

ARTIFICIAL INTELLIGENCE – THE SIXTH SENSE FOR SUPPLY CHAIN RISKS?

The supply chain disruption triggered by the COVID-19 pandemic caught almost everyone off-guard. Although most enterprises had some business continuity plans, many were half-baked and never quite battle-tested.

The lockdowns and restrictions on movement of goods and people had pushed already stressed supply chains beyond the breaking point. Lean supply chains that had helped optimize costs were hit the hardest. These enterprises had to scramble to reconfigure alternative supply chains and stay operational.

For most enterprises, the rebuilding continues. The next year is expected to be a pivotal one for global supply chains as they transition from being "cost-efficient" to being "efficiently flexible."

As enterprises focus on building more agile and resilient supply chains, the just-in-time philosophy is yielding to a just-in-case mindset. While the pandemic isn't yet in the rearview mirror, enterprises recognize they need a risk management overhaul to weather the next disruption.

AI CAN HELP YOU SENSE, QUANTIFY AND VISUALIZE SUPPLY CHAIN RISKS

Enterprises face several challenges as they reconstruct their supply chains to mitigate risk. First, the risk signals are often weak and widely dispersed. That's where AI comes in — it can help decipher these shaky signals across your supply chain. AI can process vast amounts of data and understand patterns quickly and effectively. Think of it as a sixth sense, except it's based on real data and AI-based predictive analytics – not a hunch.

Another challenge is that enterprises do not have a quantified view of their supply chains' risk exposure. Risks vary for every company and industry. An AI-based digital supply chain "control tower" can help quantify and visualize these risks based on real-time data from multiple internal and external sources.

Last, but certainly not the least: Intelligence is only useful if it's reliable and gets to the right people at the right time to enable effective decisions and actions. To address the problem of stale and inaccurate data, revisit and refine your governance model. Information needs to flow efficiently to enable swift corrective action to mitigate potential risks before they become full-blown disruptions.

***PRAMOD GUPTA** is vice president of consulting at GEP, a global leader in digital supply chain and procurement transformation.*

" Risk signals are often weak and widely dispersed. That's where AI comes in — it can help decipher these shaky signals. Think of it as a sixth sense, except it's based on real data and AI-based predictive analytics – not a hunch.

GEP STRATEGY SOFTWARE MANAGED SERVICES

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Basima A. Tewfik, an assistant professor at MIT Sloan, ran two field studies and two experiments examining employees who have “impostor syndrome”—commonly thought of as the feeling of being inadequate and a fraud despite a reputation for success at work. She discovered that these individuals adopted a more other-focused orientation in their social interactions. As a result they were rated as more interpersonally effective. **The conclusion:**

Impostor Syndrome Has Its Advantages

Professor Tewfik, DEFEND YOUR RESEARCH

TEWFIK: People familiar with impostor syndrome tend to think that it’s uniformly harmful. To be sure, the belief that you’re not as competent as others think you are could certainly make you anxious and lower your self-esteem. But there’s an upside too. My research shows that experiencing this phenomenon can make you more adept at relationships, which is a key ingredient in career success. In one study doctors in training who had more-frequent impostor thoughts were significantly better at handling sensitive interactions with patients, which led those patients to give them higher interpersonal-skill ratings. In another study job candidates primed to have more impostor thoughts asked more questions during informal preinterview chats and as a result were viewed by hiring managers as having better people skills. Essentially, impostor thoughts make you more “other oriented”—more attuned to other people’s perceptions and feelings—which makes you more likable. In addition, impostor thoughts didn’t seem to hurt performance—at least not in my samples. Doctors who had more of them were just as likely as other doctors to give correct diagnoses, and job candidates who had more of them were just as likely to be invited for an interview after their chats with hiring managers.

HBR: So it’s OK—maybe even good—to have impostor syndrome? I wouldn’t go so far as to say “good,” but one of my goals with this research was to remove some of the stigma and give a more balanced view. I hope that this work can help people dampen the initial stress and anxiety that come with impostor thoughts by showing that there is this interpersonal silver lining. It’s OK to have impostor thoughts sometimes. It’s not a “syndrome” or a pathology.

But surely these thoughts do hurt your performance even if they enhance how other people view you interpersonally—especially in high-stakes jobs? I’m thinking of athletes, military officers, litigators, and CEOs. Interestingly, to date there’s no empirical quantitative evidence that impostor thoughts degrade performance. Yet this notion persists. Psychologists often point to something called the Yerkes-Dodson stress performance curve, which shows that a few nerves—up to a point—improve performance. It may be that having the right amount of impostor thoughts can provide just enough

Illustration by THUMY PHAN

> Impostor thoughts make you more "other oriented"—more attuned to other people's perceptions and feelings—which makes you more likable.

motivation to bring out your best work. It's an open question.

How do you determine whether someone has impostor syndrome—and to what extent? In the study with doctors, for example, how did you know which doctors had it? This question actually gets to the start of it all for me. Early on, in graduate school, I came to the realization that what researchers have been studying and calling impostor syndrome or impostor phenomenon over the past few decades was indistinguishable from fear. And if fear is what we've been studying, it's no wonder we think that experiencing it is all bad news.

So we needed to measure it in a way that actually captures its defining characteristic: the belief that others overestimate your competence. I used seven lab and field samples involving more than 1,000 people to develop and validate a new five-item psychological survey measure. Specifically, I ask people to indicate how frequently they entertain thoughts such as *People important to me think I am more capable than I think I am* or *Others think I have more knowledge than I think I do* when they're at work.

In the experiment with job applicants, how did you make people feel like impostors, and how quickly did that affect their behavior? I asked the employees randomly assigned to that group to reflect on a time in which they had impostor thoughts at work, while the control group considered a time when others saw them as they saw themselves or, in a second experiment, what they had for lunch. Immediately after those reflection periods, people in the impostor condition behaved differently from those in the control group: They started asking more questions.

Should we all be priming ourselves to have impostor thoughts? In other words, did Stuart Smalley from the 1990s *Saturday Night Live* sketch get it wrong? Instead of mantras like "I'm good enough, I'm smart enough, and doggone it, people like me," should our self-talk be more like "I don't think I'm good enough, I don't think I'm smart enough, but I'm not going to worry because that insecurity will make people like me"? Ha! I definitely do not think we should be intentionally inducing impostor thoughts. There are probably better interventions to help you form stronger professional relationships. Rather, I hope the takeaway from this research is that when you do find yourself having these thoughts—as you may from time to time—you shouldn't compound the stress that comes with them by also thinking that they're necessarily going to cause you to do poorly at work.

How many of us have impostor syndrome? A frequently cited statistic suggests that nearly 70% of people have entertained impostor thoughts at least at one point in their careers. These thoughts tend to come to a peak when you're facing a new challenge, starting a new job, or encountering new tasks after a promotion.

Do women and people of color have impostor thoughts more frequently? In all my studies—and this has been backed up by other researchers—I don't find significant differences. That is, white men seem to experience just as many impostor thoughts as women and people of color do. When people point to the impostor phenomenon in underrepresented groups, I think they're conflating it with something more insidious: a lack of belonging. A true impostor thought is *My colleagues think I'm smarter than I am*. It's not *I think other people question whether I belong here or think I'm not smart enough*.

In fact, if managers hear an employee from a minority group expressing what sounds like impostor thoughts, they might want to check to see if there is an inclusion problem. Maybe the minority employee is operating in a hostile, biased work environment.

Isn't there a risk that knowing the upside of impostor syndrome will stop you from feeling like an impostor? It's a good question. If you focus on the fact that your impostor thoughts will push you to compensate interpersonally, which gets people to see you as more socially skilled, does that eventually diminish your thoughts and the benefits they provide? We'll need more research, but I suspect that this knowledge wouldn't eliminate your impostor thoughts entirely. Even extremely successful people like Albert Einstein, former Starbucks CEO Howard Schultz, and the writer Maya Angelou publicly admitted to having impostor thoughts from time to time. I suspect that there will always be powerful environmental triggers that bring them on.

Interview by **Eben Harrell**

HBR Reprint F2203B

2021 HBR McKINSEY AWARDS

The HBR McKinsey Awards, judged by an independent panel of business and academic leaders, commend outstanding articles published each year in *Harvard Business Review*. The awards were established in 1959 to recognize practical and groundbreaking management thinking.

FIRST PLACE

Accounting for Climate Change

NOVEMBER–DECEMBER 2021

Most large companies now publish ESG reports describing progress on environmental, social, and governance initiatives. But as **Robert S. Kaplan** of Harvard Business School and **Karthik Ramanna** of Oxford write in this article, those reports "are often made up of inaccurate, unverifiable, and contradictory data." Their remedy: an E-liability accounting system to measure emissions and assign them to outputs using a combination of chemistry, engineering, and principles of cost accounting—which allows companies to track carbon emissions as accurately as they do financial data.

THE FINALISTS

The Circular Business Model

JULY–AUGUST 2021

Circular business models create supply chains that recover or recycle the resources used to create their products. In this article **Atalay Atasu** and **Luke N. Van Wassenhove** (professors at INSEAD) and **Céline Dumas** (a senior manager at Accenture France) outline three strategies for achieving circularity and offer a tool to help identify the one most likely to be economically sustainable.

Unconscious Bias Training That Works

SEPTEMBER–OCTOBER 2021

Many companies rely on unconscious bias training to become more diverse, equitable, and inclusive. But research has shown that it is most often ineffective and can even backfire. Harvard Business School professors **Francesca Gino** and **Katherine Coffman** describe a new way to help people manage their biases, practice new behaviors, and track their progress.

Net Promoter 3.0

NOVEMBER–DECEMBER 2021

Since its introduction, in 2003, the Net Promoter System for measuring customer loyalty has become ubiquitous. In this article **Fred Reichheld**, **Darci Darnell**, and **Maureen Burns** of Bain describe how NPS has been misused—and unveil an alternative and more verifiable metric, called *earned growth rate,* to help overcome its shortcomings.

THE JUDGES

Kathleen M. Eisenhardt
Professor, Stanford University School of Engineering

Claudio Fernández-Aráoz
Former partner, Egon Zehnder

Trevor Fetter
Former CEO, Tenet Healthcare

Sunil Gupta
Professor, Harvard Business School

Samantha Hammock
EVP and chief human resources officer, Verizon

Linda A. Hill
Professor, Harvard Business School

Herminia Ibarra
Professor, London Business School

The CEO of New Mountain Capital on Using PE Management to Ignite Growth

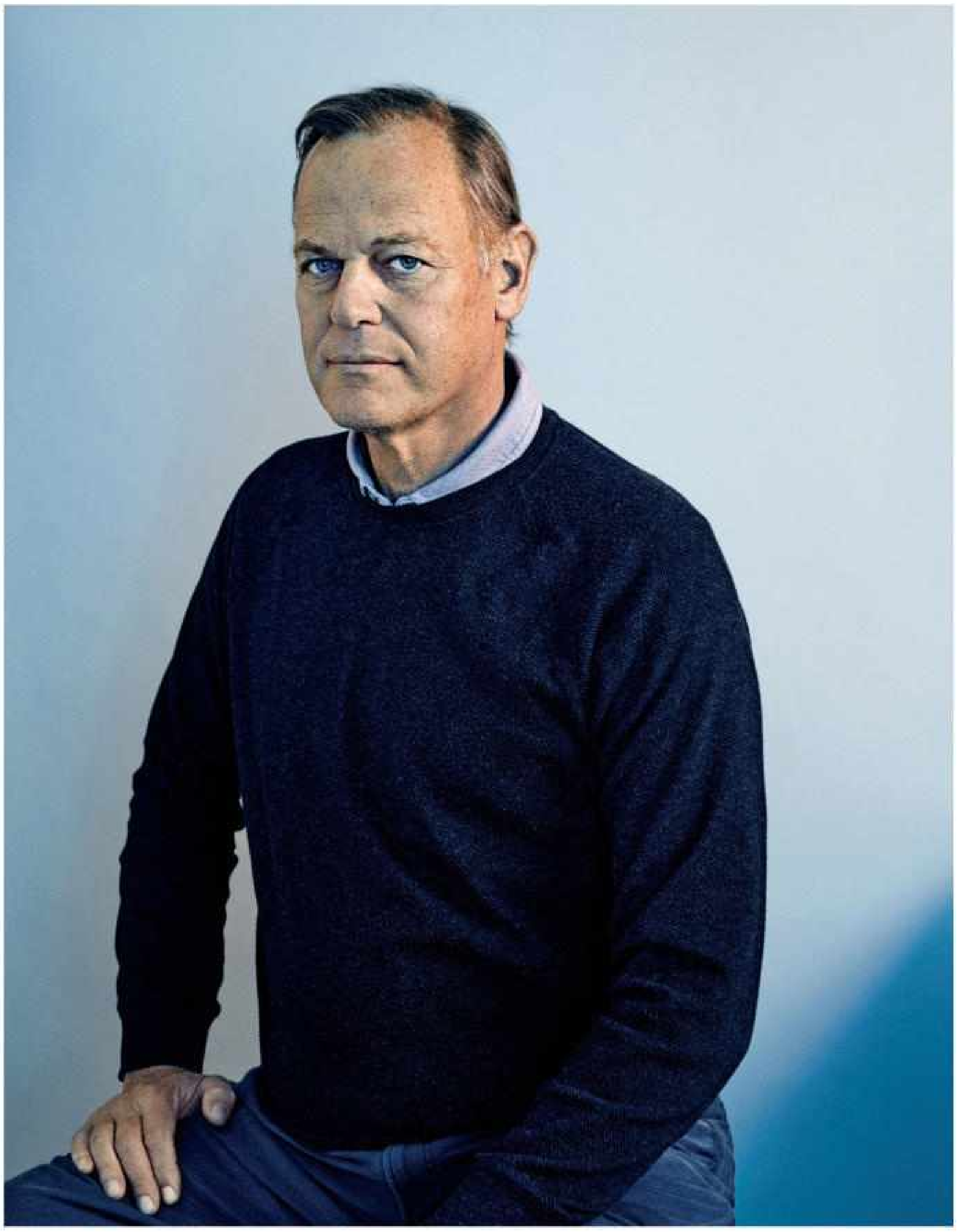
by Steve Klinsky

Above, center: Steve Klinsky, New Mountain's CEO; behind him, from left, Raj Merchant, William Haley, Jack Qian, and Peter Masucci, leaders of the New Mountain team for the company now named Blue Yonder

TWELVE YEARS AGO, in 2010, my private equity firm, New Mountain Capital, acquired a little-known Wisconsin software company, RedPrairie, for \$565 million. In September 2021 we sold that same company, now named Blue Yonder, to Panasonic at a total value of \$8.5 billion. About \$5.7 billion of the gain had come from organic growth, not acquisitions.

That success wasn't driven by some stroke of luck, technology break-through, or new product. Rather, it was the result of continual investment and

Photographs by GUERIN BLASK



improvement in the company's management, strategy, and governance—the same approach that best-in-class private-equity firms have employed for years across dozens of industries and thousands of companies. By explaining how New Mountain transformed Blue Yonder, I hope to show exactly how private equity firms create value for businesses and for the economy and to underscore how much the PE industry has evolved since its inception.

A NEW FORM OF BUSINESS

Private equity was first "institutionalized" about 40 years ago. Indeed, in 1981 I cofounded Goldman Sachs's original private-equity group. I later became a partner at Forstmann Little from 1984 to 1999. When I joined Forstmann, only about 20 private equity firms were in existence. They all had small staffs (I was initially one of five investment professionals at Forstmann, including the three founders), and most of them relied heavily on leverage to generate excess returns.

Private equity has changed dramatically since those early days. According to PitchBook, the United States alone now has about 5,000 PE firms, and they collectively own and oversee some 30,000 companies, employ 11 million people, and account for 6.5% of the country's gross national product. Over the past five years or so the industry has invested approximately $5 trillion of capital, generally in companies that would have been too small or "unexciting" to access public stock markets. Private equity has also in recent years generated the highest returns of any asset class for pension funds and endowments, even after accounting for all fees and carried interest, and has had less volatility on the downside than traditional public equities have.

To be clear, PE firms are not corporate raiders. Companies to be sold choose us as their preferred partners on an entirely voluntary basis. PE firms are not hedge funds either: We own and manage entire companies for years; we don't regularly trade in and out of stock positions. Nor are we venture capitalists, which may make lots of small investments and anticipate numerous failures as they seek some companies that perform extremely well. At New Mountain we aim to preserve and protect every business we buy, without portfolio theory, and help each one grow.

Private equity is most like an entrepreneur who is buying a business—but in place of one person who takes the helm of one company, our organized teams of professionals buy and build many companies. That means we offer the advantages of a large corporation—including strong, central, specialized teams and expansive networks—along with the flexibility and long-term

PE firms are not corporate raiders. Companies to be sold choose us as their preferred partners on an entirely voluntary basis.

mindset of an entrepreneur or a family business owner. That combination allows us to achieve success across many companies and over many years.

I left Forstmann in 1999 to launch New Mountain out of a one-man rented office with a metal desk. Since then it has expanded to more than 200 people (including both operators and financial experts) at headquarters, more than 55,000 people at the companies we own, and a wide range of allies and advisers. Over the past 23 years New Mountain has acquired or founded more than 60 companies, about 30 of which we presently own. Across all our current and past portfolio companies we have added more than 49,000 jobs (net of any job losses); spent more than $5 billion on research and development, software, and capital expenditures; and generated many tens of billions of dollars in enterprise value while never taking a company into bankruptcy or missing an interest payment. We now oversee more than $35 billion in assets and funds.

Private equity firms have varying styles. New Mountain looks to build businesses in secular growth (or "defensive growth") industries, with a flat hierarchy and a nonpolitical, respectful, and intellectually honest culture. Some of the sectors we emphasize include life sciences, health care (with companies that lower costs), water and power (with companies that upgrade the U.S. grid), digital transformation enablers, and data and data analytics enterprises. We generally use acquisition debt sparingly, and in some cases not at all. Before making any investment we develop a long-term growth plan for the target company. Once we've bought it, our assigned team works closely with management to continually update and achieve that plan.

Our experience with Blue Yonder highlights many of the techniques that we and other top PE firms employ to improve the companies we acquire. We offer the capabilities and access to capital that a large corporate parent would, without forcing companies to become part of a conglomerate culture. At the same time, we bring a fresh, entrepreneurial vision to strategy, talent, R&D, technology, and corporate alliances.

As Blue Yonder continues to grow as a large and important division of Panasonic, now operating on a global scale, we won't seek to take credit for its future success. But we do take pride in having helped turn RedPrairie's little business into a much more significant one that we hope will thrive for decades to come.

THE BLUE YONDER STORY

In 2010 RedPrairie was by all accounts a solid but somewhat sleepy company, one of three niche leaders in the supply chain software and logistics sector, with earnings before interest, taxes, and depreciation of about $60 million. We found it through a deep dive into the software space, following a previous success with a similar business, Deltek. We were attracted to the potentially rising demand for supply chain offerings given the spread of e-commerce and to RedPrairie's defensible market position, which included an installed base of 34,000 systems across 650 customers worldwide. We developed plans to accelerate the company's growth, including more sales and marketing, an increased emphasis on international business, and add-on acquisitions. We funded RedPrairie's purchase price of $565 million plus transaction costs with $335 million of equity from one of our funds and $240 million of debt set at only four times EBITDA. We reserved an additional $150 million of our fund equity for future growth investments.

The acquisition got off to a solid start, with New Mountain and RedPrairie's legacy management working closely together. Sales grew at a 17% compound annual rate from 2009 to 2012. We invested $25 million more in the company in 2011 to help fund the add-on acquisition of Escalate, further strengthening RedPrairie's product offering in e-commerce and multichannel retail. By 2012 we were able to pay our investors a dividend of $123 million, reducing risk.

Then came the type of opportunity that a traditional private company could not typically pursue without the support of a strong private-equity sponsor. With our assistance, RedPrairie acquired one of the two other leaders in the supply chain space: JDA.

Headquartered in Arizona, JDA was a publicly traded company and larger than RedPrairie. We negotiated to buy it for $1.9 billion in November 2012, creating a combined business with more than $1 billion in revenues, the 14th-largest software company in the nation, and the potential category leader in the end-to-end supply-chain space. New Mountain put $250 million of additional equity into RedPrairie to help fund the purchase, plus $125 million more from coinvestors. The decision to buy JDA was driven by the potential for a stronger combined product line, a larger total

Private equity involves no single magic bullet or trick. PE firms succeed when they do many things right.

sales force, and cross-selling opportunities. RedPrairie's legacy management heartily recommended the acquisition, with the JDA team slated to lead the combined company, which would retain the JDA name.

The logic for the merger was sound, but the initial execution was flawed. Some top talent became disaffected; a sales force reorganization was counterproductive; and new competitive technologies threatened to catch us or pass us by. I went to the company's national conference personally to assure employees that New Mountain would not abandon the business; rather, we would double down on our efforts to turn the company around and achieve success.

From that point on our team took an increasingly hands-on approach. This is another advantage of modern private-equity firms like ours: We have teams of functional experts on staff in every area from implementing IT systems to advanced procurement, from financial planning and analysis to understanding the newest Covid-19 regulations.

We took one of our own trusted internal operating partners—Baljit Dail, formerly a senior-level technologist and executive at McKinsey and Aon—and installed him as the company's new CEO. We also kept adding skills and team members to New Mountain itself, which we made available to help JDA and our other companies as needed. We have grown from 62 investment professionals in 2012 to more than 100 today, including software and supply chain experts such as Nadia Shouraboura (formerly the head of Amazon's supply chain), Robert Weiler (formerly an EVP at Oracle), Lawrence Jackson (formerly a senior executive at Pepsi and Walmart), and others. Nadia and Lawrence served on JDA's board. Others helped guide decisions. And in 2016 JDA regained momentum, showing sales and bookings growth and rising customer-satisfaction scores. Working with its leaders, we began crafting an improved strategy for the years ahead.

In December 2016, bolstered by those positive signs, we organized a new preferred-stock investment in JDA from New Mountain and Blackstone and used those proceeds to reduce the company's debt. New Mountain remained the controlling shareholder while Blackstone added capital and expertise. The ability to arrange that kind of sophisticated financing on favorable terms for existing shareholders—in a way that also benefits the business and its employees—is another skill set that private equity firms provide.

Then, in January 2017, we installed a new CEO at JDA, Girish Rishi. Girish considered Ed Breen, the CEO of DuPont, to be a mentor. Ed and I had worked closely together in the 1990s to build General Instrument, a Forstmann portfolio company, into a global leader in advanced communications technology. Ed had been a supporter of New Mountain since its launch and had recommended that another executive, Raj Gupta, join us. (We and Raj then had strong success at a company now called Avantor, which was acquired and transformed by New Mountain and has grown from a value of $290 million at purchase into a new member of the *Fortune* 500.)

That Girish agreed to join us reflects a principle I call the *talent per dollar ratio:* PE companies can often attract extremely talented and valuable managers to businesses that those executives wouldn't consider otherwise. They offer significant ownership opportunities (whether to purchase shares outright or to receive them as incentives). They also protect managers from the 90-day reporting pressures of public companies and the nepotism and professionalism issues they might see in family-run businesses. Girish worked with us and Blackstone to make other key additions, including a new CFO, Sue Savage; a new CMO, Kevin Iaquinto; a new chief development officer, Desikan Madhavanur; and a new head of sales, Mark Morgan.

With this team and a refined vision for growth, JDA could go on offense. It evolved its legacy products into software as a service (SaaS); added AI and machine-learning capabilities; and pioneered new products such as the digital fulfillment platform Luminate, which provides a "control tower" to optimize real-time decision-making across end-to-end global supply chains. Blackstone teams (led by Michael Capellas and Martin Brand) and New Mountain ones (led by Pete Masucci, Jack Qian, Bill Haley, and Raj Merchant) provided continuing value at the board and ownership levels. The company renamed itself Blue Yonder (a name taken from one of its AI-oriented add-on acquisitions) to reflect a fresh vision for the future. We soon attracted the attention of Panasonic, which purchased a 20% interest in the company in July 2020 and became a board member, owner, and partner. Blue Yonder continued to prosper in 2021, helping clients navigate the supply chain disruptions created by the pandemic.

After Panasonic acquired the rest of the company, last September, Girish and the other Blue Yonder executives invited their PE partners to dinner. We had a lot to celebrate. Since New Mountain's initial investment the number of its employees had grown from 1,100 to

Girish Rishi, until recently Blue Yonder's CEO, at the company's global annual kickoff in February 2020

Courtesy Blue Yonder

about 5,500. Lucrative SaaS bookings had grown from near zero in 2010 to 18% of the company's total in 2017, when Girish joined, to 79% in the second quarter of 2021. Recurring revenue from that business had been growing at a 79% average annual rate and was nearing half a billion dollars at the end of FY21. Under our and Blackstone's ownership the company had invested more than $1 billion in R&D over the prior 10 years and had built a portfolio of 400-plus patents. Blue Yonder had also won a 2021 Microsoft Partner of the Year award, an AI Breakthrough Award, and numerous honors, including for humanitarian efforts during the pandemic and for diversity, equity, and inclusion.

About 450 past and present members of company management were equity owners who benefited from the sale to Panasonic, and Girish read letters from some of them. Meanwhile, the multibillion-dollar payout to New Mountain went primarily to its limited-partner institutional investors: mostly pension funds, state retirement plans, and sovereign funds that represent hundreds of thousands of workers and retirees around the world. And although we're no longer involved with Blue Yonder, and Girish recently handed the role of CEO over to Mark Morgan as he moves on to pursue new ventures, the company continues to grow.

A REPLICABLE PROCESS

Private equity involves no single magic bullet or trick. Firms like ours succeed when they do many things right:

- Carefully choose which industries to enter, constantly skating to where the puck is moving
- Bring fresh thinking and new strategic perspectives to legacy businesses
- Focus on the long term, with multiyear planning horizons
- Recruit and install top-quality managers and board members, even at companies that start small
- Provide centralized resources for various functions
- Serve as professional, objective shareholders whose interests are aligned with those of our portfolio companies' management
- Push hard to help every portfolio company grow and generate returns
- Stay flexible with the balance sheet and capital structure
- Apply the networks, knowledge, and skills needed to create corporate alliances, execute strategic M&A, and make VC-style investments to provide higher returns

In the late 1800s corporations became a new form of ownership and governance, supplanting small hands-on shareholders with large professional teams. Since the late 1900s private equity has begun to emerge as an alternative, increasingly able to offer the best of both worlds—hands-on shareholders plus broad expertise. Blue Yonder is just one business that has gained value under PE ownership; private equity has produced trillions of dollars' worth of gains overall.

As members of this thriving ecosystem, and drawing on the strategies described in this article, we at New Mountain will strive to build many more successful companies in the future. We expect and hope that lots of other firms will join us.

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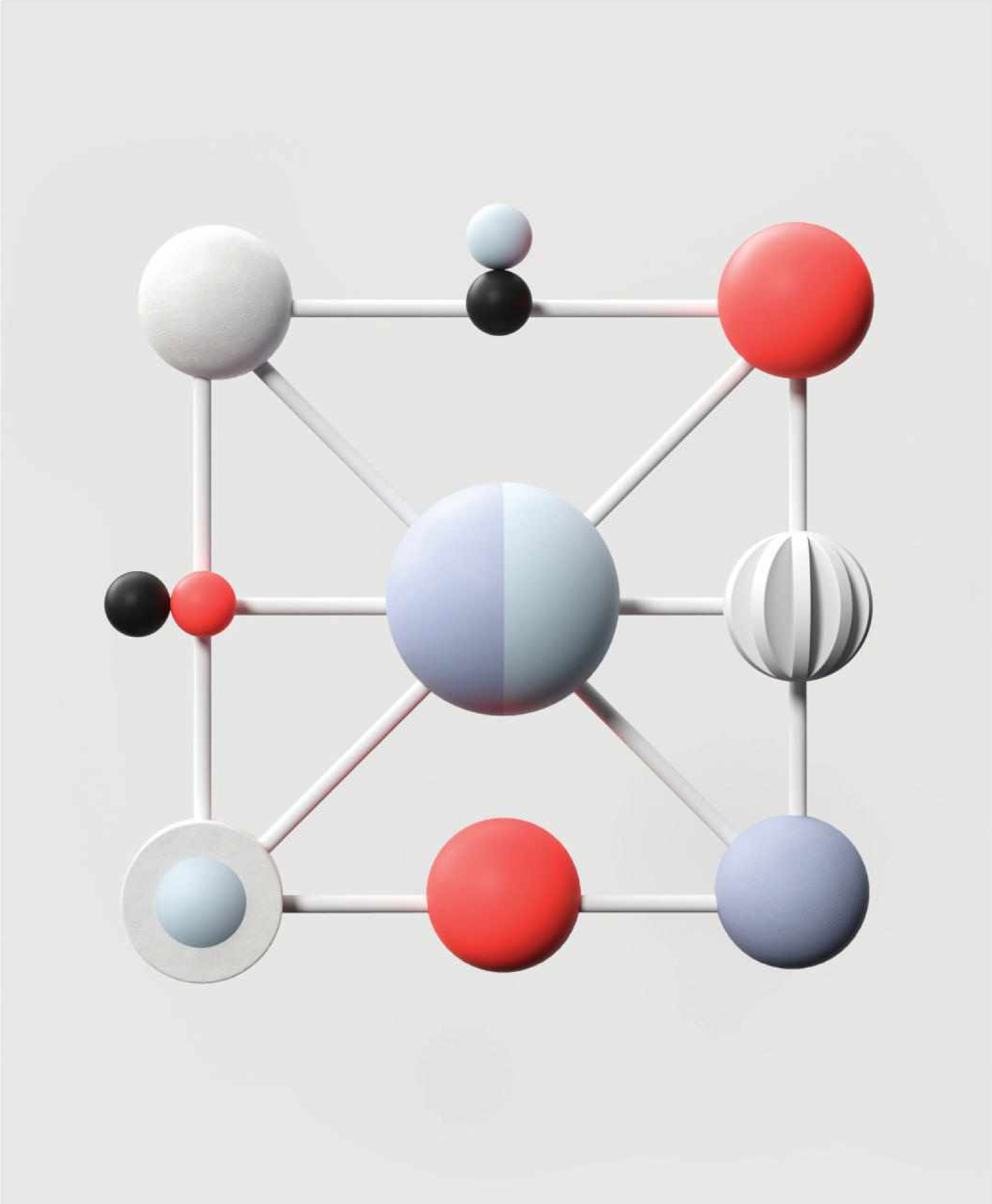
Spotlight

The Digitally Literate Organization

Illustrations by NÚRIA MADRID



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Spotlight

Democratizing *Transformation*

Give your entire workforce the capacity to become innovators.

OVER THE PAST decade, Novartis has invested heavily in digital transformation. As the Swiss pharmaceutical giant moved its technology infrastructure to the cloud and invested in data platforms and data integration, it recruited AI specialists and data scientists to build machine-learning models and deploy them throughout the firm. But even as the technical teams grew, managers from across the business—sales, supply chain, HR, finance, and marketing—weren't embracing the newly available information, nor were they thinking much about how data could enhance their teams' work. At the same time, the data scientists had little visibility into the business units and could not easily integrate data into day-to-day operations. As a result, the investments resulted in only occasional successes (in some aspects of the R&D process, for example) while many pilots and projects sputtered.

More recently, however, pilots targeting both R&D and marketing personalization started showing business value and captured the attention and imagination of some of Novartis's more creative business executives. They became increasingly excited about opportunities to deploy AI in various parts of the company and began to earnestly champion the efforts. (Disclosure: We have both worked with Novartis and other companies mentioned in this article in a variety of ways, including board membership, research, and consulting.) They realized that technologists and data scientists alone couldn't bring about the kind of wholesale innovation the business needed, so they began pairing data scientists with business employees who had insight into where improvements in efficiency and performance were needed.

Novartis also invested in training frontline business employees to use data themselves to drive innovation. A growing number of teams adopted agile methods to address all kinds of opportunities. The intensity and impact of transformation thus accelerated rapidly, driving a range of innovation initiatives, including digitally enabling sales and sales forecasting, reconceiving the order and replenishment system for health-care-services customers, and revamping prescription-fulfillment systems and processes.

The progress in digital transformation became invaluable as the company dealt with the initial chaos of the pandemic. Novartis business teams partnered with data scientists to devise models to manage supply-chain disruptions, predict shortages of critical supplies, and enable quick changes to product mix and pricing policies. They also developed analytics to identify patients who were at risk because they were putting off doctor visits. As the Covid crisis wore on, the value of AI became obvious to managers companywide.

Before this wave of AI adoption, Novartis's investments in technology consisted almost entirely of packaged enterprise applications, usually implemented by the IT department with the guidance of external consultants, vendors, or systems integrators. But to build companywide digital capability, under the leadership of then chief digital officer Bertrand Bodson, Novartis not only developed new capabilities in data science but also started to democratize access to data and technology well outside traditional tech silos. The company is now training employees at all levels and in all functions to identify and capitalize on opportunities for incorporating data and technology to improve their work. In 2021, the Novartis yearly AI summit was attended by thousands of employees.

The potential for employee-driven digital innovation is impossible to calculate, but according to the market research firm IDC's Worldwide IT Industry 2020 Predictions report, enterprises across the global economy will need to create some 500 million new digital solutions by 2023—more than the total number created over the past 40 years. This cannot be accomplished by small groups of technologists and data scientists walled off in organizational silos. It will require much larger and more-diverse groups of employees—executives, managers, and frontline workers—coming together to rethink how every aspect of the business should operate. Our research sheds light on how to do that.

The Elements of Tech Intensity

To enable transformation, companies must create synergy in three key areas:

Capabilities
- Organizational culture
- Training and development
- Low-code/no-code tools
- Agile teams
- Organizational architecture
- Citizen developers
- Product management

Technology
- Machine learning
- Deep learning
- DevOps pipelines
- Data encryption
- Real-time analytics

Architecture
- Data platform
- Horizontal integration and normalization
- Data documentation
- API strategy
- Experimentation and risk
- Data governance

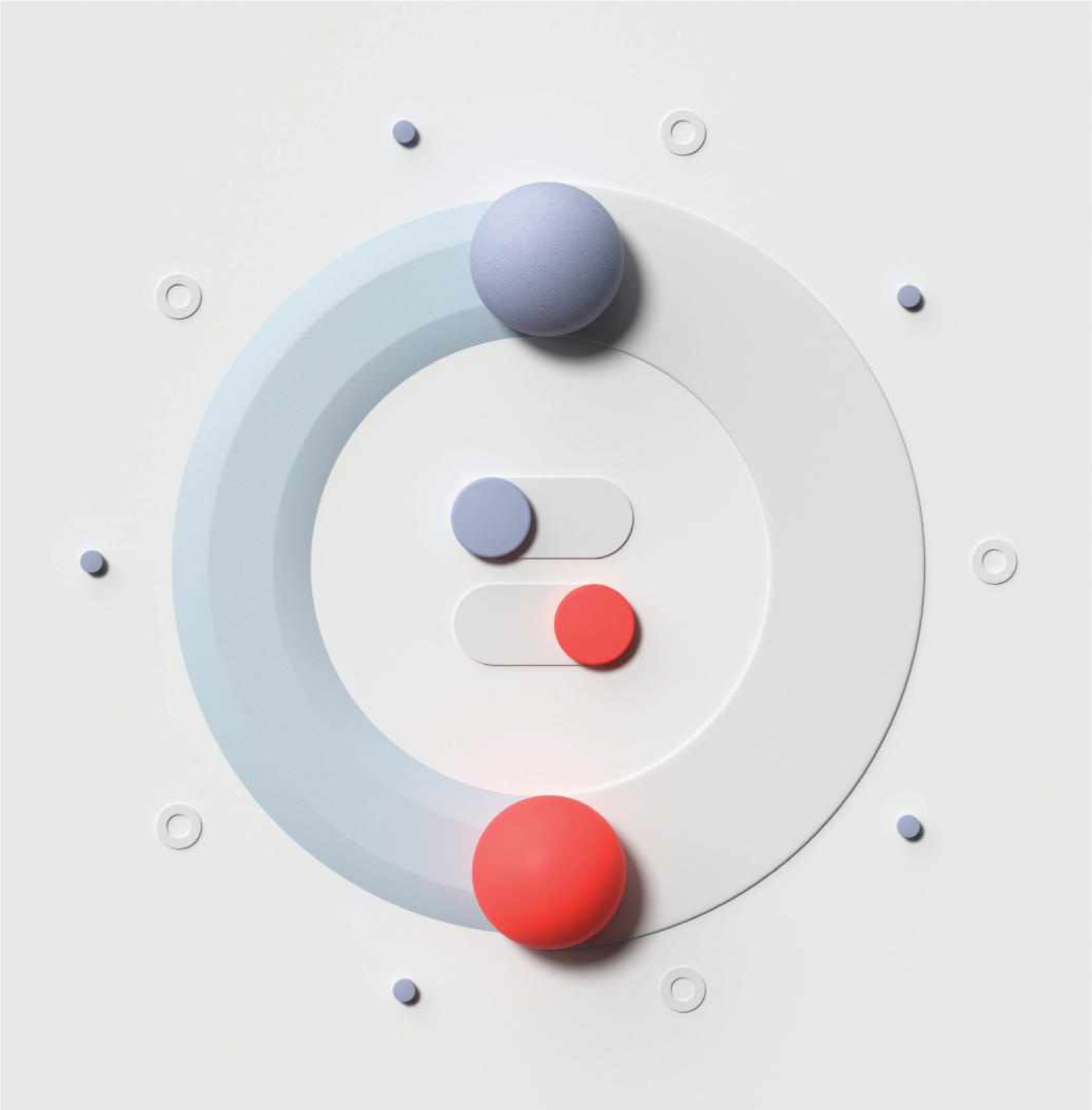
IDEA IN BRIEF

THE PROBLEM
Many companies struggle to reap the benefits of investments in digital transformation, while others see enormous gains. What do successful companies do differently?

THE JOURNEY
This article describes the five stages of digital transformation, from the traditional stage, where digital and technology are the province of the IT department, through to the platform stage, where a comprehensive software foundation enables the rapid deployment of AI-based applications.

THE IDEAL
The ideal is the native stage, whose hallmarks are an operating architecture designed to deploy AI at scale across a huge, distributed spectrum of applications; a core of experts; broadly accessible, easy-to-use tools; and investment in training and capability-building among large groups of businesspeople.

Digital transformation requires that executives, managers, and frontline employees work together to rethink how every aspect of the business should operate.



Companies underestimate the importance of getting employees to pull transformation into their functions rather than having IT groups push the changes out to the business.

The Success Drivers

When we started our research, we wanted to understand why many companies struggle to reap the benefits of investments in digital transformation while others see enormous gains. What do successful companies do differently?

We looked at 150 companies in manufacturing, health care, consumer products, financial services, aerospace, and pharma/biotech, including a representative sample of the largest firms in each sector. Some were failing to move the needle, but many had made dramatic progress. Perhaps surprisingly, we found that outcomes did not depend on the relative size of IT budgets. Nor were the success stories confined to "born digital" organizations. Legacy giants such as Unilever, Fidelity, and Starbucks (where one of us, Satya, is on the board)—not to mention Novartis—had managed to create a digital innovation mindset and culture.

Our research shows that to enable transformation at scale, companies must create synergy in three areas:

Capabilities. Successful transformation efforts require that companies develop digital and data skills in employees outside traditional technology functions. These capabilities alone, however, are not sufficient to deliver the full benefits of transformation; organizations must also invest in developing process agility and, more broadly, a culture that encourages widespread, frequent experimentation.

Technology. Of course, investment in the right technologies is important, especially in the elements of an AI stack: data platform technology, data engineering, machine-learning algorithms, and algorithm-deployment technology. Companies must ensure that the technology deployed is easy to use and accessible to the many nontechnical employees participating in innovation efforts.

Architecture. Investment in organizational and technical architecture is necessary to ensure that human capabilities and technology can work in synergy to drive innovation. That requires an architecture—for both technology and the organization—that supports the sharing, integration, and normalization of data (for example, making data definitions and characteristics consistent) across traditionally isolated silos. This is the only real, scalable way to assemble the necessary technological and data assets so that they are available to a distributed workforce.

Many large companies are making headway in each of these areas. But even leading companies tend to underestimate the importance of getting employees to pull transformation into their functions and their work rather than having central technology groups and consultants push the changes out to the business. As Eric von Hippel of MIT has advocated for many years, frontline users, who are closest to the use cases and best positioned to develop solutions that fit their needs, must take a central role, joining agile teams that dynamically coalesce and dissolve on the basis of business needs.

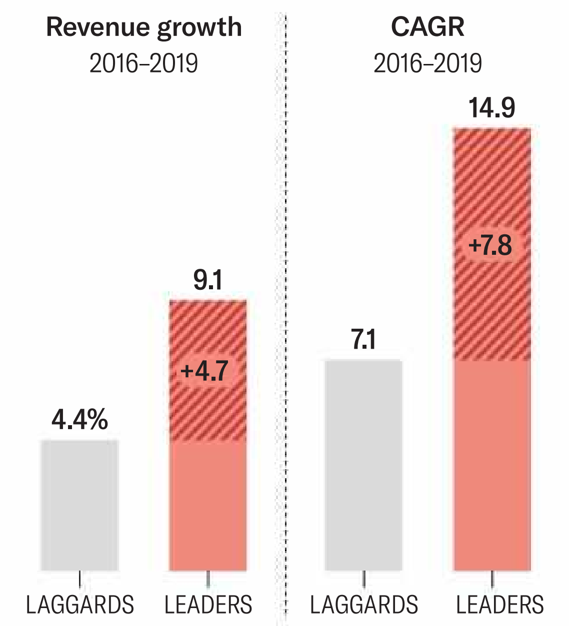
Building Tech Intensity

Our research unpacks how capabilities, technology, and architecture work together to build what we call *tech intensity*. Derived from the economics concept of intensive margin—how much a resource is utilized or applied—tech intensity refers to the extent to which employees put technology to use to drive digital innovation and achieve business outcomes. Our research found that companies that made good investments in technology and made tools accessible to a broad community of data- and tech-skilled employees achieved higher tech intensity—and superior performance. Companies that failed to develop tech- and data-related capabilities in their employees and offered only limited access to technology were left behind.

We ranked the tech intensity of the 150 firms in our study and found that

Digital Transformation Pays Off

We studied 150 companies in a range of industries and found that revenue growth and compound annual growth rate among the leaders (the top quartile) in tech intensity were more than double that of the laggards (the bottom quartile).

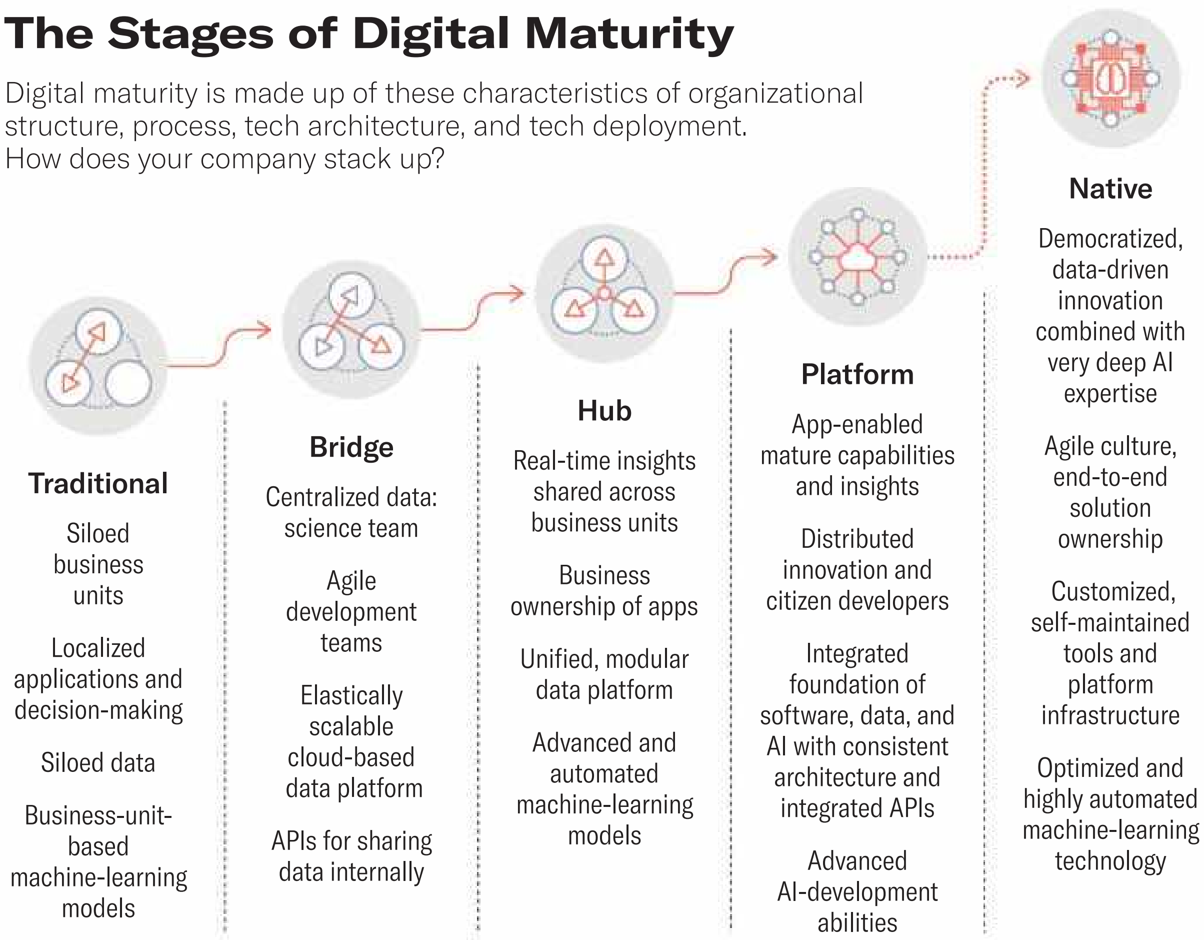


Source: Keystone

the top quartile of the sample grew their revenues more than twice as fast as the bottom quartile. (See the exhibit “Digital Transformation Pays Off.”) We also found that technology, capability, and architecture indices correlated with other measures of performance, from productivity and profits to growth in enterprise value. Using an econometric technique known as *instrumental variables,* we also found evidence that the relationship between tech intensity and performance was causal: That is, greater intensity (especially investments in technical and organizational architecture) powered higher revenue growth.

The Stages of Digital Maturity

Digital maturity is made up of these characteristics of organizational structure, process, tech architecture, and tech deployment. How does your company stack up?



Staging the Transformation

Our analysis confirms that just spending money on technology does not result in more growth or better performance; in fact, in some cases it can actually damage the business if it accentuates divisions and inconsistencies across groups. Instead, it is the architectural, managerial, and organizational approaches to transformation that best explain the substantial and enduring differences among firms. We found that companies typically progress through five stages on their transformation journey. (See the exhibit “The Stages of Digital Maturity.”)

Traditional model. Not surprisingly, many companies fit what we consider to be the traditional model of digital innovation, whereby digital and technology investments are the province of the IT department (or other technical specialist groups) and impact is scattered across groups, mostly in inconsistent ways. IT works with business units to fund projects and manage implementation—say, for the deployment of an enterprise application or a data platform technology. The projects and their implementations are customized to the specific requirements of the individual silos, business units, or functions. The result is that over time, the technology and data infrastructure reflect the quirks of individual groups, without any consistency and connectivity. This sort of disjointed approach makes it virtually impossible to share, scale, or distribute innovation efforts across the organization.

Many businesses in the traditional model still spend a great deal of money on information technology. Consider a financial services firm we studied, whose tech and analytics budget is among the top in its industry, in both absolute and relative terms. The company has spent heavily on state-of-the-art data-platform technology and hired thousands of IT specialists and data scientists, who sit isolated in a separate IT group, while few (if any) employees on the business side are involved in the organization’s digital innovation efforts. The company thus lacks the architecture and capabilities required to foster any intensity in tech adoption. Not surprisingly, the firm’s IT and data sciences efforts have stalled, and business impact has been minimal.

A telltale sign that a company is in the traditional stage is that perceptions of impact among technology and business employees are dramatically different. The former perceive impact to

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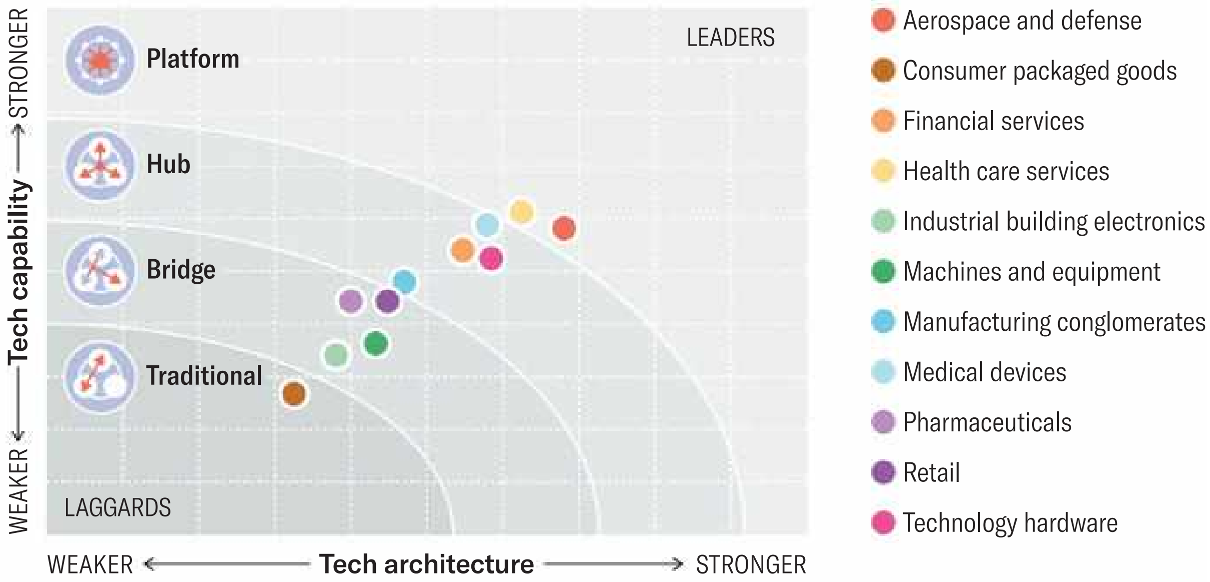
be high (as measured by the effort they put into their work), while the latter measure it as much lower (according to how their everyday activities have benefited).

Bridge model. To break free of the traditional constraints of silos—organizational and infrastructural—companies typically start by launching pilots that bridge previously separate groups and developing shareable data and technology assets to enable new innovations. They might first focus on specific functional opportunities such as optimizing advertising, manufacturing, or supply-chain capabilities. These companies are piloting not only technology but also a fundamentally different model of innovation in which executives, managers, and frontline workers from the business side work in collaboration with IT and data scientists. Victor Bulto, Novartis's head of U.S. pharmaceuticals, was instrumental in launching early pilots (focusing, for example, on identifying at-risk patients) and served as a champion for many initiatives as the organization moved through the bridge stage. Lori Beer, JPMorgan Chase's global CIO, likes to talk about the demonstrated impact of piloting AI to simplify expense reporting and approval—a process-improvement pilot that won over many employees.

Hubs. As more and more pilots demonstrate the success of the new approach, organizations form data and capability hubs and gradually develop the capacity to link and engage additional functions and business units in pursuit of opportunities for transformation. As they progress down this path, leaders begin to realize that

Digital Maturity by Industry

We looked at 150 companies in a range of industries and plotted the average levels of technology capability and technology architecture for each industry. Companies in consumer packaged goods, for example, tended to be at the early stage of the transformation journey; aerospace and health care firms were much more advanced.



Source: Keystone

the bottleneck in innovation has shifted from investments in technology to investments in the workforce. The limiting factor at this stage is the number of business employees with the capability—the know-how and the access—to drive digital innovation. Companies thus need to invest in coaching and training a much larger community of employees.

Fidelity strives to develop what it calls *digital athletes*. It began to build hubs by creating centralized data assets (a companywide data lake, for example); now it is scaling up training for thousands of business employees, giving them the capacity to deploy digitally enabled solutions across the entire business. Digitally savvy investment specialists and tax experts, for example, are working closely with data scientists and technologists to create innovative solutions with a special focus on personalization and tailored customer impact. They've also created an app aimed at onboarding and engaging younger investors and another app for delivering AI-powered recommendations to Fidelity financial advisers, to name just a few examples.

Starbucks, too, is focused not only on technology and architecture but also on developing broad-based, agile innovation skills in its employees to power its hubs. CEO Kevin Johnson explains, "We've gone from large teams working in silos to smaller, cross-functional teams [everywhere], and from evaluating every idea as pass-fail to rapid iteration." Starbucks is now a digital innovation powerhouse, with sophisticated customer apps enabling

> Train and coach your employees to understand the potential of technology and data, and release the innovators within your workforce.

remote ordering, loyalty programs, and payment systems along with internal systems enabling AI-based labor allocation and inventory management.

Platform model. As companies enter the platform stage, data hubs merge into a comprehensive software foundation that enables the rapid deployment of AI-based applications. Firms focus on building sophisticated data-engineering capabilities and encouraging the reuse and integration of machine-learning models. Analytics-based prediction models are applied across the business, with an increasing focus on the automation of basic operational tasks. Organizations begin to function a bit more like software companies, developing comprehensive capabilities that enable product and program management and rapid experimentation.

Over the past five years, Microsoft has gone through almost every stage of this journey. Years ago, we were just as siloed as most companies, with each product-based organization segregating its own data, software, and capabilities. As we connected and normalized data from different functions and product groups, we were able to deploy integrated solutions in areas ranging from customer service to supply-chain management.

We integrated all our data in a companywide data lake, and we built what we call a *business process platform,* which provides software and analytics components that teams use to enable innovation in areas ranging from Xbox manufacturing to managing advertising spend. We also invested in training programs for nontechnical employees, cultivating data-centric and machine-learning capabilities throughout the organization.

Native model. The most successful companies among the 150 in our study have deployed an entirely different type of operating architecture, centered on integrated data assets and software libraries and designed to deploy AI at scale across a huge, distributed spectrum of applications. Its hallmarks are a core of experts; broadly accessible, easy-to-use tools; and investment in training and capability-building among large groups of businesspeople. These companies are approaching the capacity of digital natives such as Airbnb and Uber, which were purpose-built to scale companywide analytics and software-based innovation. Airbnb and Uber are certainly not perfect, but they come close to the native ideal.

At Microsoft, we still have a lot to learn, but in some parts of the organization we are starting to approach the native model. As is common in any enterprise, the progress has not been uniform. Different groups have achieved different levels of capability, but the results overall are encouraging, as we see increasingly innovative solutions to internal and customer-facing problems. Most critically, our companywide approach to understanding, protecting, and working with data has progressed by light years.

The Imperative for Leaders

The mandate for digital transformation creates a leadership imperative: Embrace transformation, and work to sustain it. Articulate a clear strategy and communicate it relentlessly. Establish an organizational architecture to evolve into as you make the myriad daily decisions that define your technology strategy. Deploy a real governance process to track the many technology projects underway, and coordinate and integrate them whenever possible. Champion agility in all business initiatives you touch and influence. And finally, break free of tradition. Train and coach your employees to understand the potential of technology and data, and release the innovators within your workforce.

This mandate extends to technology providers. Despite much investment, technologies are still too complex and are often too hard to use and deploy. We need tools and technology that make driving transformation intuitive for frontline workers while keeping data secure. Let's not forget that until recently many of us were relying on specialists in Fortran and Cobol to model business problems and even to perform basic mathematical operations. Spreadsheets brought about a revolution in mathematical modeling; we need technology providers to bring the same revolution to AI and make using a machine-learning application as easy as creating a pivot table.

Momentum is growing. But we must sustain the efforts to ensure that companies of all stripes make it across the digital divide.

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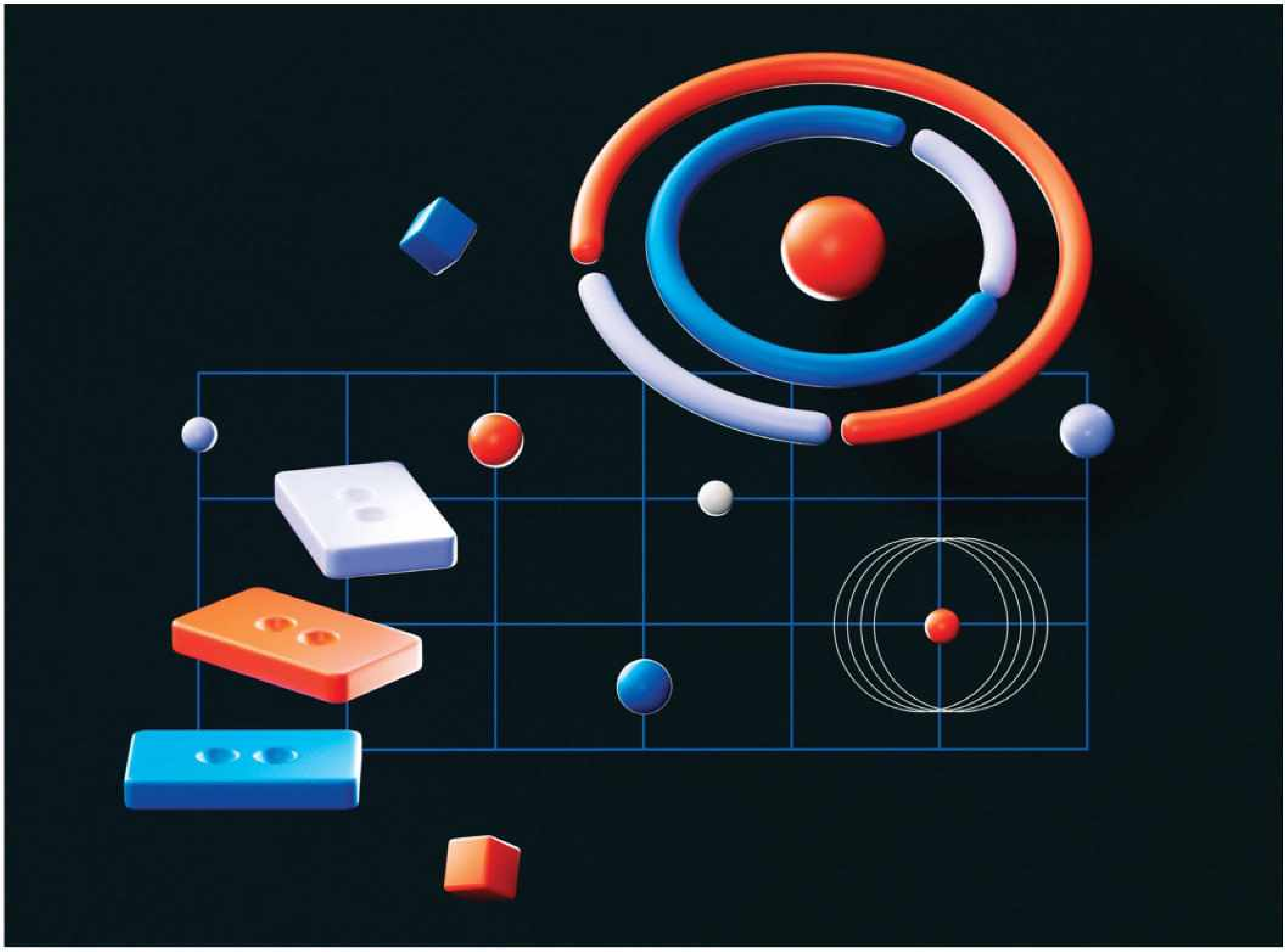

Developing a Digital *Mindset*

How to lead your organization into the age of data, algorithms, and AI

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WHEN THIERRY BRETON took over as CEO of the French IT services company Atos, in 2008, he knew that a massive and immediate digital transformation was necessary. Annual revenue had increased nearly 6% during the Great Recession, to $6.2 billion, but Atos wasn't growing as fast as its competitors were. The company suffered from siloed business and functional groups, had limited pooling of global resources, and needed more innovation throughout the company. Digital transformation was the only way forward.

But what would that look like for an IT giant? Breton began by scaling and globalizing the company, which provides online transactional services, systems integration, cybersecurity, and more. He doubled the size of the workforce to 100,000 people, hoping to fend off the competitors all around him, including digital-born start-ups from Silicon Valley, India, and China. Breton also laid out a plan to integrate AI and other data-driven technology into company processes and upskill the expanding workforce.

The three-year digital-transformation plan depended on creating a culture of continuous learning and required that employees develop what we call a *digital mindset*. Breton and his team debated options for how to approach those goals. Some believed a robust training program was the only way forward; others were convinced that people learn best on the job. They eventually created the Digital Transformation Factory upskilling certification program. The initial goal was to train 35,000 technical and nontechnical employees in digital technologies and artificial intelligence.

Notably, the upskilling program was voluntary. Breton's team launched an internal marketing campaign to encourage people to learn and get certified. It also instituted a peer and management nomination system to entice employees to join the program and offered rewards for achieving benchmarks in certification. The reasoning was that if employees got certified voluntarily, they would be more likely to internalize the new digital skills and modify their work behaviors accordingly. The learning programs accommodated everyone from data scientists and highly skilled engineers to people in traditionally nontechnical functions, such as sales and marketing.

The results exceeded expectations. Within three years, more than 70,000 people completed their digital certification, in large part because employees understood that growth at the company required digital fluency. Atos was clearly on the right track. Its revenue had reached close to $13 billion by the time Breton left the company, in 2019, to become France's European Commissioner.

What Is a Digital Mindset?

Learning new technological skills is essential for digital transformation. But it is not enough. Employees must be motivated to use their skills to create new opportunities. They need a digital mindset. Psychologists describe mindset as a way of thinking and orienting to the world that shapes how we perceive, feel, and act. A digital mindset is a set of attitudes and behaviors that enable people and organizations to see how data, algorithms, and AI open up new possibilities and to chart a path for success in a business landscape increasingly dominated by data-intensive and intelligent technologies.

Developing a digital mindset takes work, but it's worth the effort. Our experience shows that employees who do so are more successful in their jobs and have higher satisfaction at work, they are more likely to get promoted, and they develop useful skills that are portable should they decide to change jobs. Leaders who have a digital mindset are better able to set their organizations up for success and to build a resilient workforce. And companies that have one react faster to shifts in the market and are well positioned to take advantage of new business opportunities.

Like any other change initiative, digital transformation often encounters resistance, and early missteps are inevitable. In our experience, companies do best when they focus on two critical areas: (1) preparing people for a new digital organizational culture and (2) designing and aligning systems and processes. In this article, we lay out the basic principles of this enormous undertaking, drawing lessons from Philips, Moderna, and Unilever. These companies offer a road map for developing digital mindsets in existing talent pools and aligning systems and processes to capitalize on digital proficiency.

Building a Continuous-Learning Culture

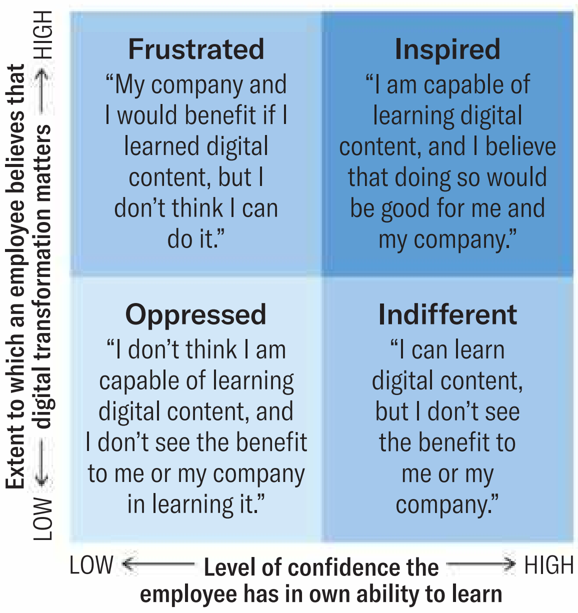
The health services company Philips recently transitioned its core competency from supplying health products to providing digital solutions. To bring employees along, it needed to create a continuous-learning environment. Philips partnered with Cornerstone OnDemand, a cloud-based learning and HR software provider, to build an AI-powered infrastructure that adapts to learners' specific needs and pace. Employees can share "playlists" of tailored lessons with colleagues, just as they share playlists on music-streaming services. The platform's social media function facilitates connection between new employees and more-experienced members who can serve as mentors, fostering more-organic peer-mentor relationships than formal matching programs do.

Philips's leaders, who serve as the continuous-learning program's teachers, have emphasized the need for not only new knowledge but a cultural shift. They assume responsibility for their team members' futures, not just for managing work tasks, and they share their expertise, knowledge, and passion during training sessions. The company collects data on how employees are using the platform, measures the correlation between continuous learning and performance, and examines how various tools help employees learn, in expected or unexpected ways.

The ability to develop a digital mindset depends on the extent to which employees internalize the undertaking. Thinking about how they will interact with and use new tools and how those tools will help them attain superior performance is essential to a successful digital transformation.

The Adoption Matrix

Digital transformation sparks a range of responses in employees.



Accelerating Adoption

Digital change is often radical, and it involves shifting shared values, norms, attitudes, and behaviors. That's a tall order, so it is helpful to kick things off with a bold stroke: an act that commands attention and prompts everyone in the company to understand that a new direction is required. (See "What Inexperienced Leaders Get Wrong [Hint: Management]" on HBR.org.) Examples include doing a major reorg, making an acquisition, reallocating resources, hiring a digital transformation czar who reports to the CEO, and announcing that a legacy system is being phased out.

While signaling the new order creates momentum, it isn't enough. A bold stroke must be followed by a long march, one that begins with assessing how employees feel about the plans for digital transformation. Some may be apprehensive about the unknown; others may worry about their own capacity to learn and apply the new technology and skills to their jobs. These anxieties will affect technical and nontechnical roles. Employees may also be dubious about whether the digital transformation matters—to the company and to their jobs.

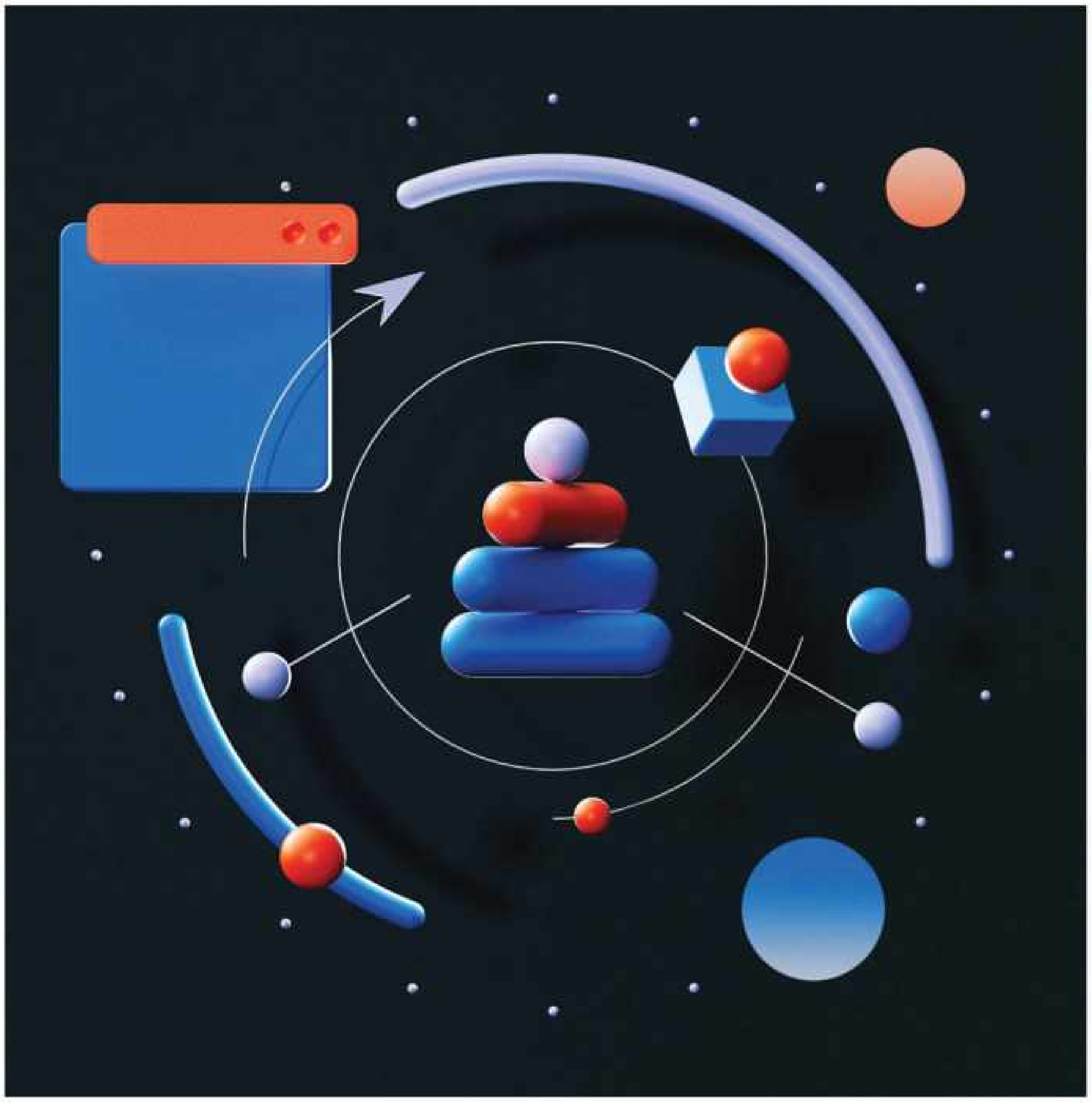
When implementing radical change, managers must carefully weigh these two key dimensions: buy-in (the degree to which people believe that the change will produce benefits for them and the organization) and capacity to learn (the extent to which people are confident that they can gain sufficient literacy to pass muster). The highest levels of adoption occur when employees are motivated to develop competence because they fully buy into the transformation strategy and feel capable of helping make it a reality.

In a digital transformation, the two dimensions combine to produce the four quadrants of a matrix of responses: oppressed, frustrated, indifferent, and inspired. (See "The Adoption Matrix.") In the best-case scenario, people will be in the top right quadrant, inspired by the change and believing that they have the capacity to learn digital content. Managers should assess which quadrant each of their team members falls into and then work to move individuals from one to another as needed.

Promoting buy-in. To help engage people who don't see the value in gaining digital competencies (those in the bottom quadrants), leaders must increase messaging that stresses digital transformation as a critical frontier for the company. They should launch an internal marketing campaign to help employees imagine the potential of a company powered by digital technology. Managers should encourage their team members to view themselves as important contributors to the digital organization.

Promoting confidence. After establishing buy-in, managers should focus on boosting the confidence of team members in the two left quadrants. We have found that the more experience people have with digital technologies—whether through education or employment—the more confidence they gain. Sharing stories also helps: People

Employees who develop digital mindsets are more successful in their jobs, have higher satisfaction at work, and are more likely to get promoted.



can build confidence vicariously, by learning about the experiences of peers, managers, and others. With encouragement and reinforcement from company leaders and direct managers, employees can begin to believe in their own capabilities. (See the sidebar "The Elements of a Successful Employee-Training Program.")

It may seem that it would be more efficient to simply hire people who already have the technical skills needed to bring a workforce into the digital age. But as most companies know, the war for talent is fierce: Hiring enough digital talent to meet demand is nearly impossible in the current market. As a result, recruitment must be supplemented with an expansive effort to upskill existing talent.

Leaders should identify influencers in their ranks who have a digital mindset and recruit them to champion the transformation and become role models for those who are reluctant. Influencers can also be very helpful in identifying areas of concern among employees and ideas for improvements. They are likely to understand what kind of messaging will resonate with employees. Holding training sessions about the digital transformation and communicating new targets is also important.

Aligning Digital Systems

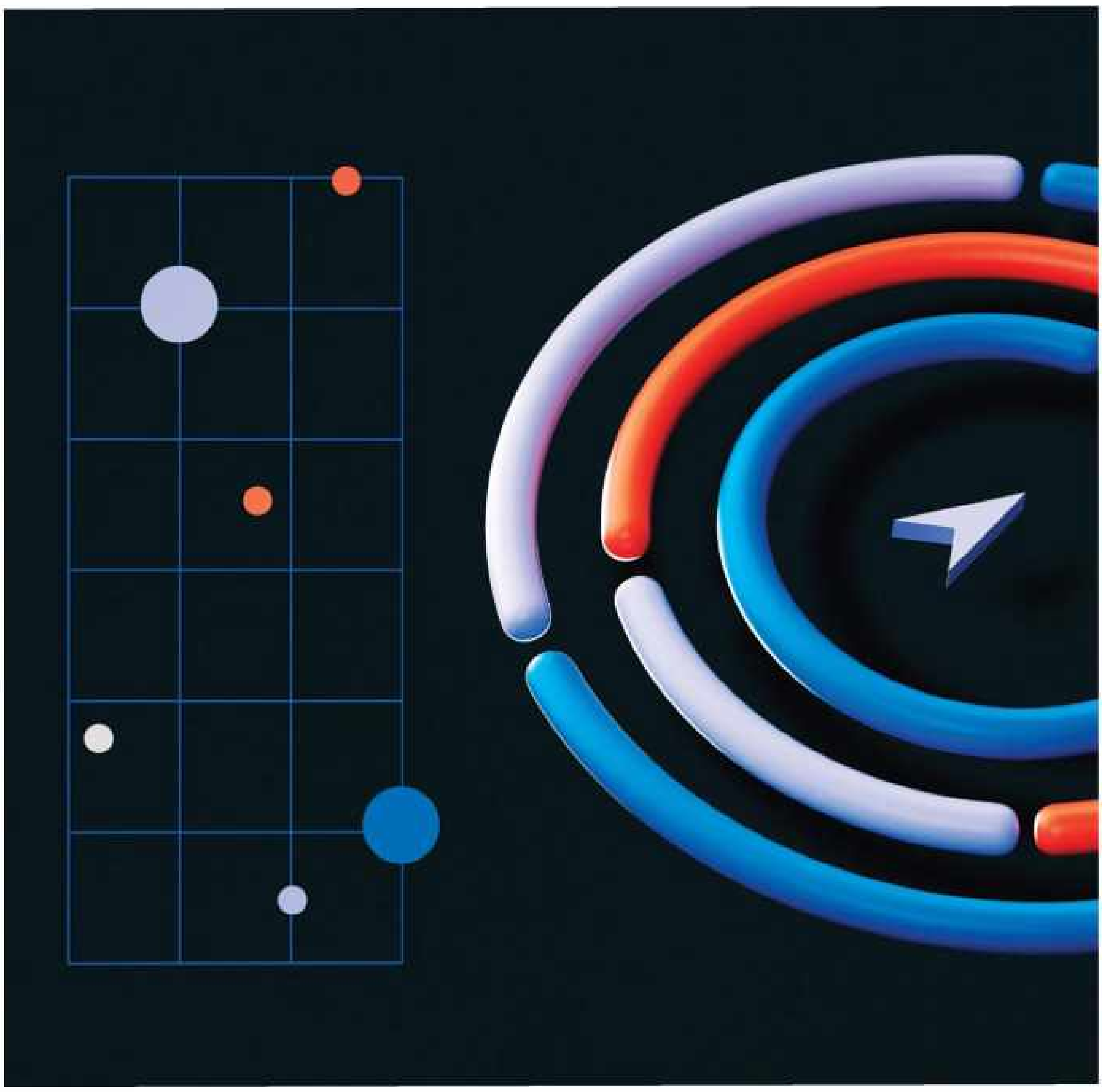
It is critical that organizational leaders understand how employees will deploy digital tools so that they can build technology ecosystems and processes that foster a digital mindset and accelerate digital transformation.

Research by Harvard Business School professors Marco Iansiti and Karim Lakhani and colleagues identifies three of the main components of Moderna, the digital-born biotech and pharmaceutical company. The first, foundational layer is enormous access to data, which is the source of the company's value in developing vaccines and other therapeutics. The second is its reliance on cloud computing—a not only cheaper but faster and more agile solution than in-house servers. The third is its capacity for building AI algorithms to perform R&D processes with an accuracy and speed that is impossible to achieve manually. As Moderna's cofounder and CEO Stéphane Bancel told the scholars, Moderna is a "tech company that happens to do biology."

Historically, large pharmaceutical companies have operated in globally distributed, siloed units, but Moderna has a fully integrated structure in which data flows freely so that different teams can work together in real time. As Juan Andres, the company's chief technical operations and quality officer, has pointed out, "What's more important than having sophisticated digital tools or algorithms is integration at all levels. The way things come together is what matters about technology, not the technology itself."

In January 2020, when Moderna faced the urgent task of developing a vaccine for Covid-19, it was able to accelerate the process because integration at all levels was already in place. Bancel had hired Marcello Damiani five years earlier to oversee digital and operational excellence, and Bancel was careful not to separate the two roles. "Enabling Marcello to design the processes was key," he explains. "Digitization only makes sense once the processes are done. If you have crappy analog processes, you'll get crappy digital processes." Fully integrated systems and processes allowed Moderna employees to deploy existing digital solutions for the vaccine and build many others in-house, either designing algorithms from scratch or tweaking existing ones to perform deeper and more-specialized analyses. Only a few months after the Covid-19 outbreak, Moderna had developed some 20 algorithms for vaccine and therapeutic development and was working on many others.

Unilever, the consumer goods giant, has also adapted its sprawling global business for the digital age. For this manufacturer and retailer of household staples—more than 400 brands sold in 190 countries—success is a delicate balancing act between the specificities of local markets and the broad scale of global operations. The solution was agile teams, which could focus on customizing products to the "last mile" while simultaneously aligning their work



across multiple countries using the company's digital capacities. Rahul Welde, Unilever's executive vice president for digital transformation and a 30-year veteran of the company, designed an agile-team structure that allowed members to remain globally distributed while making strategic use of data for tailored initiatives within rapidly changing local markets.

Under Welde's leadership, Unilever formed 300 10-person agile teams that were remote and global and could operate at scale. According to Welde, the strategy had three parts. The first was using enabling technology and tools, which could reduce global-local divides. With digital platforms, brands could engage directly with customers in local markets on a vastly larger scale. The second was redesigning existing processes to adapt to new technology and tools. The third was about making sure that people had access to the technology and both the skills and the motivation to use it.

Who Selects Digital Tools?

Managers and business leaders must be heavily involved in selecting and implementing digital tools. To do that, they must understand what IT departments today can and cannot do. Historically technology groups have been well equipped to handle large, enterprisewide implementations of software and to make sure that the software undergirding a company's operations is maintained and works the way it should. That remains a key function of IT for implementations of bespoke tools or ERP systems. However, most of the technologies that companies adopt to enable digital transformation are cloud-based (SaaS). Teams can simply buy

> A leader's task is not simply to adapt; it is to be adaptive. Digital transformation is not a goal that one achieves; it is the means to achieve one's goals.

The Elements of a Successful Employee-Training Program

Continuous learning marks a new paradigm for education and career growth: The days when employees had one job and a fixed skill set for a whole career are gone. Companies that successfully upskill their workforce follow six practices.

1. Set a companywide goal for training.

2. Design learning opportunities that include all functional roles.

3. Prioritize virtual delivery, making learning scalable and accessible to everyone.

4. Motivate people to learn through campaigns, awards, and incentives.

5. Make sure managers understand the offerings so that they can effectively guide and inspire employees.

6. Encourage employees to participate in projects with digital components and hands-on learning opportunities.

licenses, download the software, and get started without ever looping in IT.

Whereas IT is accustomed to managing support applications, business leaders are best suited to the task of defining new roles and routines—and effectively reshaping organizational culture and goals. They should begin by identifying which local activities will most effectively drive larger organizational goals, as this will inform the choice of digital tools and the direction of the transformation. As technology-driven process changes lead to new roles and responsibilities, new collaborative networks will open within the organization. These networks are the real positive drivers for the organization.

The company must continually gather data to monitor the transformation effort and assess whether employee behaviors are helping or hindering what we call the *work digitization process*. Leaders should study how information flows within the organization and remove institutional obstacles that might prevent employees from adopting the new process.

Change as a Constant

According to change management theory, organizations move from a current state to a transitional state and then on to a future state. The transitional state is typically considered to be a fixed period of time in which an organization shifts from familiar structures, processes, and cultural norms to new ones. People understandably experience strong emotions during the transition, because it requires them to make sense of new perspectives and ways of behaving. During this temporary state of ambiguity, everyone's task is to negotiate between the organization's past and its future.

In a digitally driven world, however, there is no end point to the transitional phase: Digital tools change constantly and rapidly, as do the knowledge and skills necessary to use them. Organizational structures must be continually tuned to make use of new data insights, and leaders must keep working to bring employees along as the organization evolves.

Reconceiving of change as a constant process of transitioning rather than an activity that occurs between states helped Thierry Breton lead a successful digital transformation at Atos. It may be surprising that an IT company needed help with its own digital transformation, but that just underscores our point about how essential it is to cultivate a digital mindset. Just because employees have mastered one technology doesn't mean they are ready to adapt to the next one. Leaders need to view digital change as a state of constant transition that requires everyone to embrace the dynamism and uncertainty of permanent instability.

DIGITAL TECHNOLOGY AND its impact on organizational structures, job roles, people's competencies, and customer needs is ever changing. A leader's task is not simply to adapt; it is to be adaptive. Digital transformation is not a goal that one achieves; it is the means to achieve one's unique goals. With a digital mindset, employees across the organization are equipped to seize the opportunities our dynamic world presents.

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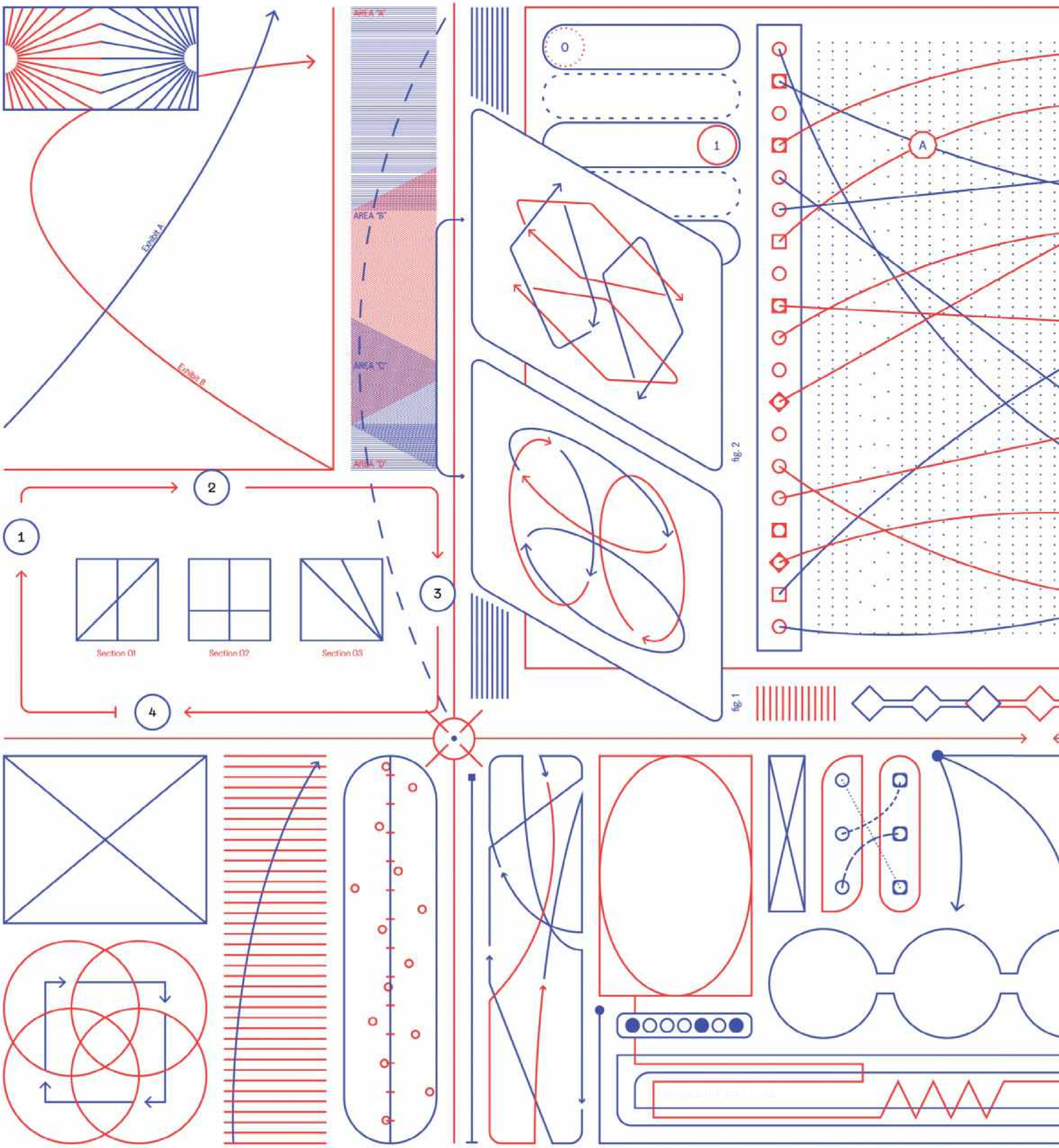
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Spotlight

The Next Great Digital *Advantage*

Smart businesses are using datagraphs to reveal unique solutions to customer problems.

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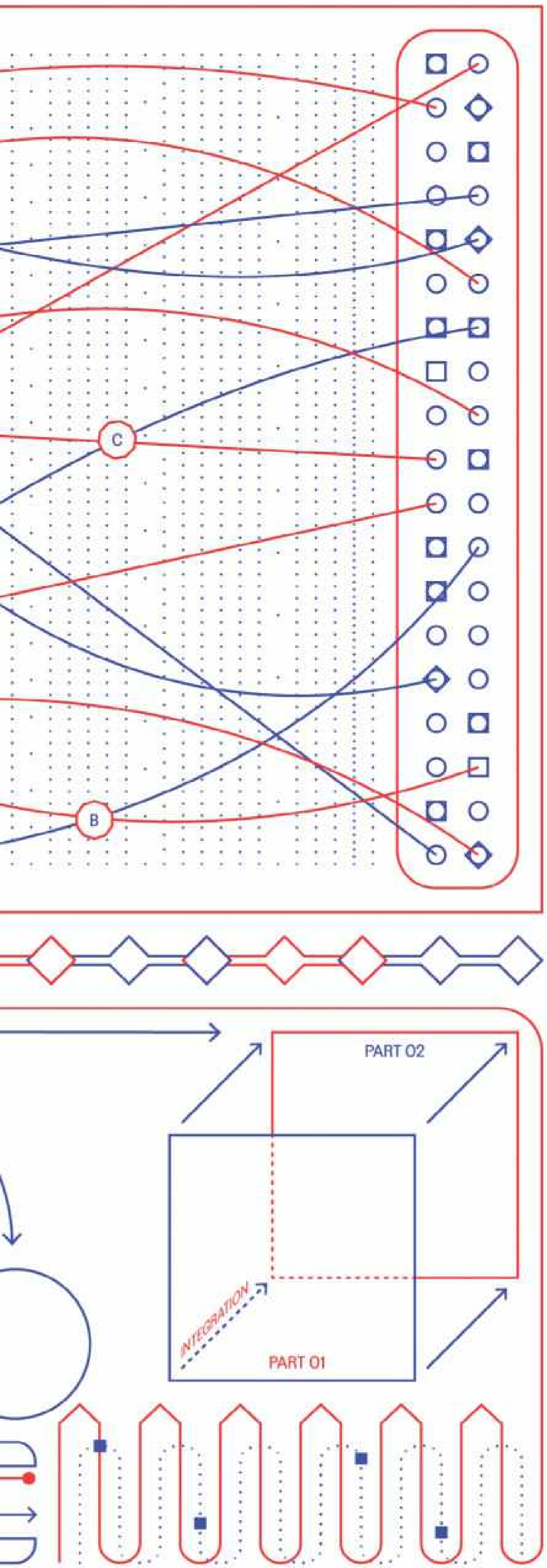


OF THE 4,000 products Amazon sells every minute, approximately 50% are presented to customers by its personalized recommendation engine. When you visit the site, its algorithms select an assortment of products from about 353 million items and arrange them for you according to what they predict you will want at that precise moment. These recommendations are powered by Amazon's ever-evolving purchase graph, which is a digital representation of real-world "entities"—anything about which it stores information, such as customers, products, purchases, events, and places—and the relationships and interrelationships among them. Amazon's purchase graph connects purchase history with browsing data on the site, viewing data on Prime Video, listening data on Amazon Music, and data from Alexa-enabled devices. Its algorithms use collaborative filtering—incorporating factors such as diversity (how dissimilar the recommended items are); serendipity (how

Illustrations by ARTEM MATYUSHKIN

Datagraphs capture how people work, play, learn, socialize, transact, travel, and do any other activity that can be associated with commerce.

surprising they are); and novelty (how new they are)—to generate some of the most sophisticated recommendations on the planet. Thanks to its rich data and industry-leading personalization, Amazon now owns 40% of the U.S. e-commerce market; its closest rival, Walmart, has a market share of only 7%.

To compete with Amazon, in April 2021 Google announced its Shopping Graph, an AI-enhanced model that recommends products to users as they search. More than a billion people research products on Google each day, and Shopping Graph connects them with more than 24 billion listings from millions of merchants across the web. It builds on Google's unparalleled Knowledge Graph, which captures information about the entities in its vast network and the relationships among them, including structured and unstructured data from Android, voice and image search, Chrome browser extensions, Google Assistant, Gmail, Photos, Maps, YouTube, Google Cloud, and Google Pay. With its Shopping Graph—which lets 1.7 million merchants feature relevant listings across Google using simple but interlinked tools—Google is ready to meet Amazon's challenge.

Datagraphs like Amazon's and Google's rely on product-in-use data—that is, data on the behavior of customers as they use a platform or a product—to capture the connections, relationships, and interrelationships between a company and its customers. The datagraph concept is inspired by social network and graph theory, wherein a social graph is defined as a representation of the interconnections among individuals, depicted as nodes, and the relationships among them—with friends, colleagues, supervisors, and so on—represented as links. The concept derives from the work of the social psychologist Stanley Milgram, and over the past two decades, it has provided a useful lens for analyzing the structure and dynamics of organizations, industries, markets, and societies. Facebook popularized the digital social graph in 2007 when it introduced Facebook Platform, a tool that allowed developers to build applications that were integrated into the site's information flow and connections of relationships.

Leading technology companies are using datagraphs to personalize customer recommendations, update products, optimize advertising, and more. The most successful examples—which include Amazon's purchase graph, Google's search graph, Facebook's social graph, Netflix's movie graph, Spotify's music graph, Airbnb's travel graph, Uber's mobility graph, and LinkedIn's professional graph—leverage the ongoing collection of customer engagement data, coupled with proprietary algorithms, to outcompete rivals in every way, from product creation to user experience.

This article discusses how companies can learn from the best practices of datagraph leaders to gain new competitive advantage.

Data Network Effects

To understand datagraphs, we first need to understand *data network effects,* which occur when data generated by users as they engage with a product or service makes it more valuable for other users. Unlike direct network effects, in which the value of a service grows as additional users join (as with Facebook or LinkedIn), data network effects do not require increasing numbers of users to enhance the value of the network. Instead, the continued engagement of current users generates broader and deeper product-in-use data, which allows algorithms to generate ever-improving results. For example, every one of Google's 2 trillion annual searches helps the company enrich its Knowledge Graph and improve its search engine, which generates better and better search results for users. By contrast, if users stop engaging on the platform, it becomes stale and less useful.

Datagraphs are not static; they do not reflect information at a snapshot in time. They are dynamic, reflecting what data scientists refer to as *data in motion*. That's partly why it is impossible to manually draw a datagraph. Technology is needed to gather and interpret in real time the data on the millions of units of a company's products that consumers worldwide may be engaging with at any given moment.

Datagraph Success Factors

Datagraph leaders gather customer behavioral data and quickly incorporate what they learn to improve every aspect of their products and services. They constantly refine how they classify and label product data and uncover relationships among entities so that algorithms can better group offerings for personalized recommendations. And they continually update their algorithms so that the personalized recommendations are

Spotlight

A New View of Competitive Advantage

Datagraphs are redefining how companies win.

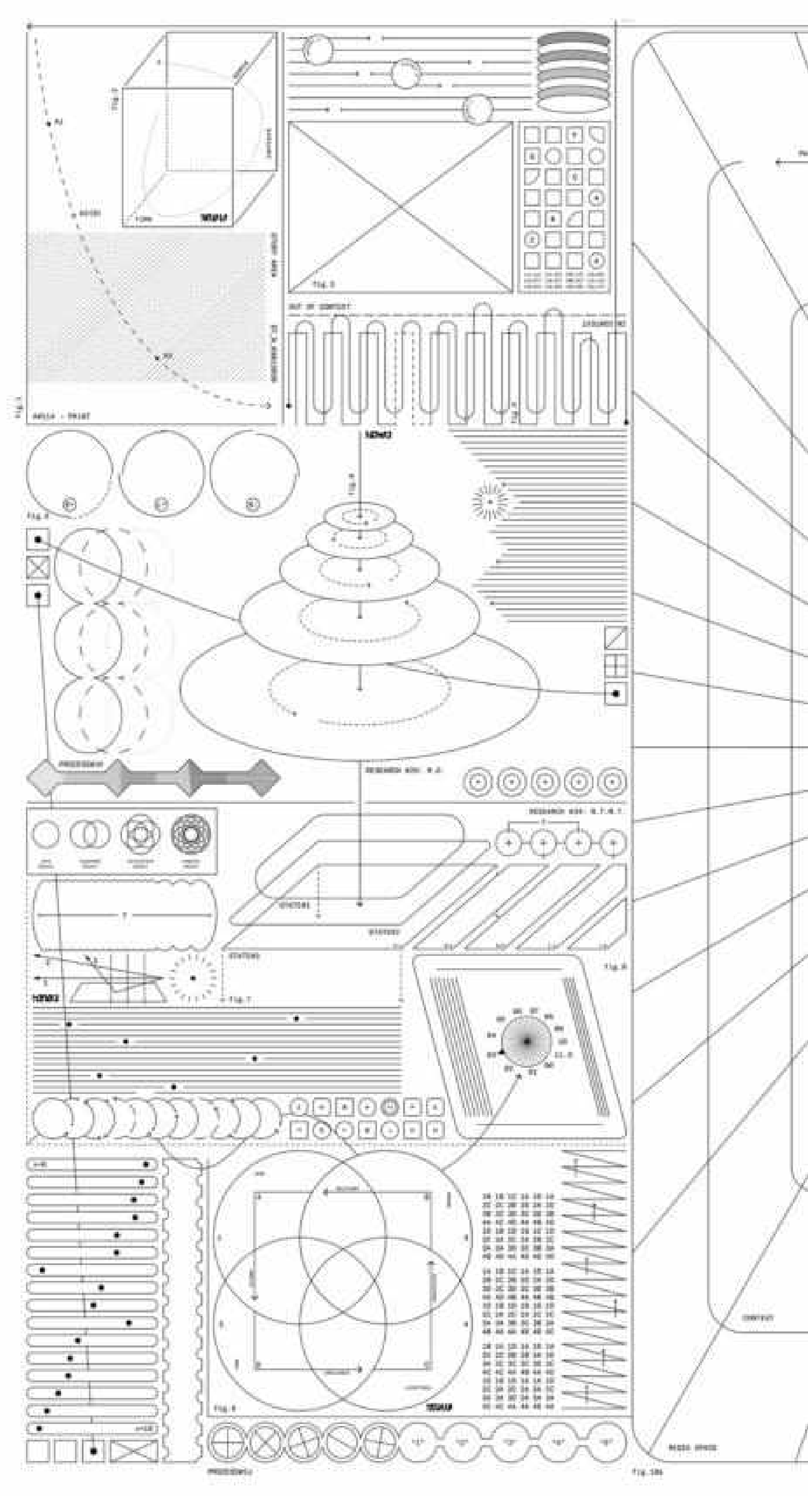
TRADITIONAL ADVANTAGES	ADVANTAGES FROM DATAGRAPHS
Scale advantage comes from physical assets	Scale advantage comes from product-in-use data
Scope expansion is based on product-market extensions	Scope expansion comes from datagraph and analytics competencies
Advantage comes from direct and indirect network effects	Advantage comes from data network effects along with direct and indirect network effects
Data enhances operational efficiency	Data provides real-time insights into customer behavior and needs
Data is stored as independent records in separate functional databases	Data is stored in integrated graph-based databases
Analytics are used to improve operations and marketing effectiveness	Analytics are used to build competitive differentiation
Firms design and deliver products and services	Firms solve customer problems with unique solutions derived from digital learning

based on the most current and relevant data, which helps improve and prolong customer engagement. Let's take a look at the key behaviors of companies that use datagraphs successfully.

They learn at scale and speed. Datagraphs capture how individuals live, work, play, learn, listen, socialize, watch, transact, travel, spend, and do any other activity that can be associated with commerce. Digitalization has made it possible to observe and codify customer data in all these areas at scale, scope, and speed. Facebook's social graph, for example, analyzes data on 2.8 billion individuals and their social activities from moment to moment: what they're doing, whom they're friending and unfriending, where they're traveling to, what brands they're talking about, what movies they're watching, what music they're listening to, and so on. LinkedIn's professional graph captures in real time how 774 million professionals who work in more than 50 million companies and attended 90,000-plus educational institutions respond to job postings, status updates, and live videos. Moreover, it maps members to other entities, such as the skills they have, to serve users targeted ads, learning suggestions, news feeds, and more. LinkedIn is now a subsidiary of Microsoft and part of its data ecosystem, which allows it to create an even more vibrant datagraph.

At traditional companies, customer data is stored as independent records in various functional databases. To gain digital advantage, companies must organize data as a graph of interactions that are analyzable by algorithms that provide insight and deliver personalized value to every customer.

They use datagraphs to enrich product offerings. Datagraph leaders organize their knowledge and expertise in machine-readable graph formats with a set of concepts—such as shopping, travel, or search—across categories. Take Airbnb's travel graph. It depicts an inventory of more than 7 million homes, tagged in terms of entities (cities, landmarks, events, and so on), attributes (such as customer reviews and hours of operation), and the relationships among them to yield ever-improving recommendations about not just the type of house to rent but also the best places for dinner or the best times to visit attractions. This ability to expand the product scope allows Airbnb to serve its customers better than traditional hotels, whose data is housed in departmental silos (reservations for the room booking, concierge for restaurant recommendations, spa for massage appointments, and so on). Similarly, Netflix continually improves how it represents and



classifies movies and television shows across 75,000 microgenres (just as Spotify does with music and podcasts).

Google has been able to build something even more powerful. Its Knowledge Graph represents relationships between words and concepts in ways that help its algorithms understand context. This enables Google to respond to verbal queries such as: “Hey, Google, book two tickets to the Colosseum for next Wednesday and charge it to Google Pay.” Because the underlying knowledge is represented as a graph, the algorithms understand what the user is asking; they know that the “Colosseum” is an attraction in Rome, that next Wednesday is May 25, that “book” means to buy tickets, and that “charge” involves using a stored credit card (as opposed to other meanings of these words). And with each query and customer interaction, the Knowledge Graph is refined to reflect new relationships as meanings change.

Consider a search query by an avid mountaineer who has hiked Mount Adams and would like to hike Mount Fuji next. She may ask: “What should I do differently to prepare for Mount Fuji compared with Mount Adams?” Today, getting an answer requires multiple searches, but Google is working on a new model with more-complex knowledge linkages (with seamless translation across languages) to more effectively respond to such queries.

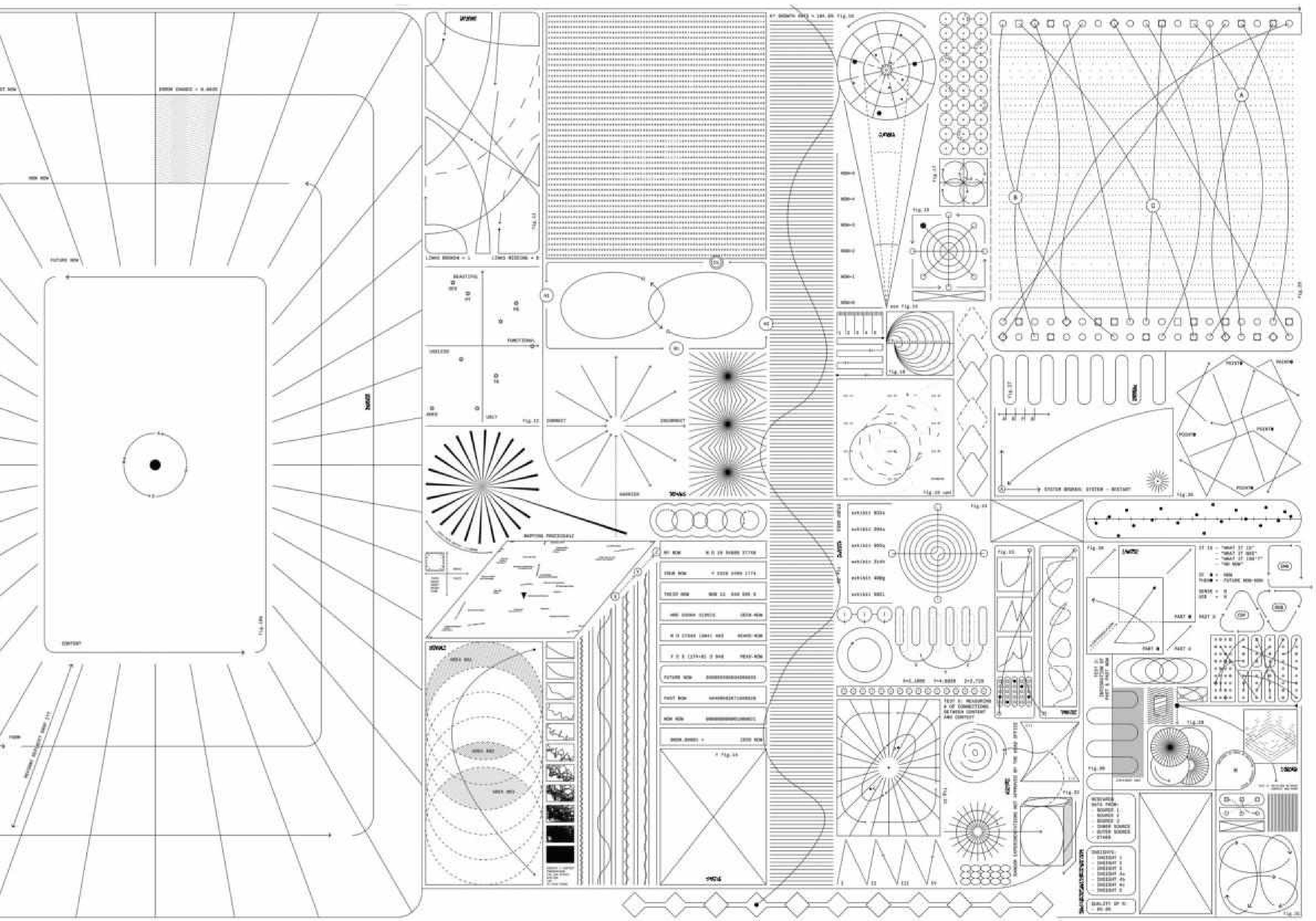
To compete with digital giants, ask yourself: Does knowledge about our products exist mostly as separate data sets, or are we developing machine-readable graphs to identify patterns of preference for our customers?

They win customers’ moments of truth. In 2001, only 2% of Netflix’s recommendations were chosen by its 456,000 users. By 2020, the percentage had increased to 80%, and Netflix had more than 200 million subscribers. Netflix uses its movie graph to win the “moment of truth”: the 90-second-to-two-minute window in which a viewer decides to watch something on Netflix or go elsewhere. Netflix algorithmically customizes and updates its home screen to continuously deliver targeted recommendations for every subscriber. By 2015, Netflix had prevented more than $1 billion a year in canceled subscriptions thanks to its personalized recommendation engine.

To win its moments of truth, Facebook conducts A/B experiments across 3 billion users in near real time to personalize the social feeds of each user. Before Facebook displays a post, it sorts through an inventory of possibilities and narrows them down to about 500 that past behavior patterns suggest a user is likely to engage with. Then, Facebook’s proprietary neural network scores the posts and ranks them before arranging them in a variety of media types, such as text, photos, sounds, and videos interspersed with ads.

Unlike Facebook, whose library of digital content can be instantaneously delivered to its customers worldwide (subject to legal restrictions), Uber’s ability to satisfy a customer’s need for transportation is based on the availability of vehicles at a precise time and at an exact location. Uber’s moment of truth is the five minutes customers are willing to wait for a driver. The ride-sharing company tracks drivers and passengers who have the app open on their smartphones (it previously tracked users even when they weren’t using the app, a controversial policy it was forced to change in 2017 after customer backlash) and uses that data to analyze likely demand patterns. Then it provides incentives for drivers to be available at selected locations. The company continually optimizes its routing algorithms to win customers at the moment of truth.

Although many companies claim to be customer-centric, few use data-graphs and algorithms the way these leaders do. Ask yourself: Are we using



AI-powered algorithms to deliver customers an ever-more-refined product offering to make sure they engage with our product rather than move on?

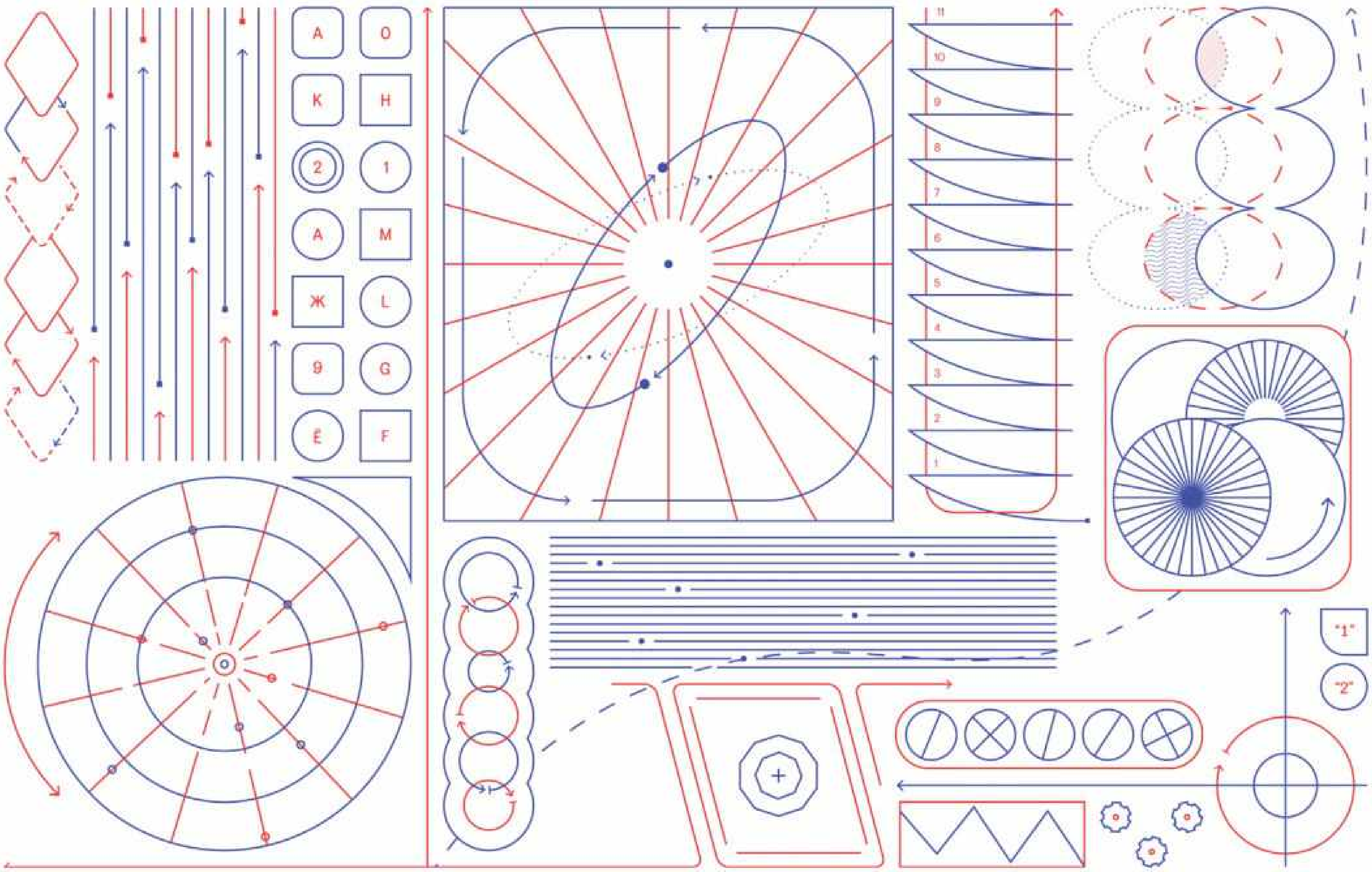
Getting Started

The first thing businesses that wish to remain competitive against datagraph leaders must understand is that a successful strategy isn't solely dependent on having large volumes of information. It's about collecting relevant product-in-use data in real time to achieve data network effects and build advantage. When businesses observe more customer interactions with their products, they accumulate richer data; when they sell more products to a more-diverse group of users, they accumulate more-varied data that helps them further differentiate their offerings. Businesses that aren't using datagraphs or have yet to do so successfully must take the following steps to catch up:

1. Develop a datagraph strategy. To get started, pair executives that have industry knowledge with data scientists to conceptualize your datagraph, examine its future trajectory, and sketch out plausible business implications.

Many companies that don't have the resources of an Amazon or a Netflix have already done this. For example, Stitch Fix was founded as a personalized fashion service in 2010 by a business school student; now, thanks in large part to its fashion graph, its market cap tops $1.6 billion.

Coursera shows how new entrants can use datagraphs to upend a market. Traditional universities offer "one size fits all" courses and certificates; in contrast, Coursera operates like a Netflix or Amazon for education. It offers a personalized online experience through stackable modules, which are



consumable at different durations, locations, difficulty levels, and price points. It uses its proprietary Skills Graph to customize lifelong learning in ways that traditional universities have not been able to achieve.

Ask yourself how your data offers a unique advantage to your business. You may possess proprietary "data hooks" that allow you to observe at the point of use detailed information that is unavailable to others. Your advantage may come from superior data scope (the depth and richness of your data) and access to complementary data from partners. You may have faster data speed (data in motion compared with a competitor's episodic data, which is subject to batch processing). Consider how scale, scope, and speed can be increased through acquisitions (consider Microsoft's acquisitions of LinkedIn and Activision) or alliances (such as Google's partnership with Shopify).

2. Develop proprietary algorithms. It's no longer adequate to carry out different types of analysis independently. Datagraph leaders use proprietary algorithms to conduct descriptive analysis ("What happened?"), diagnostic analysis ("Why did it happen?"), predictive analysis ("What could happen?"), and prescriptive analysis ("What should happen?") in an overarching framework. You can evolve your datagraph infrastructure from the legacy architectures designed to analyze data at rest (batch processing, independent analysis) to analyze real-time data in motion. Be sure to benchmark your algorithms against others in your industry—and against others of its class. For example, if your success metric is the extent to which customers act on your recommendations, how does the performance of your recommendation engine stack up against those of leaders like Netflix, Spotify, and Amazon?

3. Engender trust. Being the custodian of customer data is a huge responsibility. Most customers regard computers, algorithms, and machine learning as complex black boxes, and many believe that their data is being used (even abused) to make digital companies rich and powerful. You must develop ways to use your algorithms to engender trust, and you must earn the right to gather, analyze, and deliver value through data. Explain what you're doing using language that consumers can understand.

Trust gets eroded when consumers feel that their data is being misused. Facebook has become the poster child

Companies must use algorithms in ways that engender trust, and they must earn the right to gather and analyze data.

for this predicament. Recently, a whistleblower from the Facebook data science team directly accused the company of, among other things, using its data and algorithms to amplify inflammatory content to boost engagement on the site, despite having conducted proprietary internal research showing that doing so would be harmful to users and society. Facebook CEO Mark Zuckerberg has denied the claims: "The argument that we deliberately push content that makes people angry for profit is deeply illogical," he said. "We make money from ads, and advertisers consistently tell us they don't want their ads next to harmful or angry content." Whether Zuckerberg can repair the damage depends on how Facebook uses its algorithms and personal data moving forward and the transparency with which it communicates with users.

Every company must invest resources not only in the technical facets of algorithms but in explaining what they do in ways consumers understand and feel comfortable with. Customers increasingly expect to be informed about how digital products function and AI-supported services are delivered, and countries demand that companies tailor their data operations to local regulations. For example, in Germany, which has strict privacy regulations, Alibaba needs a different data strategy from the one it uses in China. And it must communicate to consumers in both countries in ways that promote trust.

4. Update the organization. Business leaders must allocate the resources necessary to upgrade the technology infrastructure required for datagraphs. They must recruit talent with breadth and depth in both data science and business. They must structure the data organization as the connective tissue that ties together all parts of the enterprise, recognizing that modern organizations must juggle two powerful, competing factions: those who believe in the supreme power of data and algorithms to solve problems and those who don't. This tension defines the operating culture of modern organizations: Consider how Netflix CEO Reed Hastings balances the analytical pull of Silicon Valley with the creative pull of Hollywood.

5. Monetize your datagraph. Datagraphs, when constructed to support and shape strategy, reveal that value lies not only in how products are designed and manufactured but also in how they solve specific problems for customers. Insights from datagraphs will help you choose the most appropriate monetization mechanisms and lay out clear pathways from data to business results. You can defend your current revenue and profits with compelling recommendations based on data network effects, just as Netflix uses real-time data to improve customer retention. You can also use your datagraph to develop more-thoughtful ways to expand your revenue and profit streams by going after new pockets of value, as Apple has done with its foray into credit cards, TV, and health care. And you can counterattack in markets where competitors have already mastered datagraphs, as Disney did with its successful entry into the streaming wars with Disney+.

Reshaping Advantage

We've all seen the signs in front of McDonald's announcing, "Over X Billion Served" and have watched the number rise over the years. But tracking how many burgers are sold every year is a relic of the past. Datagraph leaders care less about absolute numbers. Instead, they ask: Do we have data on where each consumer buys her burgers? At what time? What does she drink with it? What does she do before or after buying a burger? Who are our customers and what are their ages, income, location, preferences, lifestyles, and so on? How can we satisfy more of their needs so that they spend more dollars with us than with someone else, feel confident that they got value for their money, and keep coming back?

Datagraphs will reshape competition in every sector sooner than most expect. It's time for every company to move beyond using data to improve operational efficiency and recognize the competitive advantage of datagraphs. Senior leaders must invest in upgrading their data architecture to enable a real-time, comprehensive view of how consumers interact with their products and services. With this structure in place, leaders can develop unique ways to solve customer problems.

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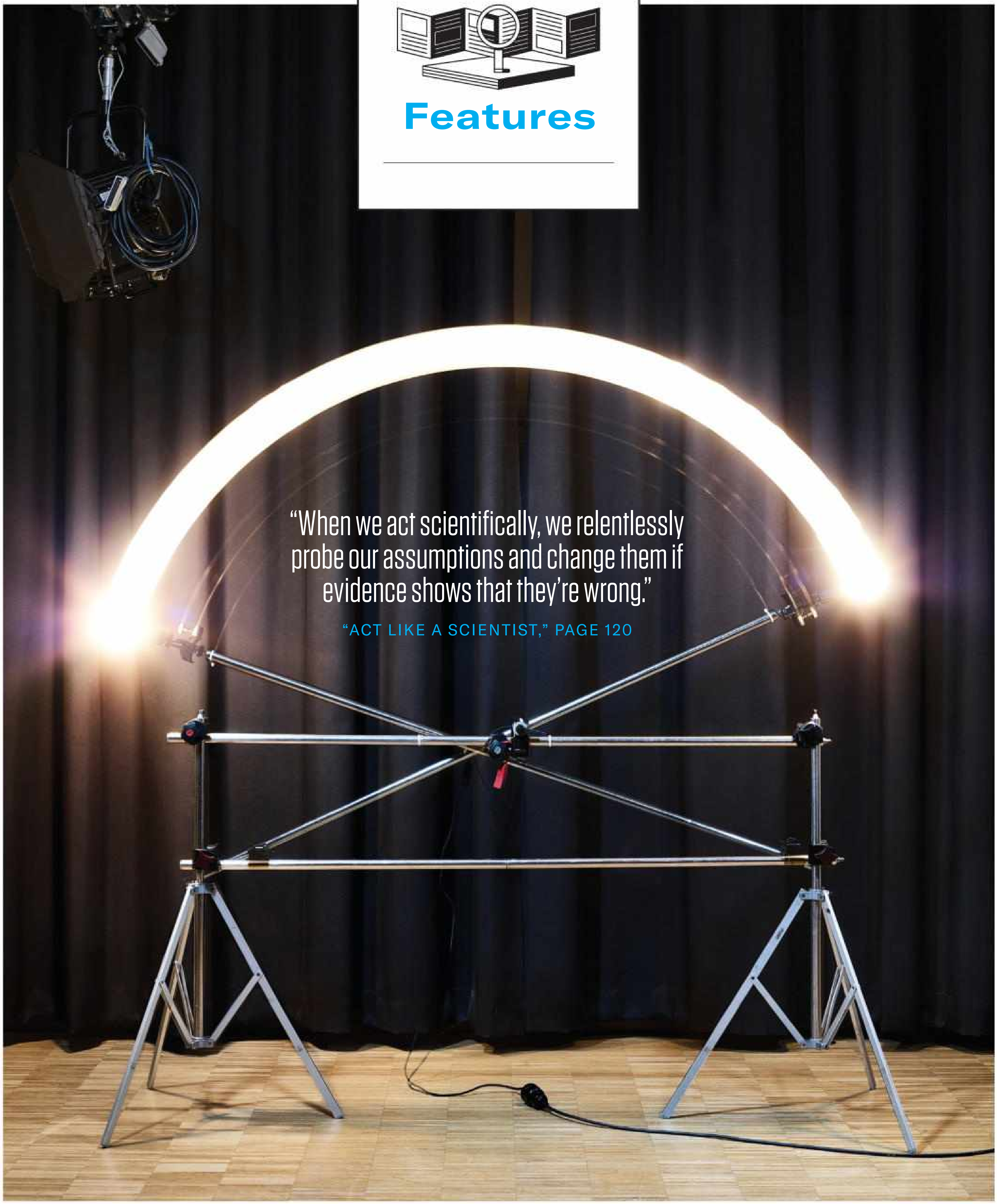
Features



“When we act scientifically, we relentlessly probe our assumptions and change them if evidence shows that they’re wrong.”

“ACT LIKE A SCIENTIST,” PAGE 120

Photograph by **FELIX SCHÖPPNER**

TALENT

DESIGNING WORK THAT PEOPLE *love*

It's easier than you think.

AUTHOR

Marcus Buckingham
Head of people and performance research, ADPRI

ILLUSTRATOR
MESSYMOD

AS RECORD NUMBERS OF PEOPLE HAVE QUIT THEIR JOBS, ALL SECTORS OF THE ECONOMY ARE STRUGGLING TO FILL VACANCIES. TO GET PEOPLE BACK TO WORK, ORGANIZATIONS ARE CHANGING LONG-STANDING POLICIES AND OFFERING UNPRECEDENTED INCENTIVES.

Transportation companies, for example, have upped their wages to lure long-haul drivers back into truck cabs. California public schools are allowing retired teachers to return to work without recertification. CEOs and CHROs are falling all over themselves to offer flex-time work arrangements more attractive than those of their competitors. But such attempts miss the fundamental problem.

Simply put, work isn't working for us. It wasn't before the pandemic, and it isn't now. According to surveys my colleagues and I have conducted at ADP Research Institute (ADPRI), before the pandemic only 18% of respondents were fully engaged at work, 17% felt highly resilient at work, and 14% trusted their senior leaders and team leader. The Centers for Disease Control reported in 2018 that 71% of adults had at least one symptom of workplace stress, such as headaches or feeling overwhelmed or anxious.

The pandemic has added even more pressure to our existing pain. Engagement and resilience are at all-time lows, having each dropped two percentage points during the course of the pandemic. (That may sound like a small change, but given how low those figures already were and the size of the samples, it is both statistically and practically significant.) Meanwhile, a quarter of U.S. workers quit their jobs in 2021—a historic high.

This points to a problem that increasing wages or simplifying professional on-ramps alone won't solve, although those efforts certainly help improve employees' quality of life. We know this because in ADPRI's most recent 50,000-person surveys of stratified random samples of working populations around the world, the most powerful predictors of retention, performance, engagement, resilience, and inclusion did not include pay or liking one's colleagues or work location or even a strong belief in the mission of the organization. All those provided some explanatory power, but none was as significant as these three items:

- Was I excited to work every day last week?

> To attract and retain the best people, we must redesign jobs around a simple but powerful concept: love for the content of the work itself.

• Did I have a chance to use my strengths every day?

• At work do I get a chance to do what I'm good at and something I love?

These results, neuroscience research, and my decades of experience working with individuals in organizations strongly suggest that only when a company intelligently links what people love to their actual activities will it achieve higher performance, higher engagement and resilience, and lower turnover.

To stem the tide and to attract and retain the best people, then, we must redesign jobs around a simple but powerful concept: love for the content of the work itself. That word may seem strong in this context, but people's affinity for their work can and should reach this level, and when it does, amazing things can happen.

Creating a place where all people can find love in their work means incorporating three principles in everything your business does: *The people are the point.* Employees, rather than customers or shareholders, are the most important stakeholders in your organization. *One size fits one.* Each of those employees is a unique person with distinct loves, interests, and skills. *In trust we grow.* For employees to discover and contribute their loves at work, leaders must explicitly make trust the foundation of all practices and policies.

We'll take a look at how the most forward-thinking companies are beginning to implement each of these in turn. But first let's examine why love is so important in the workplace and what companies have missed by ignoring it.

WHAT'S LOVE GOT TO DO WITH IT?

When you're in love with another person, your brain chemistry changes. We don't yet know the exact biochemical cause of romantic love—it appears to be some combination of oxytocin, dopamine, norepinephrine, and vasopressin. But research does reveal that when you're engaged in an activity you love, that same chemical cocktail is present in your brain—along with anandamide, which brings you feelings of joy and wonder.

Primed by this cocktail, you interact with the world differently. Research by neurobiologists suggests that these "love chemicals" lessen the regulatory function of your neocortex, widening your perspective on yourself and liberating your mind to accept new thoughts and feelings. You register other people's emotions more intensely. You remember details more vividly. You perform cognitive tasks faster and better. You are more optimistic, more loyal, more forgiving, and more open to new information and experiences. One could say that doing what you love makes you more effective, but it's so much more than that: You're on fire without the burnout.

So if you're doing work you love, work need not be a stressor but can instead be a source of energy and resilience. Indeed, ADPRI data on engagement shows that people who find love, strength, joy, and excitement in what they do each day are far more likely to be productive, to stay at the company longer than others do, and to sustain themselves in the face of life's inevitable challenges. Finding love in work, therefore, is not self-indulgent or narcissistic; it is a precursor and an amplifier of performance.

IDEA IN BRIEF

THE PROBLEM

Resignations are at an all-time high, and companies desperate to fill vacancies are trying everything from pay raises to trendy perks. But these interventions are falling short—because the real problem is that jobs are often stressful, meaningless, and unlovable.

THE SOLUTION

Companies need to take advantage of each person's unique skills and passions. That means making employees the key stakeholders in the organization, minimizing standardization in performance management tools, and trusting people to accomplish their goals in the way they see fit.

THE BENEFIT

Employees don't need to love everything about their jobs, but research shows that a little goes a long way toward reducing burnout and helping with engagement. Companies that have begun to embrace some of the tenets in this article have seen improvements in both retention and overall performance.

To be clear, that's not quite the same as saying that work must consist exclusively of what you love. We have no data proving that the most productive and engaged people at work love *all* they do. What it points to, though, is that if leaders want their employees to be high performing, to stay with the organization, and to be engaged and resilient, they should be intentional in helping them find love in some of what they do, every day.

Data from the Mayo Clinic reinforces this finding and suggests that 20% is a useful threshold. Its research into burnout in doctors and nurses suggests that if less than 20% of your work consists of things you love to do, you are far more likely to experience physical and psychological burnout. Intriguingly, loving *more* than 20% doesn't seem to net much increase in resilience. A little love of what you do at work goes a long, long way.

For many of us, finding even that level of love in our work is challenging. Perhaps daunted by the sheer range of where employees can find love, or perhaps distrustful of their intentions, or perhaps presuming that "no one could love this job," many managers have designed loveless work, in which the job is defined by standardized steps or required competencies, and success is measured by how closely the employee conforms to them. Distribution-center work and delivery-driver roles usually fall into this category.

It's neither fair nor realistic to put the onus on employees who are faced with jobs like those—and with the need to put food on the table—to find the love in what they do, although it's clear from my decades of research into all manner of jobs that people can find love in surprising places. I've interviewed a manufacturing worker who loved to figure out the "personality" of each of the machines he operated and intervene right before one of them "chose" to break down. I've done focus groups with boron miners who revealed passions as diverse as a love of precision, the thrill of figuring out how to go a hundred days without even the most minor safety incident, and simply being part of a team. Slaughterhouse work, long-haul trucking, housekeeping—all these jobs include a range of activities specific enough to serve as the raw material for some love of the work. The fact that we haven't designed those jobs through the lens of people with specific preferences and passions doesn't mean there's no love to be found there.

So let's turn to organizations. It's time to start designing jobs with love in mind. If leaders were to take all this data to heart and deliberately try to create what I call a Love + Work organization, in which a greater percentage of employees find love in what they do—even if only 20% of the time—how would they proceed? They would make sure that engaged and resilient people were uplifted rather than depleted by their jobs, and as a result delivered better services and products to their customers and made more-sustainable commitments to their communities. Although I know of no one organization today that fully embodies the Love + Work ideal, plenty are beginning to implement pieces of the three core principles.

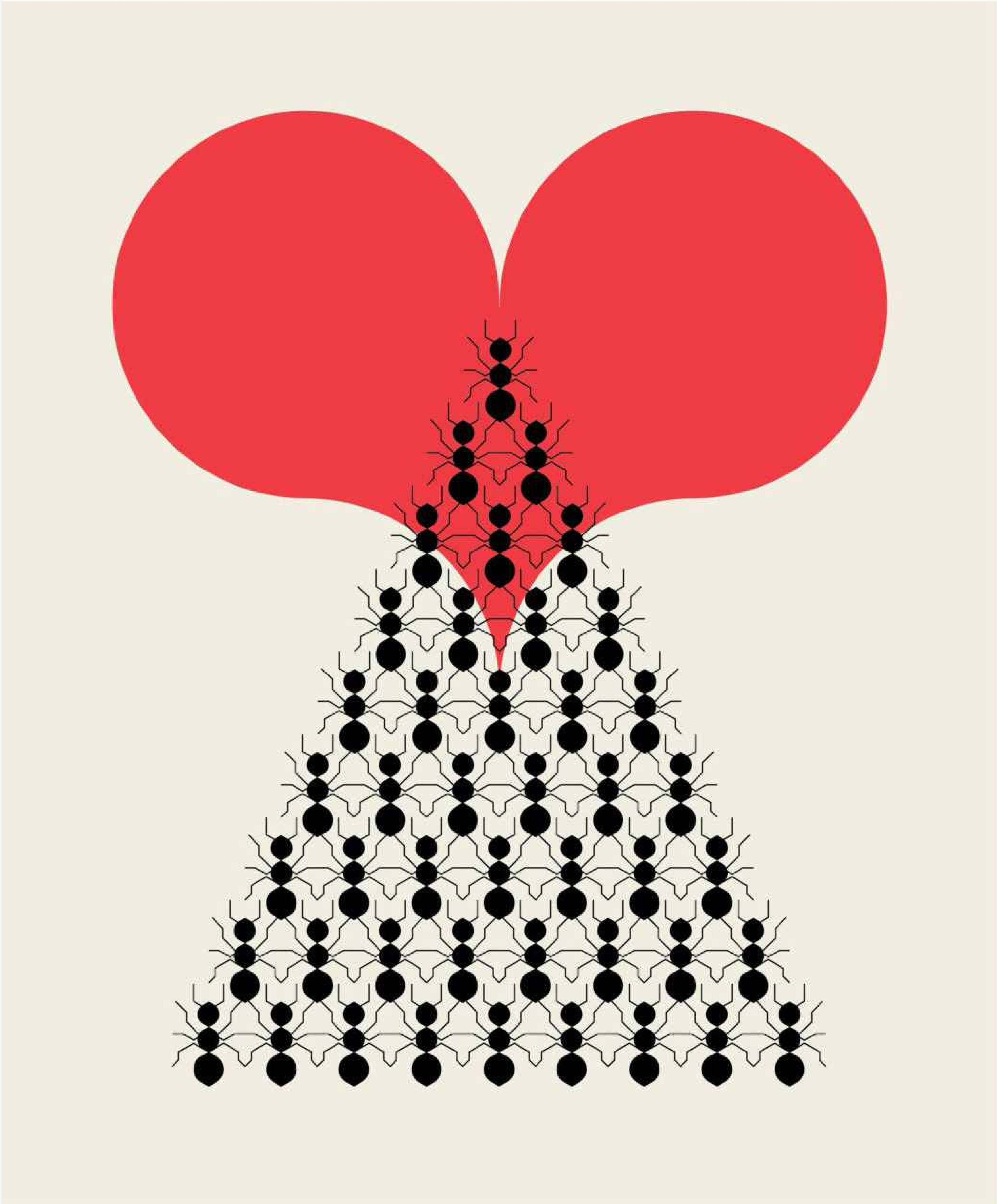
THE PEOPLE ARE THE POINT

A true Love + Work organization is built on a recognition of and commitment to the fundamental importance of each person who comes to work. This stance represents an advance on both Milton Friedman's shareholder capitalism, which held that an organization's sole purpose is to maximize shareholder value, *and* Joseph Stiglitz's stakeholder capitalism, which introduced the idea that organizations should also maximize value to customers, employees, and the broader community.

A Love + Work organization sees employees as the *integrating point* for all other stakeholders rather than as merely one of many. They are, after all, where the work actually happens—where the value in products or for customers is created. That requires that every employee be seen as a full human being, not just a cog in the machine. Specifically, Love + Work organizations do the following:

Recruit human beings, not workers. In a more human-centric approach to onboarding, these companies are rigorous and detailed in explaining why each candidate was selected and what specific strengths and loves they saw in the person, including but also going beyond how those can add value to the overall mission of the organization.

Lululemon is a leader in this. During the company's onboarding process, new employees are encouraged to set goals, both career *and* personal. Employees are equally celebrated whether their goal is to become the company's CEO or to start their own fashion brand sometime in the



Different Ways to Love the Same Job

As part of its ongoing study of excellence at work, ADPRI does primary qualitative research involving top performers in a variety of roles. Here, for example, are the words of three excellent hotel general managers describing what they love about their job:

"It almost sounds strange, I know, but I actually love it when an angry guest marches up to the front desk. I find my brain works faster, my adrenaline pumping; it feels amazing, like I'm on edge, but loving it. Guess I have a superhero complex, right?"

"My best moments are trying to figure out how to get my team to jell. It's hard because you've got all these different personalities, different schedules, different roles, and somehow I've got to arrange it all so that you've got the right people doing the right things at the right time. Of course, I never get it quite right, but I'm so into it."

"People say I'm never satisfied, but I don't think of it like that. I love taking something that's working and then figuring out newer and better ways of doing things. I get bored so quickly. So if it's new, never been done before, first time, I'm right there. I can't tell you how many times we've redone our team awards or our guest appreciation programs. I'll never stop."

future. This focus on the person's unique ambitions during onboarding helps lululemon's 90-day retention and first-year employee-engagement levels rise twice as high as industry averages.

Commit to lifelong learning. A Love + Work organization invests in the ongoing education of each employee. That might be in the form of direct payment for college degrees, as at Amazon, Walmart, and others; or forgiving and reimbursing student loans, as Geico, Starbucks, and UPS do; or giving employees a certain amount of discretionary time to pursue their own projects, as Google has periodically done over the years. All these efforts communicate explicitly that the employee's growth and development have intrinsic worth, even if it doesn't immediately accrue to the organization.

Support alumni. A Love + Work organization has a formal and carefully considered offboarding program that reinforces the message that people's worth as human beings extends far beyond their time with the organization. Many companies, including Accenture and McKinsey, have found that staying close to a strong alumni community offers practical benefits in the form of existing client growth and referrals. But it's also a way for organizations to show their commitment to each employee as a person.

Again, lululemon stands out here. The company's willingness to stay connected to, and support, former employees has created a nexus of entrepreneurial companies in Vancouver, spanning multiple industries including apparel, food services, and fitness. Many employees who depart to pursue dreams of opening a studio or a gym later become "ambassadors," their pictures proudly displayed in local lululemon stores to showcase their new ventures. This demonstrates to current employees how deeply invested the company is in the ongoing success of those who came before them—whether or not that success is within the confines of the company.

ONE SIZE FITS ONE

Brain science reveals that there are more synaptic connections in each human brain than there are stars in 5,000 Milky Ways, resulting in endless variations in how we all think and feel. It shouldn't be surprising, therefore, that people in the same job love and do their work very differently. An organization dedicated to love builds its people practices around that fact. (See the sidebar "Different Ways to Love the Same Job.") To help people pinpoint their particular pattern of loves and loathings and channel them into contribution, an organization must empower teams and team leaders to make the most of each employee's uniqueness.

Avoid tools that standardize. Competency models, feedback tools, and rigid career paths, which have become the norm at most large companies today, replace employees' personal loves with cookie-cutter actions or behaviors. At Love + Work organizations, in contrast, each role is defined by a very few measured outcomes rather than by a competency model. Thus hotel general managers are measured according to occupancy levels and guest satisfaction ratings. Nurses are held accountable for patient outcomes and patient satisfaction scores. Salespeople are measured by sales volume and client growth. And so on. When outcomes are carefully identified and calibrated, employees can pinpoint the activities they love and be helped to find their own path toward those outcomes. The explosive growth of coaching-as-a-service companies such as BetterUp is but one sign that companies are moving away from standardization and toward offering individual guidance to employees at all levels.

These organizations also avoid feedback tools, which by definition measure each person against a standardized

> Aside from input about facts or required steps, feedback generally consists of one person—however well-intentioned—smothering another.

list of skills or competencies. I've previously explained in this magazine why feedback is pernicious ("The Feedback Fallacy," March–April 2019). In short: People's feedback is inevitably colored by their own loves (and loathings) and offers precious little to help other employees discover and contribute theirs. Aside from input about facts or required steps, feedback generally consists of one person—however well-intentioned—smothering another.

Organizing around love of the work means that no career paths are defined by the skills or competencies required at each level—indeed, no research that I know of in any refereed journal proves that the best practitioners in a given role all have the same skills and competencies. Competency models are an abstraction that denies the real-world truth that people in the same role find love in very different activities and aspects of it—and, therefore, they thrive and excel in the role using quite different methods. Careers will increasingly be designed according to an employee's own interests and skills. AI-based software offerings such as Gloat, Fuel50, and Flux are the leaders in a growing pack of platforms that build career paths in this way.

Focus on teams. To avoid standardization, companies must organize around teams.

In 2019, as my ADPRI colleagues and I were analyzing the data from our global study of the world's workers, we discovered just how important teams are to employees. Workers who reported that they felt part of a team were not only 2.7 times as likely as others to be fully engaged, but also three times as likely to be highly resilient and twice as likely to report a strong sense of belonging to their organization.

That's because teams make a home for idiosyncrasy. In a team, each person's unique loves and loathings can be combined with those of others to create something greater than any one person could achieve alone. Humans have long known this. In fact, the oldest human art ever discovered is a 45,000-year-old painting on a cave wall on the island of Sulawesi that depicts a small group of hunters, each drawn with a different animal characteristic thought to denote the particular contribution of each team member: the trunk of an elephant to show the strength of one, the tail of a crocodile to symbolize the cunning of another. "There is no 'I' in 'team'" misses the fundamental point of a team, which is precisely to capitalize on the contribution of each unique 'I.' If you're on a team and your manager and teammates see and know your loves, they can find ways to help you do work that you love better than a blind organization ever could.

But today most organizations are *not* built around teams. Although plenty of teamwork is happening, leaders can't see it or take advantage of it. Just look at most existing human-capital-management software. It displays individuals and who they report to, but not which teams they're on.

An organization with a focus on teams institutes formal team-joining programs in which people learn why they were picked for their assignments. This introduction includes detailed descriptions of the skills and talents they bring to their teams and what they can rely on or turn to each teammate for. Patagonia takes its team building out of headquarters with hiking trips to the nearby Santa Ynez mountains or campfires on the beach in Ventura to help team members see one another as whole, unique people. There they might learn that one member loves working under pressure, another is most creative from 6 AM to noon, and another must do a three-mile run around the neighborhood every morning or lose motivation. As more and more people work remotely, companies will have to be even more intentional about making joining a team a critical part of onboarding. I expect that we'll see lots of software applications emerging to fill this space.

But the most important part of being on a team is developing trust with the individuals who constitute it.

IN TRUST WE GROW

The data supports a strong link between trust and all the good outcomes that love at work produces. When ADPRI asked its 50,000 global survey participants if they trusted their teammates, their team leader, and their senior leaders, those who strongly agreed that they trusted people in two of the three categories were three times as likely as others to be fully engaged and highly resilient. Those who strongly agreed that they trusted all three were *15* times as likely to be fully engaged and *42* times as likely to be highly resilient.

That's because trust drives the ability of employees to discover and do what they love. In a study of housekeepers at Disney World, I found that many loved their job specifically because they could be creative about how to do it.

One rearranged children's stuffed animals into different scenes each day, for example. Another lay down on the bed to check the room from that angle because she knew that would be the first thing a guest did after a long day in the park. The trust given the housekeepers to exercise their autonomy—despite official rules to the contrary—was what made them love their jobs, and that love allowed them to excel in ways that no checklist of tasks could possibly do.

To deliberately engender trust in your organization, you'll need to end certain rituals and start others.

Discard rituals that erode trust. Goals cascaded down from above, performance ratings, and 360-degree surveys—mechanisms that we tend to think of as increasing alignment and boosting performance—too often signal that the organization doesn't trust its people. Goals imposed from above are artificial and disconnect employees from thinking through what they love and how they can contribute it. In contrast, a Love + Work organization trusts people to set their own goals, which are discussed and adjusted as necessary during the course of the year.

I've previously written in these pages ("Reinventing Performance Management," April 2015) about why performance ratings are unreliable. No one trusts them—even the people getting the highest ratings. With everyone reduced to a number, the organization can't see the whole person. Similarly, everyone suspects, rightly, that 360-degree surveys generate unreliable data that in no way reveals who a particular employee is. These mechanisms convey to employees that they are monitored but without any real trust that they know what it takes to do their jobs.

Instead, pay attention. Love + Work organizations build trust by actually paying attention to employees through their team leaders. This requires empowering those leaders and reducing their span of responsibility so that frequent, individualized attention is possible.

Organizations that build trust view a once-a-week check-in between employees and team leaders as the core human ritual at work. During this chat the team leader will not be checking up on or appraising the person or giving feedback. Instead the leader will be talking about the short-term past and future, asking, "What did you love about last week?" "What did you loathe?" "What are your priorities this coming week?" "How can I best help?"

Asking those four questions every week for an entire year will ensure that employees build trust with their team leaders. It doesn't appear to matter whether the check-in happens in person, on the phone, by email, or in an app. What matters is simply that it happens. During a check-in both people can talk about the specifics of the work the employee is doing, the challenges that might be arising, and what the team leader can do to help. Each sharing of a challenge and each small action to provide support help build trust between them. But not only that: Naming the specific activities they loved the previous week keeps employees' loves front and center, tied tightly to the real work that needs to get done.

Many organizations have already instituted the check-in as a core ritual. Cisco alone averages more than 3 million check-ins a year. It is not a cure-all, of course: Some team leaders merely go through the motions, and some employees take a long time to feel that the organization genuinely cares about who they are and what they love. But the data from millions of check-ins is compelling. Team leaders who check in every week drive their team members' engagement scores up by 77% and their team members' voluntary turnover in the following six months down by 67%.

To make this ritual possible, Love + Work organizations eschew departments or functions so large that the span of control makes it impossible for a team leader to check in with each team member. A ratio of one leader to 70 members might make financial sense on a balance sheet, but it makes little sense for people trying to build trust.

OUR LEADERS PUBLICLY announce that they want us to return to work, but for many of us, the current tensions regarding work all stem from our questioning whether we even want to go back to an earlier way of doing things. "Normal" led us into a workplace ecosystem that seemed designed to exploit us and stress us and reduce our agency. Normal made us unhealthy. If organizations dismiss employees' reticence or just hope that it will pass by, they will forever struggle to attract the best people and wonder why they have such trouble keeping the ones they do attract.

In contrast, the smartest organizations will recognize that if they can redesign work with love at its core, they will be able to make new and more-genuine commitments to their workers and over time will become magnets for talent. They will truly deserve the best people.

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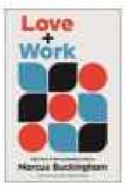

MARCUS BUCKINGHAM *is the head of people and performance research at ADPRI and the author of* Love + Work: How to Find What You Love, Love What You Do, and Do It for the Rest of Your Life *(Harvard Business Review Press, 2022), from which this article is drawn.*

When Your Business *Needs* a Second Growth Engine

Here's how to build one.

STRATEGY

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IDEA IN BRIEF

THE OPPORTUNITY
While new technologies continue to upend industries and shorten the lives of corporations, there has never been a better time for companies to search for new growth engines.

HOW TO TAP IT
Half of successful "engine two" businesses are found by entering a fast-growing adjacency, as Ecolab, a provider of industrial cleaning products and services, did when it moved into the industrial water purification business. About a third are next-generation versions of the core business—like Netflix's move from DVD rentals to streaming. The rest involve building or buying a business totally separate from the core.

KEYS TO SUCCESS
Companies need to identify markets with expanding profit pools, ensure that their offerings are differentiated, and instill an entrepreneurial mindset in the new business while harnessing the skills and assets of the original engine of growth.

In a series of forums we held recently with chief executives of large companies around the world, we uncovered a preoccupation with obsolescence and renewal. When we surveyed them, 65% of the CEOs predicted that in five to seven years their firms' main competitors would be different from their main competitors today, and 63% said that new competitors with new business models would pose a major threat to their firms' core business. The CEOs projected that in the next decade 40% of the value their companies created would come from entering new markets and launching new business models. Clearly, the business landscape feels highly unstable to them—which is understandable, given that new technologies continue to upend industries and wipe out businesses at a remarkable rate.

The good news is that there has never been a better time for companies to try to build new engines of profitable growth. We are in the longest period of low interest rates in modern history. Besides being cheap, money is abundant: One study by Bain & Company estimated that global investment capital had tripled in the past three decades and stood at 10 times global GDP. In addition, high-growth industries today don't require as much

ABOUT THE ART

Benedict Redgrove spent 10 years photographing the magnitude and awe of NASA's spacecraft and rockets and other iconic objects of the agency for his book NASA: Past and Present Dreams of the Future.

investment as they once did; disruptive businesses can scale up faster in size and power with less capital.

In the past the most reliable way for businesses to find their next wave of growth was to mine their one or two strongest core businesses and apply their most distinctive capabilities in adjacent markets. Classic adjacency strategies included moves into new geographies (IKEA's launch of stores in China in 1998 and in India in 2018), new products (Apple's entry into the wearables business in 2015 with the Apple Watch, which now outsells the entire Swiss watch industry), and new customer segments (Porsche's foray into the suburban family market in 2002 with an SUV line that now outsells its classic sports cars in the United States by two to one). Many successful companies have been propelled for decades by strategies based on adjacencies. We estimate that in the past 30 years nearly 75% of the companies that grew revenues and profits by at least 5.5% annually for 15 years or more did so by regularly adapting a repeatable business model to related segments, applications, or product categories or new geographies.

Yet recently, we have seen the success pattern begin to change. More businesses with strong, growing cores are learning the art of building large new cores—what we call *engine twos.* The top eight value-creating companies in the world—Amazon, Google, Apple, Microsoft, Tencent, Ping An, Reliance, and Samsung—have aggressively channeled their capabilities and cash flow into developing new cores. From 2008 to 2018 as much as one-third of the growth in the market value of large public companies could be traced to the prospects of their engine twos.

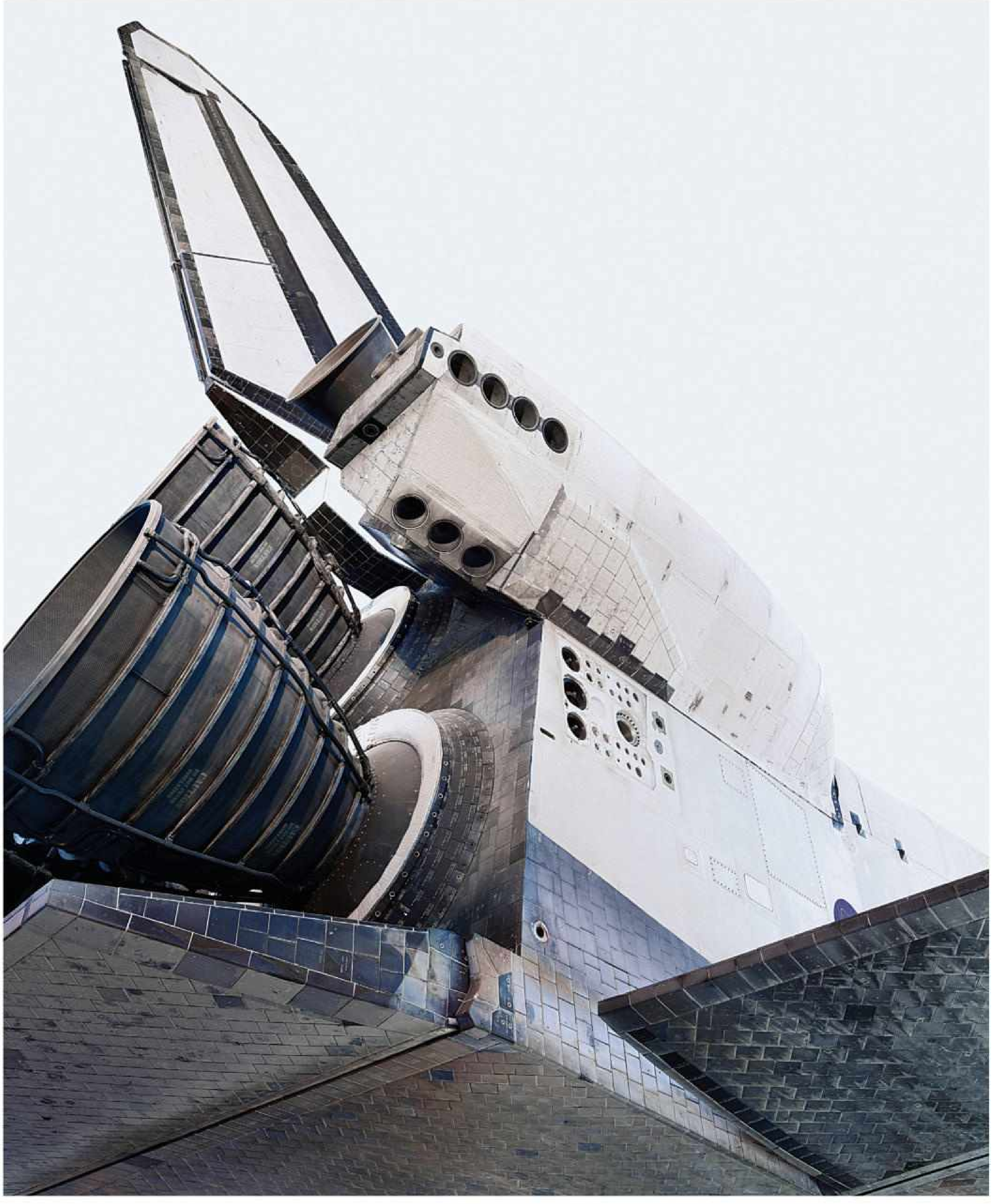
To be sure, the old playbook of expanding from the core into adjacencies will remain durable for many companies. But change and disruption now happen so fast that it's very difficult to be certain that your company will be one of them. The risk of inaction is high. In the past five years more than 60% of big public companies have stalled out—experiencing a sudden large drop in growth or shareholder returns—or faced threatening levels of stagnation, underperforming their markets with low-single-digit growth. According to our studies of stall-outs and other research, after a large company experiences a downward trend in sales and profits for 10 years, the chances that it will be reversed are less than 20%.

That makes finding a successful second core an imperative. To better understand what that involves, we identified more than 1,000 companies that exhibited features of engine twos. Out of that set we built a database of 100 new initiatives that were deemed to have the potential to contribute a major share of a company's future growth and were well-documented in company filings and media reports. We also developed case analyses of engine twos and distilled lessons from the 180 forums on growth and business building we've held over the past three years, which were attended by some 3,000 CEOs in 35 countries.

Three distinct archetypes of successful engine twos emerged. About a third were next-generation versions of original core businesses, or *engine ones.* These were separate units that often had been started in response to perceived threats from an insurgent competitor with a new business model, to a major shift in customer purchasing patterns, or to rapid technological advances that allowed companies to quickly create new offerings. Examples of this form of new engine include the digital bank that DBS founded alongside its traditional legacy bank, the digital media business that the traditional German periodical publisher Axel Springer shifted to, and the content-streaming service that Netflix built next to its original DVD-by-mail core.

A second form, accounting for nearly half the successful engine twos, involved moving into a market that historically was just minimally related to the engine one business, drawing on the first core's assets and on new technologies. Consider the French multinational Schneider Electric: Alongside its core as a provider of heavy equipment for the transmission and distribution of electrical power, it created a thriving software and services business focused on energy management for factories and businesses. Such engine twos almost always have the additional benefit of strengthening the engine one and protecting it from market shifts or competitive threats. As part of its move into services, for instance, Schneider added internet capabilities to its equipment, which enabled the company to monitor it and offer customers invaluable "predictive maintenance" that prevented disruptions. Eventually, connectivity to the cloud could allow Schneider to shift to a new model in which it charges customers for the amount of energy they use instead of selling them equipment outright.

The third engine-two pattern, accounting for less than one-fifth of success cases, involved building a brand-new



Successful second engines are often built on exciting frontiers opened up by novel technologies.

business almost completely unrelated to the engine one. Nearly all the examples in this category followed a common formula: preemptively making a major investment in a new technology, using current corporate capabilities to leapfrog into a leadership position, following up with additional heavy investments, and making acquisitions to obtain needed capabilities or build scale quickly. This was the path taken by the conglomerate Reliance, which started out as a synthetic-fiber producer, eventually expanded into oil and gas, and now is the most valuable company in India. In 2016, Reliance drew on its capabilities in raising capital for industrial projects, recruiting top management, and working closely with government agencies to launch its engine two—Jio, India's first 4G mobile network—with an investment of $21 billion. It then spent an additional $15 billion to buy content and data service providers such as the KaiOS phone operating system and the music-streaming service Saavn. Today Jio is the leading telecom company in India, with some 400 million wireless subscribers and a 36% share of the market.

In our research we saw that four foundational elements were instrumental in the success of all three types of engine twos. They should be viewed as essential criteria for any new core a leadership team is contemplating entering at scale.

1 A TARGET MARKET WITH LARGE PROFIT POTENTIAL

Most successful engine-two businesses were in a market where the profit pool—the total profits earned at all points along the value chain—was sizable, rapidly expanding, or shifting. In more than 80% of successes, revenues and profits were clearly expected to rise faster in the engine two's market than in the engine one's. Amazon Web Services (AWS) is the most dramatic and well-documented example. By dominating the rapidly growing market for cloud computing, AWS now consistently delivers more profits than all the rest of Amazon does. (AWS has an operating margin of about 30%.)

The most common success factor in building new core businesses was a company's ability to ride a technology adoption curve in markets where the profit pools were large or shifting quickly toward players with new forms of competitive advantage. More than 60% of the engine twos we studied had business models based on technology substitution (such as the insurer Ping An's online medical service Ping An Good Doctor) or technology upgrades (such as Reliance's Jio 4G network). This ability was also critical to the success of next-generation versions of engine ones (such as Philip Morris's entry into smokeless products).

As these examples illustrate, successful second engines are often built on exciting frontiers opened up by novel technologies. Notably, we didn't find any successful engine twos predicated on consolidating competitors across a declining industry or on acquiring and rejuvenating an underperforming leader in a lagging industry.

2 A PROPRIETARY SOURCE OF COMPETITIVE ADVANTAGE

Businesses make money by being sustainably different and better, not just by pursuing growth. This is the cold truth of hot markets. Most of the time, more than two-thirds of the profit pool in a clearly defined competitive arena is captured by the top two players, with the rest barely earning more than their cost of capital. When we recently studied the distribution of economic profits across a wide range of industries, we found that in many the proportion was even more lopsided. The lesson is clear: If you don't possess or can't see your way to developing a strong competitive advantage that will be hard for others to replicate, then think twice about pursuing an engine two.

This lesson was well understood by the management team of the Belgian company Umicore, a global leader in the reclamation of specialty metals, whose core business is two centuries old. Seeing an opportunity in the advent of electric vehicles and clean energy, the company started an engine two, Umicore Rechargeable Battery Materials, to focus on the essential products for batteries and catalysts. Because Umicore had years of experience working with lithium, nickel, cobalt, and manganese, which are all used in batteries for electric cars, and refining them into precise, high-quality formulations, its leadership team was confident that it could build a new business with a clear technical differentiation and advantage. To fund the engine two, in 2017 the company divested some older assets, including its zinc business, which had begun with a mine granted by Napoléon Bonaparte in 1805. In short order the engine two

revenues eclipsed those of the reclamation business and became a major source of growth.

In some cases the differentiated asset or capability of a successful engine two was a product or service built to support the engine one. Ant Group, now one of the top financial technology companies in the world, began in 2004 when Jack Ma, the founder of Alibaba, created a service called Alipay that online shoppers could use to pay for purchases on his company's e-commerce sites. In 2011, seeing that the online payment market was growing rapidly and that many adjacent markets were forming around it, Ma spun off Alipay as a separate company. Today it is the leading payment service provider in China, used by more than 80% of Chinese consumers. Alipay's differentiation was not only its link to the Alibaba e-commerce businesses, which fed it tens of millions of customers, but also its approach to the market. Unlike other online payment methods—and thanks in part to a conducive regulatory environment in China—Alipay invested in service both to consumers and to vendors of all sizes (in the form of data on their businesses and methods for lowering financial risk). As a multisided platform, it has been able to tap even larger opportunities for growth.

Looking at Ant Group and at Umicore's rechargeable battery business, one might conclude that an engine two initiative can be pursued only if all the elements necessary to create the new core already exist in the engine one. That is not the case. We found that only about one in four successful engine twos was built organically end to end; the remaining three did a lot of acquisitions to assemble the pieces needed to quickly scale up.

For engine twos that were next-generation versions of a core business, we saw several patterns of acquisitions. One was a "string of pearls." Take the Danish company Ørsted. Originally founded to extract offshore oil and gas resources in the Danish sector of the North Sea, it decided to leverage its strong government relationships and engineering capabilities to start a renewable energy business. It bolstered this successful move by buying a series of wind farms, quickly gaining scale. Today wind energy accounts for more than two-thirds of the company's revenues and a much larger share of its value creation.

Another pattern was a "big bang" acquisition that formed a major part of the new core and gave it significant market share, which the buyer then worked to enhance. A dramatic example is Dell's $67 billion purchase of EMC, the leader in computer storage software and equipment. Note that this is far different from the "catch and kill" approach incumbents often use to squash insurgent competitors by buying them only to shutter their operations.

Acquisitions were also often used surgically to add assets and capabilities and quickly magnify the power of an engine two that had begun organically. A recent example of this is the founding of Disney+ in 2019. This high-profile entry into the streaming business was called the "highest priority" of Disney by former CEO Bob Iger, who stepped down from that position and into the executive chairman role to focus on creating this new core for the company. (Iger retired at the end of 2021.) While Disney+ began with a strong brand and a unique entertainment library, the acquisition of the capabilities of BAMTech, a media-streaming company, and

When an Engine Two Isn't Right for You

We have argued that it makes sense for more companies to consider building a second engine of growth. This perspective is based on the abundance of opportunities, historically low interest rates, the widespread availability of investment cash, new approaches to creating a culture of entrepreneurship, and the many ways to acquire or access strong new capabilities. However, any investment in an engine two carries risks, including to the momentum of the core business itself.

Here are five reasons to consider backing off from an engine two:

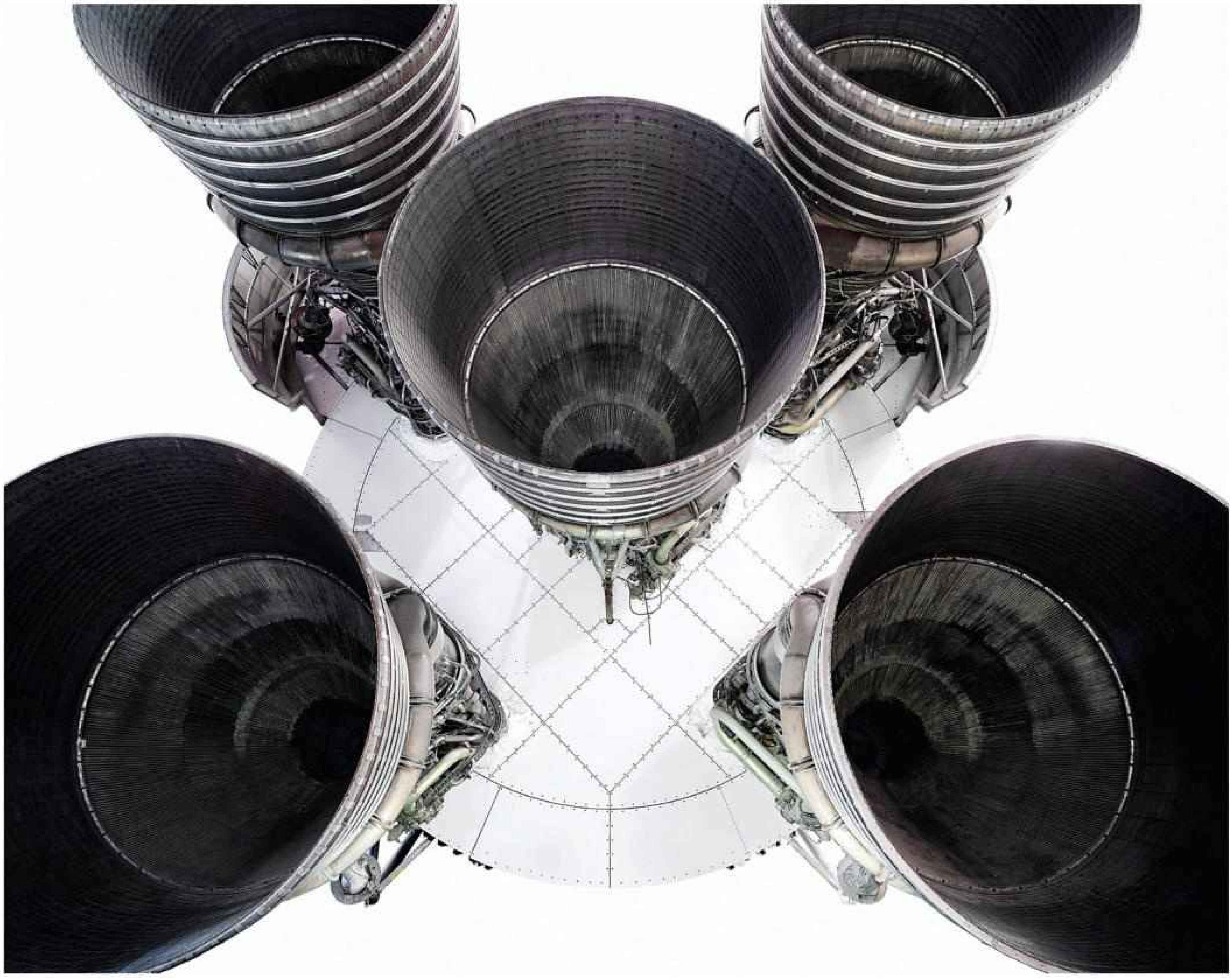
Risk of losing focus. If the original core business is not close to reaching its full potential and needs a lot of attention and resources to do so, the premature pursuit of a new core could derail the company.

Lack of commitment. Building an engine two requires a willingness to act fast and make major investments. Senior management must be committed to pursuing market leadership for the second core, not just trying to participate in the market.

Leadership void. Engine twos can't succeed if they can't find leaders with the right passion, skills, and commitment.

Hostility from the original core. Leveraging the scale and capabilities of the core is central to building a new growth engine within a large corporation. If a firm's most powerful business is resistant and controls key assets, then the time may not be right for an engine two.

Hot market but uncertain advantage. If you are not confident that you have a truly differentiated offering, then you probably don't have the basis for success, no matter how explosive the market's growth could be.



the purchase of the content creator 21st Century Fox were central to its strategy. The venture is off to an explosive start and, if successful, will be the quintessential engine two, expanding the audience for Disney's content while increasing follow-on sales of products based on its characters and shows—the biggest profit generator of the Disney model.

The bottom line is that acquisitions were crucial to creating a differentiated advantage in more than half of the successful engine twos, either by enabling the quick formation of a new growth core or by giving companies world-class technical capabilities.

The first two criteria for a successful engine two—a robust profit pool and the ability to form a differentiated core—are fundamentally market-facing conditions. The second two elements are quite dissimilar but no less important, and they relate to the internal characteristics of the company.

3 AN ENTREPRENEURIAL MINDSET

Building a second growth engine requires a way of thinking that doesn't come naturally in large incumbents. In past research (described in our book *The Founder's Mentality*), we defined the attributes of this mindset: a strong sense of insurgent mission, an obsession with the front line, and an ownership attitude. We found that companies that had those attributes accounted for 87% of second engines that were home runs, 66% of those that performed reasonably well, and just 12% of the failures. This mindset emerged as the strongest of the four success factors in our research.

How did companies with these traits overcome the bureaucracy that drags down most large organizations? They didn't have to. Instead, they set up stand-alone engine-two

units. For instance, the Brazilian bank Bradesco's digital venture, Next, was a separate entity with its own target market of tech-forward customers, culture, brand, and ways of working. Ørsted made each of its wind farms an individual unit and gave the manager in charge the latitude to shape the local culture and strategy, creating a "mini-founder" experience. Jio was separated from Reliance and given a capital structure that allowed outside investors to buy shares of it, while still drawing on corporate assets that accelerated its growth.

The need to give start-up enterprises within a company freedom is not a new concept. Robert Burgelman wrote about the challenge of using assets from the original core to build new businesses in his book *Strategy Is Destiny,* comparing the established core to a creosote bush, which discharges sap to kill any new plants that grow around it—an analogy first used by former Intel CEO Craig Barrett. Clayton Christensen's book *The Innovator's Dilemma* documented the many factors that prevent companies from putting new ventures in separate units. What is new is how many large companies are finally beginning to crack the code by giving internal start-ups the ability to make decisions independently, empowering their leaders with the incentives of owners, and enabling faster, more-entrepreneurial ways of innovating.

4 THE ABILITY TO LEVERAGE THE SCALE AND ASSETS OF ENGINE ONE

It's easy to focus on the disadvantages that large, often-bureaucratic companies face in launching new businesses, but incumbents have advantages too—primarily, not having to start from scratch.

Ecolab, for instance, built a successful engine two in water purification by drawing on the capabilities, channels, sales force, and customers of its engine one. Founded in 1923 by a salesman who noticed stains on his hotel carpet and created a cleaning solution, Ecolab grew to be the leader in industrial cleaning products and services and more than twice the size of its nearest competitor.

But when the growth of Ecolab's markets started slowing a decade ago, its leadership looked for new opportunities and determined that its customers' greatest need would be securing access to clean water. The company predicted that

Acquisitions were crucial to creating a differentiated advantage in more than half of the successful engine twos.

the water purification market would require highly advanced technology and would rapidly expand, presenting clear engine-two potential. Ecolab jumped into the business in 2011 by acquiring Nalco, a leader in industrial water purification.

To fund more than a dozen acquisitions and equity investments in water-purification-technology companies, Ecolab then sold off its noncore assets in chemicals and energy. It also leveraged its cleaning sales force and purification and antimicrobial technologies to cross-sell water-treatment products and services to its core customers. Since 2010, Ecolab's revenue has climbed from $6.8 billion to $11.8 billion, its enterprise value has increased by a factor of five, and its stock market value has jumped 465%, outperforming the overall stock market by more than 50%.

The sharing of capabilities, customer access, or distribution systems between an established engine one and a fledgling engine two doesn't come naturally or happen on its own. Tensions and trade-offs inevitably arise. The key is to anticipate some of them early in the process, creating agreements that mitigate them in advance. In addition, it's critical to regularly hold a standing group meeting, attended by leaders of each business and the CEO, to resolve conflicts, remove bottlenecks quickly, and identify further synergies.

THE POWER OF COMBINING ALL FOUR ELEMENTS

Each of the success factors magnifies and reinforces the effects of the others. The more potential the market and its profit pool (element one) have, the more important it is to harness the assets of the original core (element four) to capture share ahead of competitors. The stronger the differentiation of your entry strategy (element two), the more important it is to have an entrepreneurial mindset (element three) in order to test that differentiation and continually find ways to improve it, so you can remain a step ahead of the competition.

The combined power of all four elements can be seen in the hypergrowth of the Covid-19 PCR testing division launched by Thermo Fisher Scientific, which provides diagnostic, life sciences, and laboratory products and pharmaceutical services. During the pandemic the company built a new lab-based testing business that went from producing zero tests to 10 million weekly in six months. After only 10 months the new venture was on track to account for 25% of company revenues. Thermo Fisher then moved into rapid testing by acquiring Mesa Biotech, a small maker of PCR testing devices for hospitals, physicians' offices, and urgent care clinics, and immediately scaled up its manufacturing and commercial capabilities, increasing sales volume for those products by 10 times in less than a year.

The company leveraged its engine one capabilities by shifting nearly 1,000 employees to the new business—notably, more than 100 R&D scientists who were given new six-month contracts. It promoted an entrepreneurial culture by temporarily walling that workforce off with a companywide message: "The Covid teams are doing something important for us and for the world. Please leave them alone to do it." The company also formed executive teams devoted to slicing through bureaucracy, tossing out typical finance-enforced spending limits and speeding the hiring of more than 1,300 new employees, which doubled the division's workforce. Thermo Fisher's long-term ambition? The leadership position in testing in the world beyond the pandemic. Today the business boasts more than 20 SKUs developed from its first Covid test.

ENGINE TWO BUSINESSES are certainly not for every company or every situation. However, the environment today is more conducive to their success than it has ever been before. The financial conditions are uniquely ideal. Market turbulence is generating a burst of opportunities—as Thermo Fisher's story dramatically demonstrates. As digital technologies continue to come of age, they're unleashing new business models, redrawing market boundaries, and shifting profit pools. And perhaps most important of all, evolving management practices are making it easier to foster entrepreneurship within incumbent corporations and create the kind of flexible, innovative culture that will keep them strong for years to come.

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PHOTOGRAPHER THE VOORHES

HEALTH CARE

the telehealth era is just beginning

More gains in quality, affordability, and accessibility are on the way.

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Contrary to what many people think, virtual health care, also known as telemedicine or telehealth, is much more than a cheap digital knock-off of in-person care.

When used appropriately, it improves patient health and reduces costs. It also makes care more equitable and accessible to the 89% of U.S. adults and 78% of adults globally who own a smartphone, including those in medically underserved communities.

And yet telemedicine usage in the United States has plunged from its peak in April 2020, during the first surge of Covid-19 cases, when it accounted for 69% of doctor-patient visits. Similar patterns have been seen across Europe and Asia over the past two years, prompting some governments to take actions in support of telehealth. The European Parliament and the European Council recently announced the EU4Health program to spur the sharing of digital health records, e-prescriptions, and telehealth in general. And Saudi Arabia is implementing a strategy that includes smartphone applications and a network to connect specialized facilities with primary care centers and hospitals in remote areas.

But in many countries, barriers in the form of regulations, payment regimes, and patient acceptance remain. Any nation seeking to raise health care quality, increase access, and lower costs should be expanding, not contracting, the use of virtual care.

In this article we take an inside look at two of telemedicine's earliest adopters and most effective users: Kaiser Permanente, where one of us (Robert) was CEO; and Intermountain Healthcare, where the other (Brian) is an executive director of telehealth services. For more than a decade these integrated health systems have used virtual care platforms to improve preventive medicine, care coordination, chronic disease management, and affordability for more than 13 million patients.

Having analyzed health outcomes data from the independent National Committee for Quality Assurance, health plan member satisfaction surveys from J.D. Power, and internal data from our own organizations, we are confident that full implementation of five opportunities would improve clinical quality nationwide by 20%, increase access to care by 20%, and reduce health care spending by 15% to 20%.

IDEA IN BRIEF

THE PROBLEM

The use of telemedicine soared during the height of the pandemic but has since plunged, owing to regulations, payment regimes, and patients' and providers' long-established preferences.

THE MISSED OPPORTUNITY

Virtual care can be much more than an add-on to conventional medicine. It can play a central role in diagnosis and treatment, raising the quality of care, increasing access, and lowering costs.

THE SOLUTION

The care delivery model could be revamped to tap telemedicine's full potential. Kaiser Permanente and Intermountain Healthcare are among those showing the way.

Kaiser Permanente members in some areas have a better option than going to the ER: They have 24/7 access to telehealth physicians, who can solve the problem 60% of the time.

OPPORTUNITY 1

Reduce Expensive and Unnecessary Trips to the ER

"If this is a medical emergency, please hang up and dial 911 or go to the nearest emergency room." Many Americans have heard this recorded after-hours script. Too often it leaves sick callers and worried parents with a difficult decision: *Do I drive to the ER and lose a night of sleep or chance it and wait until morning to call my doctor's office?*

Those who drive to the ER will endure a two-hour wait, on average, along with duplicative testing and wildly inflated prices. ER services are 12 times as expensive as visiting a physician's office and waste more than $32 billion each year, according to a 2019 analysis by UnitedHealth Group.

Those patients face heightened medical risks as well. Emergency physicians often can't access patients' electronic health records, owing to a lack of interoperability between systems, and they don't offer follow-up care. Both facts can cause discontinuity in treatment and avoidable errors. Unless one is experiencing symptoms of a severe medical crisis—crushing chest pain or half-body weakness, say—the emergency room isn't the safest place to be, especially when ERs are crowded with Covid-19 patients. Yet many who go to the ER after hours require no emergency services. They simply have no other place to go.

Kaiser Permanente members in Virginia, Maryland, and Washington, DC, have a better option: They can access a 24/7 video health center that connects them with a doctor who can quickly assess the problem and offer guidance. If the doctor determines that the problem is life-threatening, she tells the patient to go immediately to the ER, sending the relevant medical information ahead to reduce the risk of complications. But telehealth physicians can solve the problem some 60% of the time. And when a patient needs follow-up care, they can schedule an appointment with his personal physician and communicate relevant details ahead of the visit. This application of virtual care not only addresses medical problems immediately and around the clock; it also prevents unnecessary ER visits that can lead to inappropriate hospital admissions and thousands of dollars in unnecessary expenses per patient.

During the pandemic Utah-based Intermountain Healthcare devised a remote patient-monitoring Covid program that combines telemedicine and home monitoring to unclog emergency rooms and free up hospital beds. Following evaluation by a physician, patients who test positive for (or are suspected of having) Covid-19 and have non–life-threatening symptoms are given a Bluetooth pulse oximeter. They pair the device with their smartphone and use it to measure their blood oxygen levels daily for two weeks, sending the data to a centrally located nurse care team. If the level is low, the center contacts the patient and conducts a clinical evaluation via phone or video. Patients deemed to remain at low risk for severe illness continue with home monitoring. Those whose condition is severe or deteriorating are instructed to go to the ER.

In its first 14 months the program handled just over 10,000 patients and allowed Intermountain to avoid more than 1,800 hospital admissions and save almost 4,800 hospital bed-days, freeing up beds for critically ill patients. If all providers in the United States had been using such a program, hundreds of thousands of hospitalizations could have been safely avoided, tens of thousands of lives might have been saved, and significant cost savings would have been realized.

If telemedicine programs like the two we've just described were replicated nationally and eliminated even half of avoidable ER visits, billions of dollars a year could be saved.

OPPORTUNITY 2

Reverse America's Chronic-Disease Crisis

Chronic diseases are the leading cause of death and disability in the United States, accounting for seven in 10 deaths. Many patients hospitalized with or killed by Covid-19 had conditions such as obesity, chronic obstructive pulmonary disease, hypertension, diabetes, cardiovascular disease, and chronic kidney disease. Even before the pandemic the United States spent $214 billion a year on medical interventions for preventable complications from events such as heart attacks and strokes and lost $138 billion in worker productivity.

A leading cause of stroke, and a major contributor to heart disease and kidney failure, is hypertension, or high blood pressure. This chronic condition is poorly controlled

> In rural areas with few mental health professionals, Intermountain's virtual visits provide prompt access to routine and emergency care.

50% of the time in the United States. That means half of all people with hypertension remain at an elevated risk of severe complications.

For members of large multispecialty medical groups such as Kaiser Permanente, high blood pressure is a much more manageable problem. KP consistently achieves a control rate above 90%. It's not that it has better doctors or medications than other providers do; the biggest difference is frequency of disease measurement and timeliness of treatment—factors facilitated by virtual care.

The traditional approach to managing chronic disease is intermittent and episodic. Once a doctor makes a diagnosis, he schedules follow-up office visits on a routine basis, usually every four to six months. Most Americans are used to this cadence, but it makes no sense. Some patients with well-controlled chronic diseases might not need to see their doctor for a year, while others would benefit from monthly evaluations. But traveling to the doctor's office once a month, often for nothing more than a blood-pressure check, is time-consuming, inconvenient, and for many people expensive.

Virtual visits can be scheduled more frequently, and they're less time-consuming for both patients and physicians. Blood pressure can be checked at home with a device digitally connected to the electronic health record system. The combination of telemedicine and wearable devices allows for more-frequent medication adjustments, resulting in faster and better disease control and fewer complications at a lower total cost.

With the combination of telemedicine and an increased emphasis on primary care and prevention, Kaiser Permanente members in California and the mid-Atlantic region are 14% less likely to die from stroke and 43% less likely to die from heart disease than are people in the United States as a whole.

Superior clinical outcomes don't just save lives; they save money, too. Each year 805,000 Americans suffer a heart attack. The estimated cost of care afterward was $21,500 as of 2012, the most recent year for which nationwide data is available; it is undoubtedly higher today. If 40% of attacks could be avoided through telemedicine and consistent screening protocols, nationwide saving would total at least $6.9 billion annually.

OPPORTUNITY 3

Address Disparities in Health Care

Telemedicine's ability to address inequities in access has been demonstrated during the pandemic. The ubiquitous smartphone, capable of video interactions, can be a lifeline for underserved populations. In rural areas with few mental health professionals, for example, Intermountain's ability to offer virtual visits gives patients prompt access to both emergency and routine care. When the pandemic forced the closure of in-person clinics and offices, psychologists and psychiatrists across the United States quickly instituted virtual visits. Intermountain delivered 85% of its mental- and behavioral-health visits virtually, including those for drug- and alcohol-related programs. Telemedicine visits remained popular even after restrictions eased. Intermountain patients receiving their care virtually reported high satisfaction and were less likely to cancel appointments than were patients who had scheduled in-person visits.

Kaiser Permanente uses video to address disparities in urban areas. In 2006 it began rolling out a program across 21 medical centers for pregnant women battling addiction. Those who were dependent on buses for transportation or who lacked reliable childcare struggled to attend group counseling programs that met three times a week; fewer than 30% of participants were consistently able to attend. But even women without internet access could join virtual sessions with a smartphone, as long as they had at least a 3G connection. Perfect attendance rates soared above 80%, dramatically reducing the need for neonatal ICU admissions postdelivery, which can cost $100,000 or more per child.

OPPORTUNITY 4

Make Specialty Care Faster and More Efficient

When treating patients who require specialty referrals, primary care doctors have a common complaint: They have 95% of the expertise needed to accurately diagnose and treat but no easy way to obtain the other 5%. Sometimes all they seek is assurance that their diagnosis or plan is appropriate. But without that missing 5%, their only option is to make a

Adam Voorhes/Gallery Stock

referral for an in-person specialty consultation, leading to treatment delays and higher costs.

Waiting lists for specialist appointments can be long. For example, even before the pandemic, patients in the United States often had to wait weeks to see a dermatologist. At Kaiser Permanente, primary care physicians routinely use telemedicine to consult dermatologists—while the patient is in the exam room. Patients leave with a confirmed diagnosis, treatment plan, and prescription. Some 70% of KP patients who visit their primary care doctor with a difficult-to-diagnose rash have the problem resolved in less than 10 minutes via telemedicine.

Across the most common medical and surgical specialties, KP's remote-specialist model resolves patients' problems 40% of the time, with no specialist visits needed. Patient satisfaction is 10% higher than for in-person consultations. When a patient does need to visit a specialist for a procedure, the appointment is scheduled after the virtual consultation; no in-person consult is required. If 30% to 40% of in-person specialist visits in the United States were replaced with this type of telehealth consult, patients would miss fewer workdays and receive faster and more-effective care, and tens of billions of dollars annually would be saved.

OPPORTUNITY 5

Provide Access to the Best Doctors

Patients with obscure or complex medical problems often find themselves living a two-pronged nightmare. There's the pain and fear of having a rare disease and the frustration of trying to find the right specialist. Patients may bounce from one local physician to the next, wasting weeks or months sitting through useless appointments and enduring sleepless nights.

Telemedicine offers a far better solution. Virtual technology can connect patients with the most experienced and knowledgeable doctors regardless of where they practice. This scenario is already playing out in Kaiser Permanente's Northern California region. A nationally renowned expert in kidney cancer is located in a remote corner of Marin County, nearly 200 miles from some KP members. Newly diagnosed patients can meet with him virtually. During video consultations he educates them about their condition, using visual aids on a shared screen. He walks them through the relevant clinical information, their radiological scans, and treatment options. He shares videos of the anatomy and the anticipated surgical procedure. Given the rapport thus established, nearly all patients choose to have him perform their surgery, despite the distance many must travel; the day of the operation is often the first time both parties are in the same room. The doctor's patient-satisfaction scores are universally excellent.

Intermountain uses telemedicine to connect patients who have complex (and often very costly) neurological conditions with specialists. Its Neuro Fast Access Clinical Team virtual platform enables them to receive treatment for migraines, low back pain, and neck pain from an expert at a low cost, in the process freeing up valuable clinical time for patients who require in-person treatment, such as Botox injections for nerve and muscle diseases.

By eliminating the barriers of time and distance, telemedicine can help address two serious problems for patients with difficult diagnoses and rare diseases. The first is misdiagnosis. The second is long waits for a proper diagnosis and effective treatment plan.

Doctors must often attempt an impossible balancing act with respect to quality, access, and cost. When they increase access to care, costs rise. When they cut costs, quality suffers. The rise of telemedicine during the pandemic spotlights a way to provide rapid access to affordable, high-quality care. Increasing both the frequency and the scope of virtual care nationwide would transform American health, improving the lives of patients who get sick during nights and weekends, those with chronic and mental health issues, and anyone who could benefit from virtual specialty care. It could save tens of thousands of lives and hundreds of billions of dollars each year.

How to Spur Adoption

Two changes would accelerate the implementation of telehealth and make care more cost-efficient and effective.

Integration. The health care organizations ranked highest on quality in national surveys are large multispecialty medical groups such as Kaiser Permanente, Intermountain Healthcare, Mayo Clinic, and Geisinger Health. All are built around teams of doctors who are linked through modern information technologies and work together in a coordinated fashion. According to the American Medical Association, more and more doctors are choosing to become employees rather than work for themselves. In fact, the share of U.S. doctors in private practice dropped below 50% in 2021. This movement toward employment and integration

Telemedicine can help address two problems for patients with difficult-to-diagnose and rare diseases: misdiagnosis and long waits for effective treatment.

enables doctors to share electronic health records, communicate across specialties, and leverage virtual care to help patients in ways that physicians in solo practice can't.

Capitation. Most providers in the United States work on a fee-for-service basis: They are paid for each test, procedure, and treatment they provide. The model incentivizes them to offer services whether or not patients need them. Logically, doctors whose income rides on the quantity of services they provide will resist any model that reduces ER visits, specialty referrals, hospital admissions, or surgeries.

An alternative to fee-for-service is a prepaid, value-based approach known as capitation. Widely supported by policy experts, it pays a risk-adjusted fixed annual amount per patient for all services provided. Although fee-for-service still accounts for most U.S. health care expenditures, capitation is gaining steam. For example, 42% of Medicare beneficiaries in 2021 were enrolled in Medicare Advantage programs, which use capitated reimbursement—up from just 13% in 2005.

More than 90% of Intermountain members belong to one of the organization's SelectHealth capitated insurance plans, while 95% of KP's 12.5 million members are in a capitated plan. The combination of an integrated system that uses telemedicine to provide superior care and a capitated pay structure explains why physicians in integrated prepaid medical groups embrace telemedicine solutions more enthusiastically than do community-based doctors.

The Destination: A Tele-Driven Health System

The ideal model for the future of U.S. medicine—one to replace or at least significantly augment today's fragmented fee-for-service approach—is *tele-driven health:* an integrated, prepaid, tech-enabled system in which teams of primary care and specialty physicians work together to deliver exceptional care. All the system's physicians have the same financial incentives to keep people healthy. They aim to provide convenient, expanded access via telemedicine. They are rewarded on the basis of the quality of care delivered to defined patient populations and the cost savings achieved.

The most logical candidates to drive the creation of such a system are employers, who currently provide health insurance coverage to 155 million Americans—nearly half the country's population. They bear the financial brunt of health care inefficiencies and have the most to gain from boosting quality and affordability.

Creating a tele-driven system won't be easy, but it's more possible now than ever before. Physicians are increasingly dissatisfied with the current system and open to alternatives. Before Covid-19 forced the issue, they were generally apprehensive about virtual care. But their positive experiences with it over the past two years have made them more receptive to expanding its use post-pandemic.

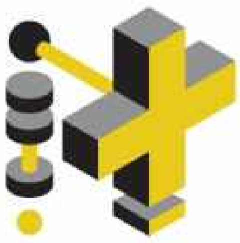
Businesses and doctors can take several steps to create tele-driven health systems.

Develop partnerships. Businesses will need to band together to achieve economies of scale and identify the right leadership in the surrounding medical community. Large national organizations such as the Purchaser Business Group on Health could lead the way. PBGH represents nationwide goliaths including Walmart, Costco, Microsoft, and Intel. It has already formed a division focused on reducing the costs of care; a tele-driven system would align with its current direction. Alternatively, local businesses could form consortia like the NorthStar Network in Rochester, New York, which aims to lower health care costs for all area employers.

KP and Intermountain's experiences suggest that 30,000 to 50,000 enrollees are needed to support the requisite hiring of primary care and specialty physicians. Few businesses have that many employees in a given geography or the financial ability to make the necessary changes themselves. But 15 or 20 companies together could achieve critical mass.

Businesses might wonder whether creating a new health system merits the time and energy that would be required. They should consider that rapidly rising medical costs will significantly affect their bottom lines. Even before Covid-19 struck, sparking supply chain challenges and exacerbating the shortage of health care professionals, experts predicted that health care spending would increase by 5.5% annually. Businesses can expect extremely high medical-cost inflation if nothing is done. The time to act is now.

Designate leaders. During the first wave of Covid-19, doctors replaced office visits with virtual ones seemingly overnight. They could do so because using video technology to deliver patient care is the easy part. The hard part is flipping



HEALTH CARE

If 30% to 40% of in-person specialist visits in the U.S. were replaced by telehealth consults, tens of billions of dollars annually would be saved.

health care's current delivery and reimbursement model on its head. And that can't happen without excellent leadership.

Having formed a partnership, whether through national or local associations, an umbrella organization must make two key hires. It needs a skilled financial leader from the payer side and an effective physician leader from the care delivery side. Together the two must figure out an appropriate employer contribution, how quality and access will be measured, and the breadth of services that will be delivered. They'll need to negotiate contracts with local hospitals, deploy IT systems, and purchase reinsurance to protect against the unexpected costs that a single patient with a massive injury or in need of a transplant can generate.

Design reimbursement and care delivery systems. When creating a new model of health care, the hard work is in the details, and because a tele-driven system will affect every aspect of care delivery, developing one entails thousands of decisions. Medical and financial leaders will need to design, shape, and implement the processes by which care will be delivered and paid for. The specifics of how best to do this are beyond the scope of this article, but here are two major considerations.

→ ***Reimbursement.*** A tele-driven system functions best when most if not all physicians and advanced practice providers (nurse practitioners and physician assistants) are salaried employees. With the majority of doctors and APPs in the United States now working for health care organizations (hospitals, medical groups, or insurance companies) rather than for private practices, this is now possible. But effective implementation will require a shift in how those organizations pay practitioners. Instead of rewarding them individually for the number of patient visits, tests, and procedures they perform, as in fee-for-service models, organizations should incentivize overall group performance. Telemedicine offers a big advantage here: Groups don't need to be colocated.

→ ***Care delivery requisites.*** A tele-driven system typically needs at least 20 primary care physicians and APPs on staff to facilitate 24/7 virtual coverage. It also requires a broad range of specialists, with at least one from each specialty available each day to give primary care doctors that missing 5% of information they may need to quickly resolve patient problems.

Physician staffing will need to radically change. Some 65% of U.S. clinicians today are specialists; only 35% provide primary care. A tele-driven system would reverse that ratio over time. Medical students' preferences for residency training would likewise shift.

When telemedicine is at the heart of care delivery, patients require fewer specialist visits; as noted, KP's experience suggests that primary care physicians can resolve 40% of problems with the help of telehealth-based specialists. What's more, collaboration among doctors and the improved overall health of patients mean fewer medical complications and surgical interventions. Finally, the availability of experts for rare and complex diseases facilitates correct diagnosis and treatment at the outset.

Kaiser Permanente and Intermountain Healthcare have adopted many of these elements, including a significant degree of capitation, sophisticated technology, and right-sized staffing ratios. But barriers remain for both, limiting their ability to achieve full-fledged tele-driven systems. KP still draws heavily on brick-and-mortar facilities, which require large capital investments. Intermountain depends on doctors, particularly in rural areas, who are paid on a fee-for-service basis and care for people insured through a variety of plans. Still, both organizations could move rapidly toward full-fledged tele-delivered systems if the businesses buying health insurance demanded it.

Lowering medical costs while maximizing the health of employees is the best way for American businesses to stay profitable and maintain a loyal workforce. The pandemic has highlighted the opportunities that exist and the problems that will worsen if nothing changes. Done well, the transition to a tele-driven health system could be accomplished in a few years. If left to chance, it could take decades—if it happens at all.

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DIVERSITY

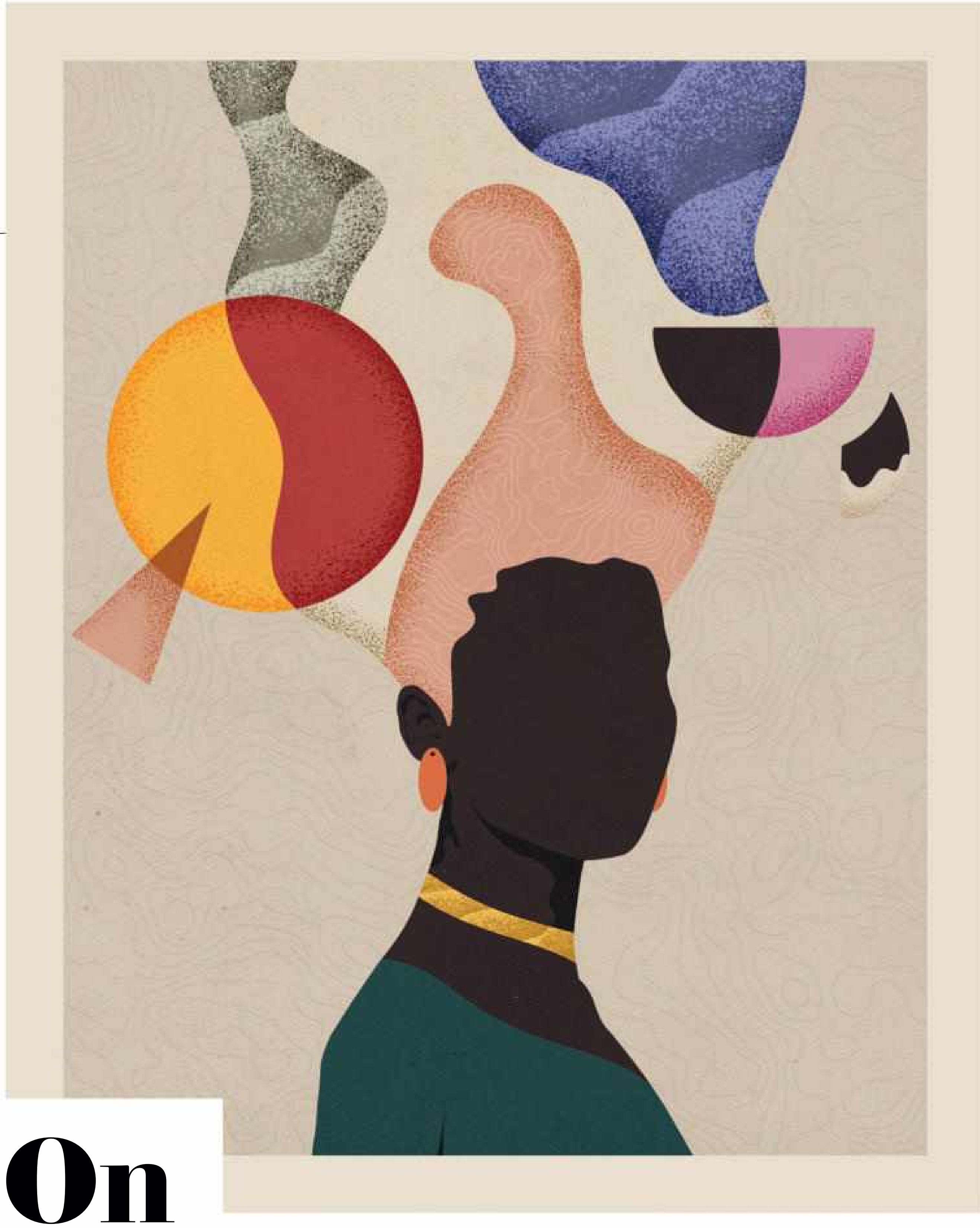
HOW TO BUILD AN ANTI-RACIST COMPANY

AUTHOR
James D. White
Former CEO, Jamba Juice

A playbook for fostering diversity, equity, and inclusion

ILLUSTRATOR NIYI ADEOGUN

DIVERSITY



IDEA IN BRIEF

THE IMPETUS
Following the murders of Breonna Taylor, George Floyd, and too many others, and the wave of protests that ensued, executives across America have an urgent mandate to combat systemic racism and bring full diversity and inclusion to the organizations they lead.

THE OPPORTUNITY
As businesses rebound from pandemic-related disruptions, leaders have a brief window in which to reimagine how they approach the workforce.

THE STEPS TO TAKE
Leaders should embark on a listening tour across their organizations. They can then seek the support of senior executives, audit the culture, document what's already happening to advance diversity and inclusion, and establish ways to measure progress. Finally, they should form "action learning teams" and develop and communicate an action plan.

On April 14, 1967, Martin Luther King Jr. made a powerful observation in a speech titled "The Other America," addressing the racially charged violence then sweeping the nation's cities. "A riot is the language of the unheard," he said, and he challenged his audience to think hard on the question "What is it that America has failed to hear?"

After the 2020 murders of Ahmaud Arbery, Breonna Taylor, and George Floyd and the wave of protests that followed, business leaders began asking similar questions: What is it that corporate America has failed to hear? What has my own company failed to hear?

I soon found myself being approached by countless executives wanting to combat systemic racism and seeking advice about how to do so. As a Black man with three decades of

First engage with staff members to learn what's in their hearts and minds. Then make clear that your company is renewing its DEI commitment—or embarking on one.

experience in the corporate world, I've gained a deep understanding of how to initiate and implement diversity, equity, and inclusion (DEI) agendas from the top. With my daughter Krista, I wrote the book *Anti-Racist Leadership,* from which this article is adapted, to share what I've learned.

In what follows I provide a playbook for getting started, drawing from my experience as an executive, a board member, a CEO coach, and an adviser and from discussions with others who have taken on and nailed transformative change. It comprises seven steps: listening to and learning from colleagues across the organization; enlisting senior executives to the cause; auditing the culture; documenting what's already being done to foster diversity and inclusion; establishing benchmarks for measuring progress; building "action learning teams" to spearhead the effort; and developing and communicating an action plan.

1 ACTIVELY LISTEN AND LEARN

You can start by setting up a formal process for taking the organizational pulse, whether in town halls attended by thousands of employees, or in roundtable discussions with 15 or 20 at a time (be sure to include people from every level), or both. Think of this as a listening tour.

You might kick off a town hall with a discussion of company values led by you or another senior executive. It can be helpful to bring in a guest expert or a panel to talk about topics related to diversity and inclusion. After the discussion invite employees to comment and ask questions.

Whatever format you choose, you have two objectives. The first is to engage with staff members to learn what's in their hearts and minds. Use the sessions to give voice to those who have been voiceless within your organization.

You can't expect a breakthrough discussion right out of the gate. But these forums demonstrate that you're serious about shifting the culture and allowing people to speak up safely. You can invite ongoing feedback through anonymous surveys, Slack channels, or messages sent to a point person in HR, who can distill and share the findings with senior management.

Lisa Wardell, the executive chair and a former chair and CEO of the Chicago-based workforce solutions provider Adtalem Global Education, began holding listen-and-learn meetings well before the events of 2020. She has set up several venues for employees to share their thoughts and says that by now people are comfortable telling her what's on their minds. After a series of companywide discussions about Black Lives Matter, one employee wrote, "My spouse is a police officer, and I don't appreciate your talking about police brutality this way." Wardell's reaction: "I think that's a brave person."

When I came to the global smoothie chain Jamba Juice as president and CEO, in 2008, I held town halls and roundtables to get a sense of the culture. I wasn't sure how comfortable anyone would be speaking candidly with a new CEO, so I passed out index cards and asked people to fill them out anonymously, indicating what they most wanted me to change and what they didn't want changed.

Your second objective is to make sure everyone understands that your company is renewing its DEI commitment—or embarking on one. Be honest about where things stand and concede that not all is right. In *Caste: The Origins of Our Discontents,* an examination of racism throughout U.S. history, Isabel Wilkerson writes that to effect a transformation, you must identify old ills, much as a doctor needs to know a patient's medical history to provide successful treatment.

Throughout, you should do much more listening than talking. When you do speak, make it personal: Describe your life and career. If you haven't previously discussed race and inclusion with your staff, that's OK; just be clear about what you do and don't know. I've seen many leaders establish authenticity by admitting, "I'm on a learning curve myself." You might initially be uncomfortable with such conversations, and that's OK too. Exploring social justice is more about asking questions than about providing answers.

How can you demonstrate a genuine desire to understand what it's like to be powerless or marginalized? How can you assure low-level employees that you intend to do right by them? Start with a brief story about what brought you to the room. I share my humble beginnings and say that although my mother always saw my potential, employers didn't recognize it in the same way. If you come from privilege, acknowledge it. Explain how you came to realize that fact and the imperative for the company to become more inclusive. Then ask targeted questions, such as Have you experienced discriminatory behavior at this organization? and How can we make this a better place for you?

Let employees know that you'll take their comments to heart and set a date to share your plan for working together toward a more inclusive culture. Emphasize that it may take two or three years to achieve full inclusivity—but you'll set milestones along the way. Those might include hitting targets for representation at the executive level, increasing the sense of belonging reported on employee surveys, or improving supplier diversity by a certain percentage.

2 ENLIST AND ALIGN SENIOR LEADERS

Your DEI efforts must reach people at multiple levels; success will require everyone's commitment. Share the findings from your listening tour with senior management and the board. When a transformation fails, it's often because buy-in stopped at or near the top. Another high-priority item came up, and DEI took a back seat; or senior leaders resisted change; or the CEO failed to ensure that management did the hard work necessary. You must weave DEI throughout the organizational fabric so that it becomes a fundamental part of how you do business.

Alignment generally starts with making the business case for DEI. Numerous studies show a strong correlation between diversity and performance. Remind managers that diversity helps a company solve problems and drives innovation.

With the business case established, your role is to lead the conversation. I once worked with CEOs in the J.E.D.I. Collaborative, a group of executives in the natural-products industry who are dedicated to advancing justice, equity, diversity, and inclusion. As we brainstormed ways to make such conversations more comfortable for all parties, many creative ideas emerged. For example, Blair Kellison, the CEO of the organic tea company Traditional Medicinals, made Ijeoma Oluo's *So You Want to Talk About Race* required reading for his management team. This simple but profound book, he says, provided them with common talking points, language, and ideas.

These conversations give senior leaders an opportunity to educate themselves. Make it clear that there will be rewards for those who carry out your DEI strategy—and consequences for those who don't. Tie a percentage of executive bonuses to meeting DEI goals, which should include increasing diversity right where you're all sitting: in executive suites and the boardroom. The more diverse your top ranks are, the more likely senior teams are to embrace an intentionally diverse culture. The leadership advisory firm Egon Zehnder has found that at least three underrepresented voices are needed in a boardroom to change the dynamics. "Rather than seeing one person as the token stand-in," it wrote in its 2020 Global Board Diversity Tracker report, "a larger group allows the individuals to be heard for their perspectives rather than for their perceived identity."

When I started at Jamba Juice and described my DEI agenda, several executives felt they wouldn't be comfortable in the environment I intended to create. Some left within 60 days—and that was fine with me. When you initiate change, you'll inevitably encounter resistance. I gave everyone the chance to get involved—or to pursue a different future.

3 AUDIT THE CULTURE

Next you need a formal process for determining how your culture is perceived by its stakeholders. Think of an audit as a kind of archaeological expedition. You have known artifacts in the form of written statements: "Our Mission" and "Our Values." But you must dig to learn how they are playing out. Your audit will ground your initiative in facts: policies, people, promotions, the pipeline, how high into the ranks efforts have reached. If you are in retail or the restaurant industry, for example, you probably have great diversity in the frontline workforce but less at the middle management level.

An audit can also reveal ceilings on advancement for specific demographics. Many companies engage third-party firms to conduct pulse and employee engagement surveys, which can provide a snapshot of how the company looks to workers, customers, suppliers, and others in the value chain. The legal scholar Joan Williams has created a Workplace Experiences Survey that identifies patterns of racial and gender bias, where they're playing out, and how they affect employees' feelings about belonging and intent to remain.

At Jamba Juice, I used an adapted version of the Gallup Q^{12} employee engagement survey and gathered anonymous responses to statements such as "I feel that I belong here," "I have the tools to get my job done," "I have a best friend at work," and "My compensation is commensurate with [that of] others performing similar jobs." Those are critical measures of people's comfort. The survey also asks about ethnicity, sexual orientation, gender, age, education, job level, disabilities, and so on. That data can reveal whether your organization has patterns of exclusion. Do most Black employees say they're not getting the workplace tools they need? Do women of color feel overlooked for important assignments?

Many CEOs I've worked with were surprised—sometimes positively, sometimes negatively—by their audit results. I tell them that whatever they learned, it's OK. One wholesale

> I recommend publicly announcing any activities that will affect your larger community, such as sponsoring inner-city education or sports programs.

distributor found that several of its facilities had highly inclusive practices—but several didn't. That's precisely what an audit is for: to identify weak spots so that you can course-correct. The distributor studied how things were done in its inclusive facilities and spread best practices companywide.

Some CEOs make their learning and change efforts public. Bracken Darrell, the CEO of the computer peripherals and software manufacturer Logitech, took stock of society and his company and realized that he could do much more to be a change agent: He could facilitate the growth of small supplier businesses owned by women and people of color. So he issued a public statement—"We believe our supply base should be reflective of the diversity of the communities and markets that we serve"—and committed to growing the number of Logitech suppliers owned by members of under-represented groups. Statements like Darrell's encourage others to improve as well.

CEOs who prefer to keep a lower profile can communicate their intentions internally only, but I recommend publicly announcing any activities that will affect your larger community, such as training disadvantaged students, distributing food to the needy, or sponsoring inner-city education or sports programs. Todd Schnuck, the chair and CEO of the St. Louis–based Schnucks supermarket chain, has spearheaded numerous efforts to support underserved communities in the area. A visible statement of the company's values is a T-shirt with "Unity Is Power" on the front and "We Stand Together Against Racism" on the back. The company has created a foundation to address food insecurity and is investigating how to increase food donations to the neighborhoods that need them most. It also made a $100,000 investment in fighting education disparities by providing computers and Wi-Fi to disadvantaged students studying from home during the pandemic.

4 DOCUMENT WHAT YOU'RE DOING NOW

Once you know how your stakeholders see your culture, you can examine how their perceptions mesh with reality. That means assessing your existing DEI programs to see what's effective and what needs to improve.

Don't judge your findings; compile them in a strictly factual "state of the organization." How many people of color are in management? How many LGBTQ+ people? Take a hard look at your hiring practices. Do you typically have a diverse slate of candidates? Do you mandate one? What are the processes for promotion? If you have a list of high potentials, how much diversity is on it? Third-party resources can help with the process and with assessing how your firm is doing relative to your industry as a whole. Document all your current programs, best practices, and gaps. Then set a destination and start taking steps to reach it.

Target's CEO, Brian Cornell, has been vocal about making his company a force for social change. As part of that effort he assigned Laysha Ward, the company's chief external engagement officer, to strengthen the Target brand with outside stakeholders. Ward had run the Target Foundation along with various sustainability programs and community outreach initiatives. In early 2020, in an interview with *Black Enterprise* magazine, she voiced an insight that would serve all business leaders well. "I wish I'd learned sooner it's not a sign of weakness to ask for help and that I didn't have to have all the answers," she said. "We all get better together."

Target has documented the racial and gender breakdown of employees at all levels of the organization. A detailed assessment of African American representation in its ranks showed that the company was lagging. In 2020 Cornell issued a public statement revealing that of Target's nearly 350,000 team members, 58% were women and about half were people of color—but in the leadership ranks just 42% were women and 24% were people of color. On the positive side: Since 2015 Target has doubled the share of company officers of color. A third of its board members are women, and nearly half are Black or Latinx. Cornell has committed to increasing Black representation companywide by 20% by 2023 through a sharper focus on diversity hiring, retention, and advancement. He has doubled down on programs including cross-functional mentoring, STEM leadership-development training, and more than 100 employee resource groups. Performance evaluation and compensation for top leaders are closely tied to DEI and turnover metrics.

Here's how *not* to communicate your progress: In June 2020 Wells Fargo CEO Charles Scharf asserted in a memo later published by Reuters, "There is a very limited pool of Black talent to recruit from." His remark generated backlash, and he apologized for "making an insensitive

Circulate your action plan throughout the company so that everyone knows you're building an intentional culture, step by step.

comment reflecting my own unconscious bias." If he had instead written, "Others are doing better at this, and we've got to do more," he would have signaled that he wanted to figure out how to recruit more-diverse talent—because in fact Scharf was actively working to boost diversity. So lay out exactly what your company has done to achieve a workforce that looks more like society at large. If you're falling short, be up-front about that. Then tap resources that can help you broaden your recruitment practices, such as the multicultural conference AfroTech and the nonprofits Management Leadership for Tomorrow, the Executive Leadership Council, and Prospanica.

5 ESTABLISH BENCHMARKS

You've listened. You've brought senior management on board. You've audited and documented the state of diversity in your organization. Now it's time to measure your progress against benchmarks—not just internal ones but also those that will show how you stack up against competitors, other businesses in your region, and society at large. The idea is to gauge your progress, quarter by quarter and then annually, quantifying how you are doing in recruiting, promoting, and retaining a diverse workforce.

Set specific goals. What do you want the demographics of the company to look like? By when? What hiring practices will you instill? How many women and people of color do you want in senior management and on the board, and by when? How do you want people to experience your company? How will you get feedback from your workforce? How will you engage your community?

Some companies form working groups to monitor their benchmarks, ensuring that they will hold themselves accountable over the long term. Schnucks holds weekly meetings to that end. The working group meets with the board monthly to review progress toward DEI targets and, when necessary, to refine them.

6 BUILD ACTION LEARNING TEAMS

The British professor and management consultant Reginald Revans pioneered the concept of action learning in the 1940s, and it's been used in myriad ways in the business world. It involves a small group that works on well-defined problems, takes action, and learns as individuals and as a team. It helps the group develop creative, flexible solutions. Throughout my career I've found action learning teams to be the most inclusive way to crystallize an agenda, solve problems, reshape culture, and meet strategic challenges. They can provide a strong foundation for your transformation to greater diversity and inclusion. Directives must come from the top, but a range of voices will actively engage in building the future. Members of such a team will probably be bolder about proposing big ideas than if they were flying solo.

PepsiCo's Roger Enrico and GE's Jack Welch were proponents of action learning teams. In *The Leadership Engine,* Noel Tichy describes how they taught others to lead by encouraging them to tackle big challenges and own the outcomes. Enrico would take nine executives at a time through five days of action learning, discussing his experiences and coaching them on their personal operating styles. He had each one take on a significant "grow the business" project, coached them on objectives and implementation, and sent them off to work on their projects, returning several months later to review progress. Welch taught classes in leadership every few weeks at GE's Crotonville Management Development Center. He would ask participants in the most senior program, "If you were named CEO of GE tomorrow, what would you do?" That would "orchestrate a no-holds-barred discussion in which he jousted with participants and honed their analytic abilities and leadership instincts by having them also joust with each other," Tichy writes.

To build an action learning team for your DEI initiatives, assemble 15 to 20 people from multiple areas of the business, handpicked for their problem-solving mindsets and diverse backgrounds and experiences. Include managers from several levels and encourage them to think big: The goal is nothing less than transforming your culture to fully embrace DEI. At Jamba Juice, I created teams that were diverse in terms of work experience, background, ethnicity, and gender and also included employees who tended to be overlooked. Both tactics can ensure that the teams are more diverse than your workforce as a whole.

In my experience, the most effective action learning teams include strong representation from middle managers, who are key to dismantling systemic barriers. They typically

control which junior staffers get the high-profile assignments that will put them in line for larger roles—and their bias helps explain why many diversity initiatives fail.

Action learning teams should work closely with the CEO, the CHRO, and other leaders. Assignments usually stretch over two or three months, although some groups achieve results in as little as 30 days. Teams should meet weekly to examine the issues they've been charged with, determine objectives and priorities for addressing them, and recommend how to proceed. Each team will ideally have just one or two critical items on its docket and be given a time frame for issuing recommendations. I've found that teams almost always exceed expectations if they have a clear assignment and parameters, with well-defined processes, check-ins, milestones, and deadlines.

I'm currently helping the Bay Club Company, an operator of luxury sports and fitness resorts in California, with its action learning program. CEO Matthew Stevens launched a diversity task force in the summer of 2020; since then company leaders in four locations have formed teams that are using action learning principles to answer the question How can we create an environment where people of all backgrounds are celebrated and can thrive? They have come up with several solutions, including a video for employees that conveys the importance of an inclusive environment, a training series, "safe space" fireside chats about DEI issues, and a column in the company newsletter that celebrates employees' varied ethnic backgrounds.

7 DEVELOP AN ACTION PLAN

Now it's time to put together everything you've learned. That means drawing up a blueprint for change. Set goals for each quarter of the coming year. In the first quarter, plan to launch an executive diversity council. It should include you, the head of HR, the chief diversity officer, others on your diversity and inclusion teams, and leaders from key business units or divisions. Other Q1 goals might include a community engagement initiative, increased diversity among your suppliers, and a communications strategy to keep employees informed about your plans to hire and promote more people from underrepresented groups. In Q2 consider launching a broader DEI council with specific roles, responsibilities, and deliverables. In Q3 you might form employee resource groups for Black, Latinx, female, and LGBTQ+ associates. And in Q4 you might initiate a comprehensive DEI training program and develop a strategy for evaluating and supporting supplier diversity over the long run. These are just examples; each company's plan should be tailored to its most pressing needs.

Your plan should also include commitments for the next two or three years. This is the place to declare concrete representation goals. You might state, as companies including Target and Starbucks have, that you will increase the share of Black and Latinx senior managers by a certain amount by a certain year and increase the share of Black, female, and LGBTQ+ board members by a certain amount the next year.

Circulate your action plan throughout the company so that everyone knows you're building an intentional culture, step by step. Continue to hold town halls and smaller meetings, and use newsletters and other internal forums to update employees on your progress. If your blueprint for change reaches throughout the organization, its goals will be a natural extension of your business strategies and eventually become an integral part of your DNA.

ACHIEVING TRUE DEI is hard. It involves a new approach to everything from recruiting to giving assignments to determining what makes someone a cultural fit. It generally takes several years of intentional change. It means applying analytics as rigorously as in every other aspect of the business. And it requires leaders who are fully committed to creating a diverse, anti-racist culture at every level of the organization.

As businesses rebound from pandemic-related disruptions, leaders have a brief window in which to reimagine how they approach the workforce. Building diverse companies by design means creating great workplaces—for all.

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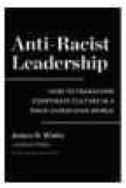

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RISK MANAGEMENT

A Better Approach to Avoiding *Misconduct*

Use nudges to complement traditional methods of risk management.

PHOTOGRAPHER SUZANNE SAROFF

ABOUT THE ART
The still-life photographer Suzanne Saroff often arranges flowers and everyday objects to create unexpected and evocative images.

Despite substantial regulatory reform in the aftermath of the 2008 financial crisis, financial firms have continued to suffer from fraud and other types of ethical misconduct.

As a result, by 2020 they had collectively paid out more than $400 billion in fines. One 2019 Harvard Business School study of *Fortune* 500 companies—based on a sample of firms on that list—found that on average, they experience more than two instances of internally substantiated misconduct each week.

It's becoming increasingly clear to many experts in risk management that the traditional approach to preventing wrongdoing in companies—imposing formal rules and investing in a strong compliance function to ensure that institutions, managers, and employees adhere to them—cannot by itself protect firms. That is why over recent years—spurred by regulators, including the Federal Reserve Bank of New York—financial institutions have begun adopting a complementary approach that embraces a behavioral dimension. This approach, sometimes known as behavioral risk management, acknowledges that behavior in the workplace is driven by and factors in people's professional context—such as the teams employees work on, the goals they have to achieve, the direct leadership they receive, and the processes they work with.

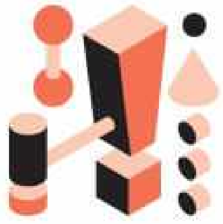
As we will demonstrate, behavioral risk management involves identifying behavioral drivers and addressing them by making changes in processes or organizational contexts. These can take the shape of "nudges" (a term coined by the behavioral economists Richard Thaler and Cass Sunstein), which may seem small or even trivial but can have profound effects on behavior.

IDEA IN BRIEF

THE PROBLEM
Despite reforms in regulation following the 2008 crisis, financial firms have continued to suffer from ethical misconduct and have collectively paid out more than $400 billion in fines since then.

WHY IT HAPPENS
The traditional approach to preventing misconduct—formal rules and a strong compliance function—is based on the assumption that people are rational agents. But behavior at work is driven by subjective biases and professional contexts.

THE SOLUTION
Financial institutions are increasingly acknowledging people's behavioral drivers and managing them with changes—or "nudges"—in processes or organizational contexts. These changes may seem small, but they can have profound effects on behavior.



RISK MANAGEMENT

What's New About Behavioral Risk Management?

Standard approaches to managing risk, such as enterprise risk management (ERM), assume that actors are rational. That assumption is certainly questionable: A considerable body of behavioral science research has demonstrated that human judgment is heavily skewed by biases. For example, people routinely overweight the importance of data that is recent or that confirms their prior beliefs.

Another flaw, perhaps more troubling, is that the traditional approaches create risks of their own. When people feel that mistakes, even well-intentioned ones, will be met with blame and punishment, they tend to cover up their errors—a behavior that is exacerbated if they sense that they are under surveillance. Employees see punitive policies as a signal that they are not trusted, and research has shown that an atmosphere of distrust increases rule breaking.

In a behavioral approach to managing risk, managers analyze processes and organizational structures to identify the elements that trigger risky behaviors. Consider, for instance, a securities trading team. Let's suppose that it is composed mostly of overconfident professionals (typically men, who are more likely than women to hold unrealistic beliefs about future financial performance). If the team is headed by a manager with low ethical standards, team members are more likely to morally stray. And if the compensation system rewards individual sales targets, team members are likely to feel envy, which will make them more likely to justify unethical behavior. Such a team may also have a strong group identity, contributing further to a climate of moral laxness.

The traditional way to manage the behavior of this team would be to institute a set of rules, mandate periodic training, and then rely on oversight (such as recorded phone lines) and other mechanisms (such as anonymous whistleblower hotlines) to ensure that people follow the rules. The problem is that those actions do nothing to address the behavioral profile of the team members or their incentives for behaving in risky ways. A behavioral scientist would tell you that any team with the characteristics of the securities trading team just described is highly likely to engage in risky behavior, no matter what rules are imposed, and that surveillance may only make matters worse. Even well-intentioned employees may show undesired or high-risk behaviors when they work with processes that encourage those behaviors or in areas where culture and context push behavior in a negative direction.

Several major European financial institutions—NatWest Group (formerly RBS), ING Group, and ABN AMRO, to name a few—have implemented behavioral approaches to managing risk, primarily by creating teams that analyze the root causes of risky behaviors. In recent years non-European institutions, including HSBC, Standard Chartered, and Royal Bank of Canada, have followed suit. In our work advising these and other institutions, we've found that most financial services firms take a two-step approach to implementing behavioral risk management.

Identify and Understand the Hot Spots

The first step is to identify the processes and units in the organization where negative outcomes of employee behavior are most likely to occur. Companies can begin by exploring available data such as employee engagement survey results, client satisfaction scores, and the number of registered policy breaches. They can supplement that information by generating new comparative data on, for instance, team cultures, to further refine their search.

Processes: behavioral insights scans. These scans help managers identify what is getting in the way of good decision-making. They involve multiple in-depth interviews with key players across a selected process, along with observations of work situations. Let's look now at how one worked at a European banking organization that was a client of ours.

The bank had designed and implemented a process to enable its business risk managers, positioned on the first line of defense, to assess the maturity of their units' nonfinancial risk management in areas such as cybersecurity, climate, operations, and money laundering. The managers were asked to give their units a maturity score. Next colleagues from the risk division, the bank's second line of defense, assessed the work of the business risk managers and agreed or disagreed with their scoring. In any case of disagreement, the business risk manager had to revisit the analysis. The bank wanted to know whether the design of the process—in particular, the two levels of scoring—contributed to the accuracy of the business risk managers' assessments. Our firm was brought in to answer that question.

Over an eight-week period we conducted 16 semistructured interviews with business risk managers, second-line reviewers, and management. We asked questions such as "Who shows ownership of this process in reality?" and

"When was the last time it was difficult to work in accordance with the process? Why, and what happened?" The findings from those interviews were supplemented by a desktop review of documentation on the assessment process and research on the validity of self-assessments. We also conducted two shadowing sessions during which a business risk manager detailed all the steps in the assessment process through screen sharing, and observed two management meetings at which the results of the assessments were discussed.

The scan revealed two factors that might bias managers' assessments of the quality of their nonfinancial risk management. First, the requirement to assign a score at the end of the process created an implicit goal of achieving the highest score possible. As a result, managers might fail to report key negative evidence or at least present it in such a way that the risk-division supervisors would discount it. A large body of behavioral research shows that people's desire to achieve a quantitative goal can cause them to ignore compliance or integrity standards expressed as qualitative goals.

Second, because the risk-division supervisors were looking over their shoulders (and in some cases rescoring their work), the business managers had disengaged from the process. This effect was most likely exacerbated by a "not invented here" perception of the process and in-group–out-group bias, which is well-known to encourage noncooperative behaviors. As one business risk manager commented, "Not once has the second line come to us, appreciated how we run the business. They have no clue what to focus on, and hence the process is a total waste of our valuable time."

When our report was presented to the chief risk officer, he indicated that he had been unaware that the design of the process elicited these unintended and undesired behaviors and perceptions.

Units: behavioral risk reviews. These reviews produce granular insights into behavioral patterns and drivers that may lead to future problems in high-risk business teams or units. A good example is provided by one global financial-services firm we advised. The firm was under heightened regulatory scrutiny as a result of reoccurring unethical and illegal actions in its capital markets business unit. Clear communication of the rules, a strong control environment, and enhanced disciplinary measures had proved ineffective at reducing the incidence of misconduct.

Over a period of three weeks we had about 50 one-hour confidential conversations with employees across the various teams in the unit (a randomized sample that included 20% of the total staff) and with employees who dealt with or supported the teams in the area and provided an outside-in perspective. Our goal in those conversations was not to understand how employees evaluated their professional context but, rather, to hear descriptions of how they reacted to that context. For example, we asked traders to describe in detail how their desk heads responded to mistakes made in real-life situations—not to evaluate the effectiveness of the desk heads' management.

Alongside those one-on-one conversations, we asked all employees in the unit to complete a short online survey containing 20 statements; observed two teams at work for three hours; and reviewed management data (such as performance, risk, and HR information) and policy documents (on strategy, governance, performance management, consequence management, and codes of conduct). We tested the qualitative and quantitative data against each other and against research findings.

The review revealed a number of factors that were causing employees to act unethically or illegally. To begin with, we found that direct line managers responded to situations in which things had unintentionally gone wrong by severely blaming individuals without taking context and motivation sufficiently into account. For example, when one deal was called off by a client owing to unexpected financial problems on the client's side, the employee who had negotiated it was marked down and "named and shamed" in a team meeting, with no mention of the relevant circumstances. That kind of reaction can drive behavioral risk: When mistakes are seen as the responsibility of individual workers, the resulting anxiety reduces people's willingness to comply with organizational regulations.

Second, employees perceived the decisions and procedures regarding promotions as unpredictable and inconsistent, saying that they felt they had little or no influence on the outcome: *I see people getting promoted who are not performing; I feel it is completely random.* To be sure, the randomness did mean that people might be less likely to break rules to boost their performance figures, but perceived unfairness is itself a driver of misconduct. Research demonstrates that it elicits a variety of dysfunctional workplace behaviors, including retaliation and noncompliance with guidelines.

The granularity of the insights allowed our client to adopt a targeted mitigation strategy, directly addressing the specific drivers that needed improvement rather than seeking to improve the culture of the business unit in a broader sense. It defined distinct categories of undesirable behavior, put them in context, and assigned appropriate sanctions to each. For example, an employee who failed to attend an online training session would initially receive a warning instead of a penalty (which would previously have been the result). Small changes of that sort helped reassure employees that they would be fairly treated by their managers. Meanwhile, senior managers went through training to increase their capabilities in dealing with perceived unfairness and responding to negative outcomes.

Find Solutions

We help companies address the problems revealed through behavioral insights scans or risk reviews in two ways. The first is a workshop in which we lead employees who are working in specific areas or processes to identify simple nudges that would change their handling of specific behaviors. Often referred to as *nudge labs,* these workshops are a staple of behavioral research and consulting and involve various standard brainstorming and gaming exercises. (For an extended description of nudge labs, see "Lessons from the Front Line of Corporate Nudging," by Anna Güntner, Konstantin Lucks, and Julia Sperling-Magro, in the *McKinsey Quarterly* online.)

We can illustrate this approach with an example from ING Group, where a behavioral insights scan revealed a lack of common goals and collective identity across teams working to mitigate the risk of financial crime. During a subsequent nudge-lab session, employees, behavioral scientists, and game experts collaborated to develop nudges that stimulated the desired behaviors. Their design drew on basic gaming principles such as reciprocity and shared goals, which encourage people to "keep playing" and collaborate voluntarily—in this case, to keep following the process for mitigating financial crime risk.

> When mistakes are seen as the responsibility of individual workers, the resulting anxiety reduces people's willingness to comply with organizational regulations.

For instance, the ING team developed an interactive email-signature banner, aimed at generating a sense of shared identity among the people working across the process. The banner combined the names, profile pictures, and titles of those involved in a customer file. ING then tested the intervention in a pilot that lasted several weeks. The results were promising: Using the email signature improved the level of trust among the employees involved, as determined by a brief questionnaire, and also reduced the number of unnecessary emails. The nudge developed in this example is currently being scaled up across the organization.

Another effective intervention is what we call *system-in-the-room* sessions. These are interactive workshops designed for senior leaders, with the aim of creating a shared and complete understanding of the challenges involved in managing identified behavioral risks from the perspectives of all stakeholders. With that understanding, the team can design effective solutions accordingly. Typically we hold two or three one-day sessions that bring together everyone who is involved in a process that needs improving. We usually get up to 25 people in the room, ranging from executives, country heads, global process owners, and tech experts to frontline staff. Having everyone in the room makes it difficult to point fingers and forces people to acknowledge the effect of their own actions on other teams.

Take the case of one of our clients, another global financial-services firm. The client had undertaken a behavioral risk review, which revealed that a lack of ownership and insufficient collaboration across units and functions were key risk drivers for financial crime. We led the client through brainstorming steps that moved from defining problems to identifying solutions with a series of "What if?" questions. This approach, inspired by design thinking, is very effectively used in many business processes, from product development to strategy making. (See, for example, "Bringing Science to the Art of Strategy," by A.G. Lafley, Roger L. Martin, Jan W. Rivkin, and Nicolaj Siggelkow, HBR, September 2012.)

One fix we identified was the introduction of weekly 10-minute system-update sessions between the risk management team and senior leaders, akin to total quality management circles. The updates were tacked on to regular meetings and thus did not disrupt anyone's schedule, but they have proved a useful forum for flagging behavioral problems early in the risk management process.

The sessions were themselves part of the solution: They resulted in an increased and lasting feeling of interconnection and belonging, contributing to a sense of ownership and effective collaboration around the process involved. As one senior manager put it, "The session is an excellent way to get to know each other better and to connect different perspectives. This increases the willingness to work together constructively and to find great solutions which are actionable and ask little effort whilst having high expected impact."

A FORWARD-LOOKING risk approach that informs the dialogue between financial institutions and regulators is highly appealing. For behavioral risk management to succeed, however, courageous leadership is required, in part because the approach goes against the grain of the numbers-driven financial sector. This is an industry where regulators embrace a "show me proof" mindset, encouraging financial institutions to put forward evidence demonstrating that they are in control of risk.

Behavioral risk management, in contrast, is preventive in nature and reveals uncomfortable truths and working-floor realities using qualitative as well as quantitative data. And because it takes a root-cause approach, addressing high-risk behaviors before problems arise, providing incontrovertible evidence of its effectiveness is challenging. But what emerges from a well-structured behavioral-risk-management initiative will unquestionably be improvements in employee behavior that considerably reduce the probability of distress or government sanction. For organizations that live by trading off risk and return, such a simple exercise in optimization should be a no-brainer.

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SALES

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Stop Selling. Start Collaborating.

The secret to fostering lasting client relationships

ILLUSTRATOR **RYAN GARCIA**

SALES

In 2007 Sonos, a manufacturer of luxury wireless-audio systems, struck a deal with Best Buy to sell its products at more than 600 retail locations across the United States. Sonos would be spotlighted in Best Buy stores with live, interactive, multizone demonstrations. In return Best Buy would gain access to the best-reviewed new audio systems in the world. The agreement was a victory for both companies. But 10 years later profit margins were eroding; tension had developed around Sonos's last-minute promotion changes, pricing issues, and what Best Buy perceived to be a lack of strategic alignment; and Sonos was worried about the departures of key Best Buy personnel and how they would affect the partnership. In 2018, in a cramped, windowless room in Minneapolis, a Best Buy executive gave the Sonos team a de facto ultimatum: Come up with better terms for the partnership, or there was no good reason to continue the meeting.

The two companies framed the conversation in that meeting using a tool I had developed during my two decades as a sales practitioner, researcher, and consultant. It prompted the members of their teams to ask and answer questions such as: What are our combined strengths and weaknesses? What does the other party think of us? What can we do to improve the relationship? The discussion grew heated. The teams were brutally critical of each other. About halfway into the conversation, the Best Buy executive became frustrated. "What is the point of this exercise?" he asked. "We only need a few actions to improve our margins; otherwise we shouldn't waste each other's time."

People from both sides, many of whom had been silent during the blunt back-and-forth, began arguing in support of continuing the exercise. After years of narrow discussions focused on tactics and pricing, it was the first time the two teams had openly spoken about larger issues of strategy and collaboration. Criticism was better than silence, they reasoned. At one point a Best Buy supply chain executive argued that two recommendations Sonos had made—increased process efficiency and more-frequent communication—would have a greater positive impact on Best Buy than a discount would. After that the Best Buy team agreed to continue the meeting—without an offer from Sonos to cut prices. "Aligning for further growth as if we were one firm" became the two teams' motto for a jointly developed road map. One year later both teams attributed improved business alignment and above-average growth rates to the exercise and the resulting strategy shift.

Many failing sales organizations offer value propositions that prioritize their own products and services over collaboration with buyers, taking a one-sided perspective that lacks critical customer input. Because that approach addresses only one aspect of a relationship, it seldom delivers a comprehensive, mutual strategy. Too many account plans consist of dozens of PowerPoint slides documenting sales history, a competitive landscape, and a future sales pipeline; when it comes to strategy, the content is often alarmingly thin.

High-performing relationships start with a broader conversation about how sales teams can help clients create value through new initiatives—not by fitting existing products into an existing strategy. That insight led me to

Too many account plans consist of dozens of pages on sales history, a competitive landscape, and a future sales pipeline but lack a clear strategy.

IDEA IN BRIEF

THE PROBLEM

Only 15% of sellers use value creation to differentiate themselves from competitors.

THE REASON

Most sellers focus only on what existing products can do for customers and don't try to get critical customer input. Without such validation, account plans are mere wish lists.

THE SOLUTION

The triple fit canvas *can help sellers evaluate where relationships with clients have deficits so that the two organizations can collaborate to identify valuable opportunities for future innovation and growth.*

The triple fit canvas expands a limited, product-centric view to encompass a customer-centric perspective. It shifts the focus to creating new opportunities for mutual growth.

consider two questions: What are the building blocks of successful business relationships? and How can companies create future-proof relationships that will survive times of uncertainty?

In research conducted from 1997 to 2020, I identified theoretical and empirical answers to those questions: Good business relationships have nine critical building blocks. And enduring relationships depend on strong collaboration between suppliers and customers. On the basis of that research, I developed the *triple fit canvas,* a sales framework designed to facilitate collaborative value creation between sellers and buyers. Inspired by the blue ocean strategy canvas (developed by W. Chan Kim and Renée Mauborgne) and the business model canvas (developed by Alexander Osterwalder and Yves Pigneur), the triple fit canvas is both a diagnostic and an action framework. It expands a limited, product-centric view to encompass a customer-centric perspective. It shifts the focus from selling existing products and services to helping create new opportunities for mutual growth. In this article I explain the nine key components of the triple fit canvas and how companies such as BMW, Konica Minolta, and The Gap have benefited from it. (Disclosure: I have been a paid consultant for each of the suppliers referenced in this article.)

How Triple Fit Works

Traditional sales processes often start when suppliers identify and target the customers whose needs best fit their products. They then develop a value proposition, which they communicate to the market. Known as "value selling," this tactic focuses on what a company's products can do for the customer, rather than on how the two parties can create value together. Studies that my research team and I have done of more than 3,000 relationship cases have shown that only 15% of frontline sellers work with clients to create value. Members of that group double their account value in three years, on average, while companies that apply value selling and similar approaches are stagnant or achieve only moderate growth. Similarly, only 14% of senior managers have adopted a customer-centric, value-creating perspective. These growth champions increase sales and profitability at twice the rate of their peers.

Triple fit doesn't minimize the existing value of products and services. Instead, it takes a holistic view and places a higher priority on value creation across three collaboration levels: *planning, execution,* and *resources.*

Planning. This level comprises three building blocks—*strategies, relationships,* and *communication*—and indicates how closely a company's strategic direction is aligned with the customer's. A company must assess the degree to which its sales team takes the customer's strategy perspective into account and figure out how to use it to develop a joint three-year vision. The sales team must build and maintain multilevel contacts that promote stable relationships and communicate relevant information the customer needs for effective decision-making.

Execution. Also composed of three building blocks—*solutions, processes,* and *systems*—this level shows how effectively suppliers execute the joint strategy by developing unique solutions and services that create value for customers; executing processes efficiently along the value chain; and implementing adequate systems for IT, financial, and legal support.

Resources. The three building blocks here are *people, structures,* and *knowledge.* This level indicates whether the supplier has the necessary resources to support customers, including trusted advisers with a customer-centric mindset; an adequately customer-centric organizational structure; and a dynamic learning environment for new-business generation.

Evonik Industries, a German specialty-chemicals group, used an early version of the triple fit canvas in 2006 to integrate customer perspectives into its product development. That large-scale project focused on proactive, strategic value creation for Evonik's 300 biggest customers. In phase one the company hosted innovation workshops with customers to determine what such integration would look like for each one. In phase two Evonik and its customers used the canvas to consolidate those insights and translate them into tailor-made three-year-growth road maps. In phase three the plans were shared with customers for final validation. Six months after conducting the initial conversations, Evonik signed a deal worth €150 million with one of its largest

How Close Are You to Your Customer?

Use the 10 statements below to rate your company *from your customer's perspective,* with 1 equaling "disagree completely" and 5 equaling "agree completely." Then ask the customer to perform the same exercise. Discuss the results and agree on a consensus rating.

1. Overall, we rate our relationship with [*your company*] as

1 2 3 4 5

PLANNING FIT	**2.** [*Your company*] uses a mutually agreed-upon collaboration strategy with us 1 2 3 4 5	**3.** [*Your company*] maintains strong contacts, from the operational to the executive level, with us 1 2 3 4 5	**4.** [*Your company*] communicates in an open, fair, and forward-looking way with us 1 2 3 4 5
EXECUTION FIT	**5.** [*Your company*] develops unique offerings and value propositions for us 1 2 3 4 5	**6.** [*Your company*] aligns processes effectively and efficiently along our value chain 1 2 3 4 5	**7.** [*Your company*] provides cross-functional organizational and support structures for us 1 2 3 4 5
RESOURCES FIT	**8.** [*Your company*] assigns people with the ability to act as trusted advisers for us 1 2 3 4 5	**9.** [*Your company*] does business with us using compatible IT, finance, and legal systems 1 2 3 4 5	**10.** [*Your company*] uses its knowledge to co-create new, profitable business for us 1 2 3 4 5

The Triple Fit Canvas

Use the grid below to enter your consensus ranking for each of the nine building blocks. Then validate priority areas, ideas, and actions with a three-year perspective in mind. Update quarterly.

PLANNING	STRATEGIES	RELATIONSHIPS	COMMUNICATION
EXECUTION	SOLUTIONS	PROCESSES	SYSTEMS
RESOURCES	PEOPLE	STRUCTURES	KNOWLEDGE

SALES

automotive customers. The company attributed the deal to the triple fit discussion, which had helped the two parties fully understand each other's capabilities and the ways in which they were complementary. Evonik also believes that the process helped it weather the 2008 financial crisis better than its competitors did.

{STEP 1}

The Relationship Maturity Check

Performing a triple fit analysis involves five steps. To get started, rate the accuracy of each of the 10 statements in the exhibit "How Close Are You to Your Customer?" on a scale from 1 to 5 (ranging from "disagree completely" to "agree completely") *from the perspective of a given customer.* The statements focus on how well your company collaborates and communicates with that customer. The first one aims to capture an overall view of the relationship, while each of the other nine represents a building block. To overcome self-reporting bias, ask your customer to rate the accuracy of each statement as well. If you give your team high ratings and your client agrees, you probably have a solid, prosperous relationship. (Low ratings, obviously, signify that your relationship needs improvement.) To achieve a high-performing relationship, you should aspire to as many ratings of 5 as possible.

Sharing your findings with customers can lead to rewarding outcomes. In 2021 Virginie Jackson, a key account manager at DSM, took the company's triple-fit self-assessment to one customer, a producer of dairy products, for feedback. The customer offered to discuss collaboration hurdles and areas where value creation would be of mutual interest. After those discussions, the two parties agreed to reduce the number of unprofitable SKUs on offer. Next a joint value-creation team initiated codevelopment and sustainability projects to support the customer's mission to become an all-natural organic-product leader. As a result of that meeting and subsequent conversations, DSM doubled the value of the dairy producer's pilot program, improving overall client revenue by nearly €1 million in less than a year.

SALES

{STEP 2}

Identify Areas for Improvement

After you've completed the relationship maturity check, you must identify why you succeed or struggle in particular areas. Asking why you are in this position can help clarify the strengths that led to a high rating or the weaknesses that prevented one. In areas where you received unsatisfactory scores, ask why up to five times, until the root cause is properly defined, enlisting your customer's help in answering.

To improve its relationship with a major bank, Vodafone's sales team, led by Keith Shaw, then the Vodafone global account manager, performed a triple fit analysis in 2018. It focused on obvious value deficits between the two companies and the financial and operational risk associated with aligning their values. Teams from the two companies realized that the customer needed to prepare its technology for the future of mobile banking. With a game plan developed using the triple fit analysis, the two partnered to map the technology consumption of tens of thousands of the bank's employees—information they used to develop the technical requirements for a new "bring your own device" policy at the bank. Also, because of Covid-19, a draft working-from-home policy had to be accelerated, which led to the deployment of new advanced remote-communication solutions. Meetings for top executives from both companies were consistently held to maintain collaborative momentum. They included regular status checks, during which the triple fit canvas was used to initiate new value creation. Vodafone's business with the bank increased by 11% annually over the next three years, and its opportunity pipeline increased by 30%.

{STEP 3}

Develop Workable Solutions

The results of step 2 are the basis for developing ideas to boost value and mitigate risk. Asking what needs to be done to improve (or maintain) the situation is a simple but powerful way of looking at your full range of options. It is important not to jump to conclusions (or actions) too quickly. Most salespeople with a value-selling mindset tend to skip this step and then wonder why their "solutions" failed. A superior approach maps the spectrum of reasonable options, prioritizes and selects the most promising ideas, and secures the support of everyone who must be involved.

The Schindler Group, a Switzerland-based manufacturer of escalators, walkways, and elevators, had been in contact with a multinational construction, property, and infrastructure company for several years. In 2019 Michael Dobler, Schindler's SVP of global key accounts, proposed using the triple fit process to codevelop new business. The infrastructure company was intrigued: It had never discussed business issues beyond product and price configurations with a supplier. The conversations led to cost-saving initiatives and increased product quality and safety levels. Triple fit helped the infrastructure company save more than $16 million over a two-year period. The customer awarded Schindler a large portion of its business and full visibility into its project pipeline for the next 10 years. Schindler still uses the triple fit canvas to evaluate potential relationships and to draw a strategy road map for joint value creation with existing customers. "The triple fit canvas helps us develop high-value relationships with customers and project partners and run them like a business," Dobler says.

{STEP 4}

Differentiate Between Long- and Short-Term Actions

Step 4 divides value creation proposals into quick-win actions for 90-day projects and longer-term initiatives that will last up to three years. To garner stakeholder support, use the motto "Show me the money" to describe exactly how each action will be executed and deliver value.

Konica Minolta applied this approach to its relationship with the BMW Group. Konica's business solutions division

> A joint value-creation strategy with customers can help develop leading indicators that predict new problems rather than analyzing lagging indicators that reveal old ones.

had recently started deploying multifunctional devices, printers, and plotters for BMW. Both parties soon recognized that BMW's intense focus on price and hardware was hindering value creation. The Konica team ran a triple fit analysis with BMW to see where it could improve. The collaboration led to multiple immediate innovations—among them enabling BMW employees to print documents and images from any device and import scanned data onto mobile devices—along with several large-scale, longer-term improvements in mobile-device workflow productivity. As a result, BMW saved money and improved processes at its global production centers. Both companies recently agreed on a long-term partnership that increased the size of the BMW account by 300%.

{STEP 5}

Persuade Your Stakeholders

In the fifth and final step, your consolidated triple-fit findings must be summarized in a central message and pitched to stakeholders. Product-minded salespeople have difficulty shifting to big-picture thinking and collaborative value creation. You must persuade them that the process is in their short- and long-term interests. You must also persuade senior leaders to adopt your central message, provide funding for the associated initiatives, and accept the benefits and risks.

Christine Dickson, Maersk's global key client director in charge of its account with The Gap, was tasked with disrupting Gap's 30-year relationship with one of Maersk's shipping-industry competitors. She believed that conducting a triple fit analysis of Maersk's work with Gap would determine where the relationship could be improved. As partners they struggled with several triple-fit components, most notably strategies, relationships, and structures. She also wanted to identify areas where Maersk could cut into its competitor's relationship with the retailer. Dickson knew that she couldn't simply walk into a meeting with Maersk leaders and tell them that she wanted to conduct a triple fit analysis with Gap. Only after developing a clear understanding of what would be involved in such a process was she able to persuade her leadership team to try this new approach.

With her Gap counterparts, she conducted a detailed cash-flow analysis, which identified opportunities for savings by reducing Gap's inventory, discounting obsolete clothing lines, and shortening lead times while increasing Gap's speed to market. She then selected the Gap warehouse in Carson, California, to run a proof of concept. Because Covid-19 limited travel and in-person meetings, Maersk flew a drone inside the warehouse to capture potential areas for improvement on video. As a result of Dickson's analysis, Gap and Maersk developed transparent delivery schedules, priority lane access to warehouse docks, 24-hour processing, and guaranteed delivery, all of which unlocked significant value across the nine triple-fit building blocks. The initiative reduced Gap's logistics costs by more than $25 million during the pilot phase, and Maersk increased its revenue and profitability by 300% within two years.

HISTORICAL INFORMATION OBTAINED from customer data analysis and surveys is seldom responsible for unlocking opportunities for innovation. It's important to study that data, which can help improve decision-making and guide innovation. But it won't be as valuable as charting a new course with the customers a supplier aims to serve. By working with them to craft a joint value-creation strategy, companies can develop leading indicators that predict new problems rather than analyzing lagging indicators that reveal old ones.

As the examples in this article suggest, the triple fit canvas can not only help you determine where you've struggled but also help you identify valuable opportunities for future innovation and growth. Most sales teams miss those opportunities and stifle potential collaboration with buyers, which leaves money on the table and puts the teams at a major disadvantage when relationships founder or global financial markets slide. The best-prepared sales teams work with their customers using a one-company mindset to unlock new sources of value.

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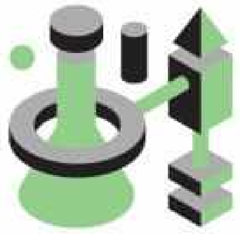

EXPERIMENTATION

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Act Like a *Scientist*

Great leaders challenge assumptions, run experiments, and follow the evidence.

PHOTOGRAPHER FELIX SCHÖPPNER

IDEA IN BRIEF

THE PROBLEM
Many leaders overrely on their gut instinct or personal experiences when making decisions—despite decades of admonitions about the dangers of doing so.

THE ROOT CAUSE
Executives often think that what worked for them in the past—the successes that earned them their leadership roles—will work in the future. And their subordinates often reinforce those feelings.

THE SOLUTION
Senior managers should take a scientific approach to making decisions. They should challenge assumptions and investigate anomalies by articulating testable hypotheses and conducting rigorous experiments that generate conclusive evidence.

Every day, managers make decisions about products, customers, resource allocation, employee pay, and more, basing them on assumptions that have never been critically examined, much less challenged.

ABOUT THE ART
Felix Schöppner explores themes of experimentation, perception, physics, and astronomy by artfully arranging everyday objects in his photo studio.

EXPERIMENTATION

"I've always been successful doing it this way and never thought about doing it another way" is what we often hear when managers are asked why they didn't question practices that turned out to be faulty. But when skeptics show that ideas underlying practices are wrong, confounding, or even costly, leaders grasp the importance of systematically testing assumptions.

Consider what happened at the hotel and casino company Harrah's Entertainment in the early 2000s, when one of us, Gary, who was then its chief operating officer, worked with his analytics team to reevaluate the company's approach to marketing incentives. The leaders of Harrah's had subscribed to the industry's conventional wisdom that financial incentives such as reduced room rates, food credits, and vouchers for retail stores heavily influenced customers' decisions to visit Las Vegas and that offering more of them increased the likelihood that people would book rooms there. Gary and the team set out to improve the efficiency of marketing spending by rigorously testing initiatives individually. (Trained as an economist, Gary understood the importance of assessing the incremental contributions of each element of the marketing program—instead of measuring the collective impact of the entire program, which was the industry practice.) They ran hundreds of tests to see which incentives induced people to stay at the company's hotels and to what degree. The results revealed that some, such as retail-store discounts, didn't affect hotel bookings and could be eliminated. Moreover, if the money spent on them was reallocated to effective incentives, such as deeper room discounts, Harrah's could boost both responsiveness and profits.

By 2005 the company was using experiments to improve many other strategic and operating decisions. For instance, its executives had assumed that because people liked transparency and fairness, they preferred an orderly physical queue at Caesars Palace's all-you-can-eat Bacchanal Buffet to a virtual queue—a digital notification system that allowed customers to leave the vicinity while holding on to a place in line. But a test revealed that if the restaurant sent customers a text 10 minutes before their turn to be seated, they used the time to buy drinks or gamble, generating revenue that far exceeded the revenue lost from people who didn't want to wait. Over time similar experiences led Harrah's to develop a culture of curiosity, where poking holes in the industry's conventional wisdom became not only acceptable but celebrated.

If challenging assumptions is so valuable, why don't managers make it a standard operating procedure? After decades of studying and practicing innovation and decision-making, we've concluded that the fundamental reason is that most business leaders don't think or act like scientists. This is a huge lost opportunity. Research by one of us, Stefan, has found that rigorous experiments can help managers discover whether a new product, service, or business program will succeed. (See "The Discipline of Business Experimentation," HBR, December 2014.) And in his roles as a chief operating officer, CEO, and president of large entertainment and health care businesses, Gary has seen that investments in data analytics lead to better decisions. But many managers are still reluctant to fund experiments, and despite decades of admonitions about the dangers of gut instinct, continue to overrely on intuition and personal experience in decision-making—even when the evidence contradicts them.

Acting like a scientist is difficult for leaders because it can challenge their legitimacy. Undoubtedly, that's because someone's position in the corporate hierarchy is often assumed to be the result of experience and a track record of successful moves and ideas. Senior executives live in a feedback loop of positive reinforcement that makes them unlikely to question the foundations of their decisions. The scientific method, in contrast, requires intellectual humility in the face of difficult problems and relies on an objective, evidence-based process, rather than predominantly personal insight, to frame and address decisions.

When we *think* scientifically, we recognize that human beings make cognitive and judgmental errors and can drift into a complacency built on flawed assumptions. When we *act* scientifically, we relentlessly probe our assumptions and change them if evidence shows that they're wrong. Taking a scientific approach to decisions is critical for today's organizations, particularly in light of the enormous upheavals the Covid-19 pandemic has wrought.

In this article we'll discuss five elements of the scientific method that we find to be particularly useful in management practice.

EXPERIMENTATION

History is full of examples where skepticism helped overturn commonly held ideas and led to important scientific advances.

1 BE A KNOWLEDGEABLE SKEPTIC

When business leaders adopt this mindset, their biases and errors won't get in the way of finding the truth. They will employ reason, demand evidence, and be open to new ideas. In scientific practice this means seeking independent confirmation of facts, placing more value on expertise than on authority, and examining competing hypotheses. Above all, skeptics *question* assumptions. They ask, "Why do we believe this?" or "What is the evidence that this is true?" History is full of examples where such skepticism helped overturn commonly held ideas and led to important scientific advances.

When managers are knowledgeable skeptics, it can transform how a company operates. Consider Sony. When Kazuo Hirai was put in charge of its consumer electronics businesses, in 2011, the company was struggling. Its once-successful TV business had experienced increasingly deeper financial losses for years. That's because Hirai's predecessors had a core assumption: To restore profitability, the business needed to increase the number of TVs sold in order to cover Sony's high cost of doing business. Hirai (who would become Sony's CEO in 2012) was skeptical and commissioned an analysis. It revealed that the business would need to sell 40 million TV sets a year to be viable. But in 2010 the company had sold only 15 million. More problematic, to achieve volume targets, previous leaders had repeatedly instituted price discounts, which triggered a further cycle of losses.

Hirai ordered Sony's sales organization to sell *fewer* TVs and *raise* prices. The company reduced the number of LCD TVs it sold in developed countries by 40% or so and cut the number of its U.S. models nearly in half. At the same time, it restructured to lower fixed costs, asked engineering to improve picture quality to justify higher prices, and launched a retail model that differentiated its products: a store-within-a-store at Best Buy. In 2015, Sony's TV business reported the first operating profit in 11 years. The skeptic's intervention had worked.

2 INVESTIGATE ANOMALIES

In science the study of anomalies has been instrumental in identifying questionable assumptions. Anomalies are things that are unexpected, don't look right, or seem strange, and they're noticeable because they don't cohere, or fit, with sought-after outcomes. Managers should watch for and explore them because they can lead to new business insights. (See "The Power of Anomaly," HBR, July–August 2021.)

A famous anomaly, for example, led the scientist Louis Pasteur to make a major discovery while studying the causes of chicken cholera. In 1879, when he returned from a summer vacation, he realized that his cultures of chicken cholera had lost their virulence. He also noticed that when his assistant injected the spoiled cultures in hens, they developed only mild symptoms and fully recovered. When the same birds were injected with fresh, virulent bacteria, they remained healthy. His discovery—that weakened or dead microorganisms that produce mild disease can prevent that same disease in its lethal form—led to one of the biggest breakthroughs in fighting infectious diseases: live attenuated vaccines.

Business leaders who look for and act on anomalies can likewise unearth insights that lead to significant opportunities, as Gary discovered in 1999, after he became COO of Harrah's. One night in the elevator of the company's hotel in Las Vegas, he overheard one customer telling some other customers, "I can't win in Vegas. The slot machines are much tighter here than in Atlantic City"—meaning they had lower average payouts. The other customers agreed.

The conversation surprised Gary. First, he knew that slot machines in Las Vegas had more-generous average payouts. (Machines in Las Vegas paid back 94.5% of customers' money, on average, while those in Atlantic City paid 93%.) Second, the long-held industry assumption was that tighter slot machines drove customers to casinos with more-generous payouts. What if most customers were like those in the elevator and couldn't tell the difference? Could an entire industry have gotten this wrong? He asked his analytics team to investigate.

The team found that the industry misunderstood how individual customers experienced playing. Customers would never encounter average payouts during a typical visit or even multiple visits; they would have to play the machines 80,000 times to do so. Consequently, they couldn't possibly detect the difference in average payouts between Vegas and Atlantic City. The elevator conversation ultimately led to a revolution in the casino business. Companies started to hire data scientists to use analytics and experimentation

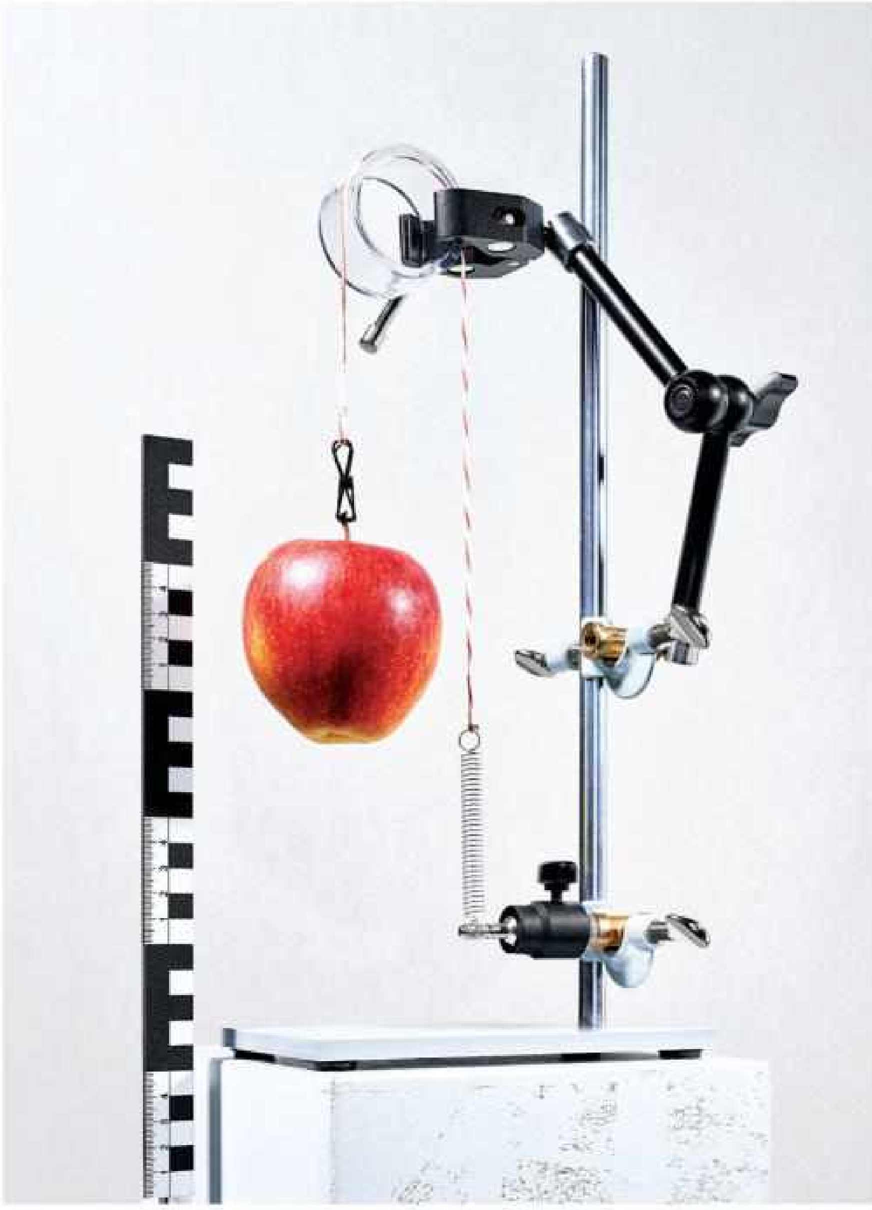
to determine the optimal payouts and locations of slot machines. Over time average payouts have fallen as casinos have become more confident in their ability to lower them without discouraging customers from playing.

Anomalies can also reveal significant problems that are about to hit an organization. One person who ardently believes this is Jørgen Vig Knudstorp, the executive chairman and former CEO of the Lego Group. He told Stefan that even when the percentage of customers complaining about a product is extremely small, a company should "really listen and listen very actively." He learned that when the company shipped 15,000 units of a particular Lego set without a critical component but heard from fewer than 5% of the customers who had bought them. "This illustrates an important lesson," he said. "When you hear a complaint from somebody, I think it's healthy to assume there are a lot more people who are unhappy."

3 ARTICULATE TESTABLE HYPOTHESES

To be effectively challenged, assumptions must be framed as hypotheses that can be quantifiably confirmed or disproved. "When you can measure what you are speaking about and express it in numbers, you know something about it," said Lord Kelvin, a leading figure in 19th-century science and engineering. "But when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind." (See the exhibit "A Strong Hypothesis Versus a Weak One.") An experiment that produces evidence contradicting a hypothesis allows us to recognize errors in our thinking and judgment, modify the hypothesis, and then retest it. This iterative process of testing and refining ultimately leads to stronger hypotheses.

Here's an example from science: For centuries the assumption was that the universe comprised matter called ether, which light traveled through. The ether hypothesis arose because scientists believed that light waves required a medium to propagate in empty space. In 1887 the physicists Albert Michelson and Edward Morley set out to prove this thesis was right. They conducted an experiment that measured the speed of light in perpendicular directions. Any difference in speed would be evidence of ether's existence. But no such



difference was found, undercutting the hypothesis and accelerating the search for a new scientific theory of space and time: special relativity. The experiment opened the door to another way of thinking about how the universe worked.

Businesses can apply a similar approach. At Bank of America it was used by a team tasked with improving customers' experiences in branch offices. One problem the team sought to address was the irritation customers felt when waiting for service. An internal study involving about 1,000 customers (whose findings were confirmed by two focus groups and an analysis by Gallup) revealed that after a person stands in line for about three minutes, a wide gap opens between actual and perceived wait times. A two-minute wait, for example, usually feels like a two-minute wait, but

A Strong Hypothesis Versus a Weak One

Every effective experiment begins with the articulation of a good testable hypothesis.

	Source	Design	Measurement	Verification	Relevance to a meaningful business outcome
Strong	Qualitative research, customer insights, problems, observations, data mining, competitors (example: "We observed fewer customers during the first store hour")	Identifies possible causes and effects (example: "Opening our stores one hour later has no impact on daily sales revenue")	Quantifiable metrics that establish whether the hypothesis should be accepted or rejected (example: time and revenue)	The experiment and its results can be replicated by others	Will have a clear impact (example: "Opening an hour later will reduce store operating expenses")
Weak	Guesses not rooted in observation or fact (example: "We think that wealthier buyers will like our products")	Does not identify possible causes and effects (example: "We can extend our brand upmarket")	Vague qualitative outcomes driven by several variables that are hard to isolate and measure (example: brand value)	The experiment and its results are difficult to replicate	Won't necessarily have a significant impact, or the link between the metric and business impact is fuzzy (example: "It's unclear how extending the brand affects profitability")

a five-minute wait may feel like a 10-minute one. Aware of studies suggesting that when you distract a person from a boring chore, time seems to pass much faster, the team articulated a straightforward hypothesis: *Putting television monitors above the row of bank tellers will reduce perceived wait times.* To test it, the team set up an experiment: It installed televisions tuned to CNN above the tellers in one Atlanta branch and compared the perceptions of waiting customers there with those of customers in a comparable branch without monitors. After allowing a week for the novelty of the TVs to wear off, the team measured customers' estimates of wait times for two weeks. In the branch with the TVs, the overestimation dropped from 32% prior to the test to 15%; at the control branch it increased from 15% to 26%.

In business, ideas for hypotheses can come from multiple sources. A good starting point is customer insights derived from qualitative research (focus groups, usability labs, and the like) or analytics (data collected from calls to customer support, for example). As we have seen, hypotheses can also be inspired by anomalies, which can be found in everything from overheard conversations to successful practices that deviate from the norm at other companies.

4 PRODUCE HARD EVIDENCE

Explaining the key to science in a lecture at Cornell University in 1964, the theoretical physicist Richard Feynman declared: "It doesn't make any difference how beautiful your guess is. It doesn't make any difference how smart you are, who made the guess, or what his name is. If it disagrees with experiment, it's wrong. That's all there is to it." Senior business leaders should take that advice to heart. An endeavor's underlying assumptions shouldn't be based solely on the feelings, experiences, guesses, or status of those holding them. They should also stem from conclusive evidence. If such proof doesn't already exist, disciplined experiments can provide it. This tenet should be a pillar of a company's culture. (See "Building a Culture of Experimentation," HBR, March–April 2020.)

Business settings offer many opportunities to conduct such experiments. Let's look at another effort that was led by Gary. In late 2009 many Las Vegas hotels and some hospitality companies elsewhere began to impose resort fees, which were single, all-inclusive charges that replaced à la carte charges for Wi-Fi, bottled water in rooms, access to the fitness center, and so on. When customers sought to book a hotel room, they would first be presented with the nightly rates. But once they moved to reserve it, they would see a resort fee added to the total, along with taxes.

At that point Gary had been CEO of the combined Harrah's and Caesars Entertainment for four years. He and his senior operating team assumed that prospective guests would view the resort fee as a price increase. He worried that it would reduce demand for rooms—especially from price-sensitive customers—and cause the occupancy rates to fall. (In Las Vegas high occupancy is especially critical. Guests who stay at hotels with casinos often spend more on gambling, food and beverages, entertainment, and other resort amenities than they spend on their rooms.) There was anecdotal support for their assumption: Southwest Airlines,

> The company's transformation required overhauling its business systems and constantly asking questions such as "Is this really true?" and "Do we really believe in that?"

for instance, was attracting customers by not charging for checked bags while competitors did. Gary and his team therefore decided not to follow the pack with resort fees. In 2010 the company ran ads and promotions highlighting the fact that its hotels were a "resort fee free zone."

When the first data on the occupancy rates of the company and its competitors arrived, however, there was no evidence that the decision to forgo fees was working. After about three months, Gary asked his senior operating team to test the initial assumption with an experiment. The company began by imposing a resort fee only on the guests who were expected to react with the least hostility: convention and meeting attendees and customers who weren't in the upper tiers of a reward program. After three months of testing, it was clear that customers weren't sensitive enough to resort fees to move their business to other hotels (most of which already charged them). The company continued its experiments by applying fees to its hotels beyond Vegas. Finally, enough hard evidence accumulated to convince Gary and his team that customers were less sensitive to resort fees than they were to room rates.

5 PROBE CAUSE AND EFFECT

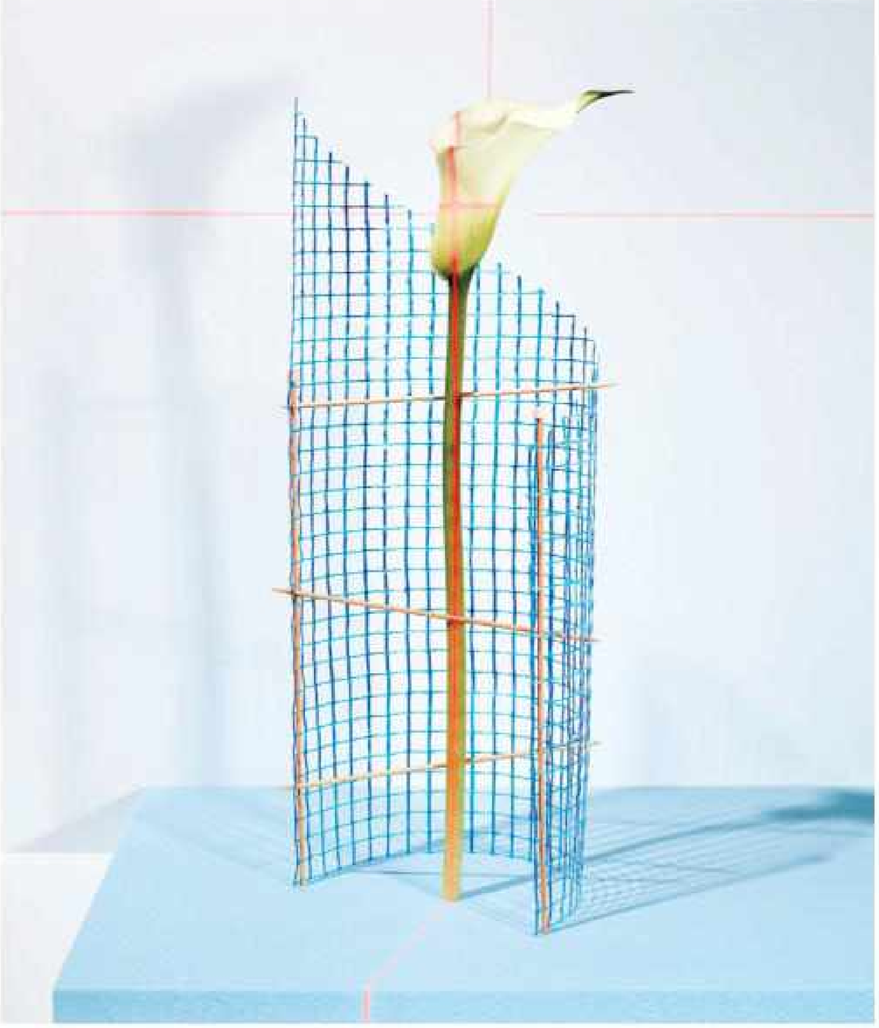
Relying on assumptions about cause and effect is dangerous for managers. We humans often see connections between unrelated actions and outcomes—confusing correlation with causation—and respond to irrelevant "noise" factors when making decisions. (See "Noise: How to Overcome the High, Hidden Cost of Inconsistent Decision Making," HBR, October 2016.) We also tend to happily accept "good" evidence that confirms our causal assumptions but challenge and investigate "bad" evidence that goes against them.

Scientists probe causality in different ways. In conventional experiments they change one or more variables (the presumed cause) and observe changes in the outcome (the effect) while holding all other variables constant. When they can't keep all other variables constant, they rely on randomization, which prevents systemic bias, introduced consciously or unconsciously, from affecting the experiment. Randomization evenly spreads any remaining potential causes of the outcome between test and control groups.

In natural experiments the variables are outside the control of the investigator, but they can still reveal insights about causality. (Last year the researchers Joshua Angrist and Guido Imbens won a Nobel Prize for showing how. To examine whether unearned income changed people's incentives to work, for instance, Imbens and his collaborators looked at data on lottery winners in Massachusetts. Because prizes in the state are paid out over many years, they are very similar to guaranteed basic income. By studying people who had won the lottery and comparing them with people who hadn't, Imbens could infer the causal effect of guaranteed basic income.)

When conventional experiments aren't feasible—say, because the interplay between the variables can't be observed—simulations often are useful. Finding evidence for "A causes B" gives scientists confidence that what they've observed isn't just a correlation. But a stronger test of causality is the use of counterfactuals, such as "Would B have occurred if not for A?" For business leaders, that means not just looking for evidence that a 10%-off coupon increased sales but also exploring whether the increase would have occurred even if the company hadn't offered the discount. Asking what-if questions and thinking about counterfactuals is a powerful way to examine scenarios under different assumptions and arrive at insights about cause and effect.

Leaders should use this approach to test assumptions about the fundamental factors that drive their companies' success. Knudstorp did just that after he became CEO of Lego, in 2004. When he took the helm, the company was on the ropes, suffering from depressed sales and stagnant growth. Over the next decade he transformed it into a leader in the toy industry. Getting there required overhauling its business systems and constantly asking questions such as "Is this really true?" and "Do we really believe in that?" One of the things the management team reexamined was the company's decision to outsource its operations to Flextronics. The assumption had been that the move would streamline Lego's supply chain, reducing costs, but it turned out that it actually led to longer lead times, higher purchasing expenses, and shorter lifetimes for injection molds. Lego's leadership recognized that bringing manufacturing back in-house would make the company more competitive. For example, by investing in cutting-edge injection-molding



technology, Lego was able to provide users a better building experience that competitors couldn't match. (The connecting forces of bricks had to be strong enough to hold them together but not so strong that they couldn't be pulled apart by a small child. In addition, the new bricks had to be compatible with those manufactured decades ago. Only very tight molding tolerances could achieve that.)

The probing process also involved listening to the products' community of fans, which led to the insight that Lego's building instructions were more important than the company had realized, because they allowed ordinary users to create extraordinary constructions. In response Lego expanded the resources devoted to the creation of instructions, whose quality and style improved. Today many are digital and 3D.

THE GLOBAL PANDEMIC has introduced us to a world full of peril and much greater uncertainty. Assumptions about how we work and live have been turned on their heads. Supply chains no longer seem to function, and answers to the most pressing business problems appear elusive. What happens to organizational cultures, for example, when people no longer work in offices? Can a manufacturer run a factory with no people? Can we bring down skyrocketing insurance costs by motivating employees to take action to improve their health? But a time of great uncertainty is also an opportunity to rethink what business leaders have assumed to be true. It would be a mistake to rely only on experience, intuition, and judgment to guide us through this tumultuous era.

Men and women who have practiced the scientific method have given us amazing medical remedies; a vastly safer and more plentiful food supply; new kinds of energy, transportation, and communication; and so much more. It's a highly effective way to help businesses increase the likelihood of success, reduce errors in judgment, and find sources of innovation and growth. It should play a central role in their decision-making processes.

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PHOTOGRAPHER LEILA JEFFREYS

LEADERSHIP DEVELOPMENT

How to Get the Most out of Peer Support Groups

A guide to the benefits and best practices

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IDEA IN BRIEF

THE UNTAPPED OPPORTUNITY
Peer forums are groups of four to 10 people who meet regularly to discuss their work and lives—and learn from one another. But because of their small size and private nature, they're still unknown to many people who could get value from them.

THE BENEFITS
While their makeup, focus, and sponsors can vary, all successful forums allow participants to share concerns, show vulnerability, hear different viewpoints, clarify priorities, make decisions with greater confidence, and form connections that help them feel safe, grounded, and capable in an uncertain world.

THE BEST PRACTICES
Good forums pay careful attention to group composition, principles for participation, meeting structure, processes, and content, and use flexible technology. They also seek to continually improve the forum experience for everyone.

Fifteen years ago, Mike Novakoski, the president and CEO of EV Construction, joined a local peer support group for company leaders run by YPO (formerly the Young Presidents' Organization). At the time he doubted he would stick with it; he expected he'd be too busy to go to the meetings involved. Now, he says, "I can't imagine life without it." The group has helped him connect more authentically and build trust with others, he says—so much so that he has encouraged his family, friends, colleagues, and suppliers to find or form their own peer groups.

ABOUT THE ART

Leila Jeffreys's bird portraits are the result of years of research and collaboration with conservationists, ornithologists, and bird enthusiasts. Her series High Society *explores the communities and relationships of flocks.*

LEADERSHIP DEVELOPMENT

At the consultancy Spitfire Strategies, Kristen Grimm, the founder and president, has introduced "peer pods," self-directed, virtual peer support groups in which employees with similar responsibilities and pressures discuss their professional growth, find creative solutions to problems, and ultimately learn to operate at a higher level. Now nearly everyone in the 50-person company, including all the senior leaders, belongs to a pod. A pod "might be the first place someone says something out loud that they might otherwise hold back," Grimm notes. "In times of change it's a real balm for people to come together."

For more than a decade, Nancy Parachini, the director of the UCLA Principal Leadership Institute, has organized peer groups for leaders of Los Angeles schools in historically marginalized communities. She says it's a way to "sustain valuable peer learning" and ensure that educators can support one another in "leading for social justice."

What exactly are peer support groups (often simply called "forums"), and why do busy executives like Novakoski, Grimm, and Parachini feel compelled not only to attend them but to persuade others to do so? Typically these groups are made up of four to 10 people in similar roles, career stages, or companies, who agree to meet regularly for thoughtful and confidential conversations about their work and lives—and learn from one another and grow. Forums differ from other types of work and business groups—like employee resource groups (typically for underrepresented populations in the workplace) and industry networks—because of their defined structure, the careful attention they pay to their composition, the training given their leadership, and the frequency, depth, and scope of the conversations they foster. Although this article focuses primarily on professional forums, they can also be used in many other settings, such as schools (for instance, for teenage children of divorced parents), health care facilities (for, say, parents of kids born through IVF), and community organizations (for people who have lost a spouse).

While their makeup, focus, and sponsoring organizations can vary, in our research over the past decade we've found that all successful forums serve the same important function: They allow participants to share concerns, show vulnerability, hear different viewpoints, clarify priorities, and make decisions with greater confidence. Members also build camaraderie and form connections that help them feel safe, grounded, and capable in a volatile and uncertain world. The support they receive in forums sustains them through their toughest professional (and personal) challenges and fosters their long-term success.

Of course, there are other ways to achieve those benefits: practicing mindfulness and gratitude; diet and exercise; coaching, mentoring, and therapy; and counseling from family, friends, and close colleagues. But because members of peer forums typically have no previous substantive relationships with one another, they're free from tricky preexisting interpersonal dynamics. Forums also offer access to a greater variety of perspectives. And their regular and carefully structured meetings ensure that members take time to think about important issues and discuss them productively.

Unfortunately, because of their small size and private nature, peer forums are still unknown to many people who could get value from them. In this article we'll discuss the different types of forums, outline the practices that contribute to their success, and explain how leaders launch, organize, and run them.

Peer Forums Today

Connecting with other people of equal standing in small groups for collective benefit is a human tradition that goes back to the times when tribal leaders gathered around the campfire to distill the day's stories into lessons for tomorrow.

In the business world, peer forums are offered by many firms and associations, including YPO, EGN (a partner of Harvard Business Publishing, HBR's parent), Entrepreneurs' Organization, and Vistage, as well as academic institutions. A number of companies organize their own programs internally. The concept has also taken root in the nonprofit world, often inspired and sometimes funded by executives who have benefited from their own peer groups. (Full disclosure: Both of us have connections to YPO. Robert has held a senior leadership role there, and Boris is a member of the YPO Learning Advisory Partner Group.)

Today's forums tend to define themselves along three key dimensions:

Membership criteria. Some groups are limited to one industry; others include people from a mix of fields. Some encompass members at different points in their careers; others at just one or two stages. Often groups are geared to a certain type of role or responsibilities—say, CEOs, directors, or entrepreneurs—or leaders of businesses of a certain size. Still others are for people with a particular gender, racial, or sexual affinity.

Issue focus. In some forums the conversations are far-ranging, encompassing "the whole person"—business, community, family, and personal responsibilities. But many cover only business issues or even narrower topics, like career transitions and entrepreneurial growth. Then there are forums that look beyond business topics and focus on big social issues (like education, health, or economic development) or specific personal interests (children with special needs, medical issues).

Sponsorship. A peer forum may be set up and run by an individual, an organization, or an association. In-organization forums, which sometimes are part of a leadership development program and sometimes are companywide, are fairly prevalent. So are industry-focused groups, groups run by professional associations, and groups affiliated with schools or universities. (See the sidebar "The Most Common Types of Peer Forums.")

For any individual, the right group, issue focus, and sponsorship may evolve over time as that person's circumstances and needs change. But when you're in the right forum, "you really feel like people are rooting for you," Novakoski says.

"While therapists are trained to ask the right questions, to reflect back, to offer frameworks for thinking, they aren't getting in the arena with you in the same way that your peers are," he notes. "It's remarkably comforting to know that my problems are being considered by some of the best minds, who care about my business as much as I care for theirs. We've committed ourselves to a trusted partnership, to doing life together, and that helps keep me mentally healthy."

Peer forums offer concrete benefits to organizations as well—as a study done at the Fujitsu Social Science Laboratory, a division of Fujitsu that provides systems integration and IT solutions, found. When Ken Senda and Kentaro Iijima, two executives in the division, looked at the internal peer-group program it had set up, they found that departments with higher participation in it experienced improved teamwork, increased employee satisfaction, and higher sales and profits than those with lower participation. "What makes peer learning such an effective means of leadership development is that the conversation is always in the context of the manager's experience in the organization," Senda and Iijima observed in an article for *Human Resources Director.* "Thus, the relevance and the recollection of the conversation is high. [The structure] is ideal for a group of practicing managers facing real business issues."

The interactive entertainment company Electronic Arts has similarly realized performance and retention gains from its peer forums for high potentials. They "normalize the challenges of being a leader and help build courage to step up to them," says Andy Billings, EA's head of profitable creativity.

"Forums build and scale empathy at a faster rate than anything else I've seen," says forum facilitator Sylvia van Meerten, who codesigned a program for Vynamic, a health care management consultancy. "Forums teach people to listen to *understand,* instead of listening to *respond*. They teach self-reflection in a safe environment, which leads to clearer communication. They teach people to value their group and show an entirely new level of loyalty."

Best Practices

Peer forums are hard to study. Private groups don't generally open themselves up to outsiders, and anyone who attends (even as a onetime facilitator or trainer) is generally expected to fully contribute. But we've been able to draw conclusions about forums' value, best practices, and common challenges by doing deep fieldwork, including interviews with participants and leaders; analyzing program materials; surveying forum members; and mining our own experiences participating in peer forums over the past decade. In particular, we'd like to thank the hundreds of YPO members who've given us invaluable insights and the leaders, facilitators, and members of other forums who have shared what has worked for them. Many of the best practices we describe here are drawn from their contributions.

The right composition. To foster engaging and valuable conversations, a forum needs a diverse set of members

The Most Common Types of Peer Forums

Each has a different kind of sponsor and offers distinct benefits and challenges.

In-organization, as part of a leadership-development program

EXAMPLE: Electronic Arts' Xcelerators program for high-potential leaders includes peer forums. They meet in person three times during each of the program's six four-day training modules and virtually one to two times a month between modules and often choose to keep meeting afterward.

BENEFITS: These forums enable deeper workplace-relevant conversations within a specific cohort, including discussions of sensitive leadership challenges that are harder to raise in a large classroom.

CHALLENGES: Office politics may stifle conversation; organizational changes (like restructuring, promotions, and departures) can be disruptive.

In-organization, companywide

EXAMPLE: Spitfire Strategies, a nonprofit consultancy with offices around the United States, sets up "peer pods"—self-directed, virtual forums of seven to 10 people with similar responsibilities and pressures. The firm's employees have also organized their own special-interest pods focused on issues such as parenting.

BENEFITS: These build cohesion and resilience across the organization, serve as an all-employee benefit, and generate bottom-up insights.

CHALLENGES: They may complicate hierarchical communication and can be difficult to sustain when organizations face intense business pressures.

Industry-focused group or association

EXAMPLE: The Wine Industry Sales Education Academy has "cabinets" for members at three levels: executive leaders, direct-to-consumer directors, and direct-to-consumer frontline managers. Composed of eight to 10 members, these groups meet eight times a year for two to three hours with a professional facilitator.

BENEFITS: With experienced moderators, these forums tend to run smoothly and efficiently. They also bring collaboration to a competitive environment and produce industry-relevant insights.

CHALLENGES: Membership fees are typically required; sometimes it's difficult for participants to attend, given their work responsibilities.

Professional association

EXAMPLE: YPO, an international association of CEOs, developed peer forums as a more intimate alternative to large conferences and chapter events. It now offers industry-focused, regional, and global forums, and forums for members' spouses and young-adult children.

BENEFITS: Association forums group participants according to tight peer definitions; offer training, staff support, and facilitation; and often stay together for many years.

CHALLENGES: Membership fees are typically required; differences in business complexity, company maturity, or personal life stage can diminish their value.

School- or university-affiliated

EXAMPLE: The UCLA Principal Leadership Institute's forums are each made up of six to 10 alumni of UCLA's master's program for educators, who are district leaders or full, assistant, or aspiring principals, mostly serving in high-poverty communities.

BENEFITS: Members build from a common educational experience, going far deeper than typical alumni social or networking events.

CHALLENGES: Status as fellow alumni may not be a sufficient basis for sustained peer quality.

who are willing to listen, ask good questions, and share their experiences and feelings. The optimal group is large enough to include a variety of backgrounds and perspectives but small enough that the discussions are relevant, meetings are fairly easy to schedule, and everyone gets airtime. The sweet spot is typically four to seven people for virtual forums and five to 10 for forums that meet mostly in person.

Equally important is the quality of the members. Anyone considering joining a forum should ask: Are these people I can learn from and grow with? Can they support and challenge me? Do the issues and opportunities we want to discuss intersect in compelling ways? Are our professional roles similar in scope, tenure, and complexity? Are members willing to make a serious commitment to protect the meeting time and to show up for one another?

The most effective forums avoid inherent conflicts from the start. Their leaders check that members won't be key competitors, suppliers, customers, close colleagues, or relatives of other members. They don't want hidden agendas, past baggage, or competing priorities to inhibit conversation.

Forum members must agree on the range of topics they'll address. In many successful groups both business and personal concerns are on the table, and no issue is too sensitive or taboo to bring up.

Members must also be aligned about the overall purpose of the forum, be it personal growth, professional and business growth, friendship and networking, or some

In good peer support groups, what's said in the room stays in the room. Members know that they can trust one another completely.

combination thereof. At forums inside an organization, the purpose is often a mix of promoting business growth, developing leaders, and fostering a shared culture.

Principles for participation. Forums that are consistently valued by their members and organizational sponsors follow a well-honed set of rules.

→ ***Protect confidentiality.*** In good peer support groups, what's said in the room stays in the room. Members know that they can trust one another completely, and they restate their commitment to privacy at every meeting. Electronic communication is used only for logistical information. To avoid missteps, members preemptively discuss scenarios where they might trip up, and they have a clear process for resolving any confidentiality issues that may arise. If a forum is an in-company group, members and executives decide together what may (or must) be shared with bosses or HR.

→ ***Commit to addressing key issues.*** Forums should be the place to discuss your most critical topics with complete candor. Some of the richest conversations may focus not on immediate business or personal issues but on broader themes like purpose, resilience, or balance. Other subjects we've seen tackled in forums include:

- Business crises (My company is in trouble. My project is falling behind. My best employee is leaving. What do I do?)
- Feeling like an impostor (Do I have what it takes to lead my organization? How do I handle an investor, a boss, an employee, or a peer who is questioning my authority?)
- Personal finances (How much is "enough" for me? What are my goals and fears?)
- Societal issues (What current economic or political shocks are making my leadership challenges worse? How do I make decisions in situations when I can't serve all valued stakeholders equally?)

Novakoski notes that his YPO group covers "hard" stuff like strategic, financial, and operational decisions, as well as "softer" questions like, How do we hire the right kind of people? How do we become the employer of choice? At his company's own peer forums, he tells participants, "We're going to talk about the things that worked, the struggles we've had, what we are looking forward to personally and professionally."

→ ***Share experiences, not advice.*** In a classic *Dilbert* cartoon by Scott Adams, one of Dilbert's colleagues tells the pointy-haired boss, "I followed your investment advice and lost all of my savings." He then asks, "How does advice actually work?" The boss's reply: "It only works for the people that give it."

When you give advice, you tend to feel smart and helpful. But no one should presume to know better than a peer what to do in that person's own unique situation. In forums, sharing advice may even inadvertently spark a competition over who can offer the "best" counsel. A better approach is to share experiences instead. This can be difficult for executives, who are accustomed to being asked for their opinions and telling people what to do. An easy rule of thumb is to stick to the first person: "Here's what struck a chord with me as I heard your story. Here's what I did. Here's what happened to me and how I felt."

→ ***Be open and vulnerable.*** When members of peer forums make a commitment to contributing authentically and vulnerably, it drives deeper sharing and greater value.

In successful forums, participants are encouraged—no, expected—to admit when they're questioning their own competence, priorities, and decisions; to share their disappointments, regrets, and dilemmas; and to speak candidly about positive opportunities and successes. Consider how Bonnie Godsman, the CEO of GAMA Global, describes her association's "study groups." She calls them "a safe harbor from the vortex, a place to take a minute to breathe, to know you're not crazy, to take your mask off and not feel bad about that."

Jeff Snipes, another successful CEO, has participated for many years in his own executive peer forum and introduced forums several years ago to the faculty and students (including his own children) at Millennium School in San Francisco. He summarizes many of their best practices well: "listening, noticing, reflecting, inquiry, compassion, empathy, vulnerability."

Proven processes. The typical forum meets monthly, often on a set day and at a set time, for two to four hours in person or for one to three hours virtually (if members are geographically dispersed or it's challenging for them to gather). Of course, schedules can be adapted. We know of one group that met virtually from 6 AM to 8 AM because that's when everyone was available, another that arranged weekly 30- to 60-minute videoconferences during the

In times of crisis (like the pandemic), a forum can focus the agenda on critical or shared challenges.

Covid-19 pandemic, and others that scheduled ad hoc meetings when members faced new or unexpected challenges.

The most successful forums follow a standard structure to ensure efficient, equitable, and effective dialogue. Snipes says he has been struck by how similarly his own executive group and both teacher and student forums operate. "The content is different, but the agendas, tools, and language are all the same," he explains.

Here's what usually happens at a good forum meeting in YPO and many other groups:

→ ***Check-in.*** Members show up on time and silence their devices. The moderator or facilitator reminds everyone that the conversation is confidential and asks if any members are unable to be fully present, trusting, and vulnerable.

→ ***Updates.*** Members each give a brief (three- to five-minute) overview of the most significant issues on their minds. A helpful YPO template we've seen some groups use is to ask all present to share the things that are in their "top 5%" (biggest opportunities) or "bottom 5%" (greatest challenges). Alternatively, some groups prompt participants to answer questions like: What's keeping you up at night? What gets you up in the morning? Which issue causes the greatest emotional stress for you?

Updates are the source for the forum's "parking lot," an evolving list of topics to be explored at the current meeting or in the future. From it, the forum will select subjects that are urgent or important or reflect common themes.

→ ***Member presentations.*** In-depth presentations are at the heart of most meetings. All participants should be given regular opportunities to make them, though usually only one or two people will do so at each meeting. The selected member begins by giving some background on a situation and then describing his or her feelings about it, potential courses of action, and desired outcomes. Other members may ask clarifying or thought-provoking questions and then share how they connect to the issue and what emotions or experiences it calls up for them. At the end of the presentation, all participants reflect on their takeaways: new insights, perspectives, questions, or to-do items. Often members find that they get as much out of others' presentations as they do from their own.

→ ***Topical exercises.*** Sometimes forums substitute a thematic exercise—which may involve assigned reading, assessments, case studies, and guiding questions—for members' presentations. Common topics include transformational change, crisis management, alternative business models, effective hiring, being a good boss, attitudes toward money and financial planning, childcare and eldercare, confronting mortality, and religion and spirituality.

→ ***A shift into crisis mode.*** In times of crisis (like the pandemic), a forum can also focus the agenda on critical or shared challenges. The questions addressed often include: How can the forum help each of us today? What issues are most urgent? What feedback, ideas, or leads can you take action on immediately? Looking at longer-term personal impact is also key. Questions here might be: What part of your life needs the most care right now? How can you turn the current situation into a personal growth opportunity? Says Godsman, "Forums help us navigate the 'now' and the 'next.'"

Effective leadership and training. Typically forums rotate leadership responsibilities. The member serving as

How Effective Is Your Forum?

You can assess how it's doing by asking these questions.

Purpose and content: Does the forum address my personal objectives? Are the issues discussed worthy of my and other members' time? Do I gain new perspectives on my blind spots and life choices?

Membership: Is this the appropriate, right-size group for me, balancing common interests with a diversity of perspectives? Are most, if not all, members showing up on time to every meeting?

Group norms and processes: Do the forum's structure and norms support vulnerability, learning, and trust? Is conflict addressed in a timely and effective manner?

Management: Do the forum's leaders help foster a psychologically safe space? Are we following a clear agenda at every meeting?

Technology: Are virtual platforms used appropriately and effectively? If possible, do we prioritize meeting in person at least occasionally to sustain deep connections over time?

If you (and other members) can answer yes to all these questions, you're in good shape. If you see some weak spots, work with your peers to improve in those areas.

the moderator will set the agenda, guide the group through the scheduling and parking-lot processes, and model deep sharing as an inspiration for others. Grimm emphasizes that it's crucial for the leader to set high expectations for sharing so that a forum can address anxieties, build "connective tissue" between members, and become "a real learning laboratory."

Frequently, an assistant moderator keeps notes and handles meeting logistics and is designated to take over as the leader when the current moderator's term ends. And though forums may be launched without any professional support or formal education, they can benefit from the following:

→ ***Orientations.*** In these a volunteer or paid professional facilitator introduces new members to the forum's principles and processes and takes them through a sample meeting in which they prepare and share an update and experience a full presentation.

→ ***Annual retreats.*** These allow members to get away from their usual meeting venue, which is often around a formal conference table, and interact in a more relaxed and intimate setting. With or without professional facilitation, retreats help forums go deeper, reinforce best practices, clear the air on any issues that may be holding them back, and recommit to the shared journey.

→ ***Moderator training.*** This can help members keep their forums operating at a high level. It also allows participants to make connections with fellow moderators, share best practices, and address common challenges.

Flexible technology. A variety of electronic tools, as well as paper-based agendas and templates for updates, presentations, and exercises, can help make meetings more effective. Forums don't need to reinvent the wheel but can adapt materials used by other groups.

While peer support groups traditionally were conducted in person in a quiet space free from interruptions, virtual participation and all-virtual meetings are now an essential part of the forum process as organizations have become more distributed and the global pandemic has prevented people from gathering. Phil LeNir, president of Coaching-Ourselves International, notes that a virtual peer forum is better than no peer forum, especially during periods of social distancing. He says the pandemic has led people to seek more human connection, including new professional

Members must regularly ask themselves individually and as a group: What did and didn't work in today's meeting?

relationships, and that organizing groups online can be easier—and more sustainable over the long term—than requiring in-person meetings.

When participating remotely, members should meet via a videoconference platform, be on camera, and give the conversation their undivided attention. When appropriate, they can make use of features such as chats, digital whiteboards, and screen sharing. Forum moderators must proactively manage the discussion flow, calling on people by name. To protect confidentiality, the group should require a password to log in to the meeting space, use headsets, and prohibit recording or screen capturing.

Common Challenges

The performance, efficacy, and value of forums can't be taken for granted. Members and sponsors must be alert to signs of trouble. Perhaps the peer group doesn't gel because of inadequate vetting of members at the start. Maybe there have been breaches in confidentiality or discussions have become less candid. It could be that meetings feel inflexible, or too packed to tackle deep issues, or consistently dominated by a handful of people—or that participants are having trouble really connecting through Zoom. (To assess your current forum or one you are considering joining, see the sidebar "How Effective Is Your Forum?")

While challenges can be addressed one at a time, a holistic approach is more likely to identify key problems and their causes and help you find long-term solutions. We recommend three approaches:

Cultivating a spirit of continual improvement. Members must regularly ask themselves individually and as a group: What did and didn't work in today's meeting? Is everyone aligned about the forum's purpose, values, and norms? What changes would make our forum more effective and valuable? How can we further advance both individual and shared objectives? Are we all carrying our own weight—participating fully, expressing appreciation for others' contributions, and raising concerns when we have them?

Clearing the air early and often. When a forum is functioning at its highest level, each member can honestly say, "There's nothing holding me back from being fully attentive, engaged, open, and trusting today." But sometimes members may be distracted, irritated, angry, or sad because of issues within or outside the group, personal or professional. Rather than letting small annoyances build into bigger problems, forum leaders should schedule time at the start or end of every meeting for members to raise any concerns. Says Novakoski, "Sometimes I'm the one who needs to give an example for others, to demonstrate that admitting errors or failures is the kind of vulnerability we must all be willing to show."

Engaging an outside expert. Sometimes challenges are so disruptive or the combination of issues is so complex that the forum may need an outside facilitator (a professional or a veteran of another forum) to help the group go deeper, reinforce best practices, introduce new approaches, open dialogue, and support members in recharging and recommitting.

AN EDUCATOR IN a Millennium School forum summed things up well in an end-of-year update, calling forums "a place where you find a sense of peace and calm that allows you to become anything and everything you've ever wanted to be, because of the support, guidance, and encouragement you receive." We firmly believe that most people—and certainly many leaders—can benefit from being in a confidential group that's designed to help all its members meet their toughest challenges and achieve their highest aspirations. Having laid out the benefits that make peer forums a worthy investment of time, described the many forms they can take, and outlined the best practices for conducting them, we conclude with a call to action: Join or start a peer forum today. Find an existing group that's right for you, or work with others within or outside your organization to convene one. Create your own circle of trust; share, grow, and learn with others; and then spread the gospel of forums to the rest of your personal and professional network.

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Experience

Advice and Inspiration

MANAGING YOURSELF

How to Stop Procrastinating

Seven strategies backed by science

by Alice Boyes

MOST of us procrastinate. We feel guilty about it and criticize ourselves for it. And yet we still do it. Why? Because of at least three factors: the absence of good habits and systems (poor discipline), intolerance for particular emotions (like anxiety or boredom), and our own flawed thinking patterns.

When you understand these causes, you can use strategies that target them. You can minimize minor incidents of procrastination—such as when you drag your heels and don't start a project until close to its due date—and head off the bigger problems your patterns of delay are causing.

Illustrations by VANESSA BRANCHI

When a task bores you, schedule a reward for completing it or do it in a more fun way—for example, with teammates you like.

YOUR HABITS (OR LACK THEREOF)

A common theory is that procrastination is the result of a lack of discipline. Procrastinators choose leisure and fun over hard work. A more modern variation of this explanation is that they don't have good systems and habits. Multiple studies have shown that strong habits reduce our need for self-control. They make it easier to stick to effortful behaviors and resist distractions. But the process of establishing a habit that confers such benefits usually takes a few months.

To assess whether this is an issue for you, ask yourself: What habits do I have in place to tackle my most important tasks? If the answer is none, try these approaches:

Schedule your deep work consistently. I define *deep work* as focusing on your most important long-term project. It might entail, say, crafting a business strategy, doing complex data analysis, or writing a book. Deep work is generally challenging, but doing it consistently each day, in a regular pattern, will make it less so.

Habits make sequences of behavior more automatic. Consider that once we're no longer novice drivers, we don't consciously think about what we do whenever we get behind the wheel of a car. More-complex habits like going to the gym or learning a language can also become more automatic. That happens through repetition and cuing. So you shouldn't attempt to do deep work at 11:00 in the morning one day and 3:00 in the afternoon the next. And even if the exact time you settle into it isn't the same, your deep work should fit into your day in the same pattern: *After I do this, I do my deep work*. For example, each day after spending up to an hour on email and administrative tasks, I start my deep-work session, which for me usually involves writing.

Create a system for starting new tasks. What about responsibilities you're handling for the first time that feel outside your wheelhouse? You'll be less likely to put novel tasks off if you have a master system for approaching them. The steps you take when you encounter something new will become their own type of habit, which will reduce decision fatigue about how to start.

My own system involves a consistent sequence of steps: First, I consider three options for how I could approach the task. Next, I conduct a premortem analyzing the things that are most likely to go wrong. Then I calculate how long I should spend on the task. And last, I find ways to quickly test my assumptions.

How can you develop your own system? Reverse engineer it: Bring to mind an example of a challenging task you've completed successfully and identify the steps you used to accomplish it. I prefer this approach to attempting to copy someone else's methods, because it will result in a system that suits your own nature and strengths.

YOUR EMOTIONS

We tend to avoid tasks that stir up negative emotions. In psychology, avoidance and its close cousin, rumination, are known as *transdiagnostic factors*—that is, they're symptoms of many common mental-health difficulties. People who cope with stress by using avoidance tactics are more vulnerable to depression, anxiety, ADHD, and eating disorders, and it becomes a vicious cycle. When their mental health worsens, their avoidance does too.

But even people who only sometimes feel sad, doubtful, and anxious about their work—or can't tolerate the boredom or stress it induces—tend to avoid tasks that evoke such emotions. This response is heightened during periods of uncertainty. When you feel overwhelmed, you're more likely to procrastinate. In this state even simple tasks, such as replying to emails, can seem daunting.

To know whether your emotions are the primary reason you put work off, ask yourself: How is my mental health? Do the tasks I avoid inspire certain emotions? Do they make me bored, angry, anxious, or resentful? Then try these strategies:

Disentangle your feelings. Accurately identifying your emotions—something psychological researchers term *emotional granularity*—will help you manage them. When it comes to procrastination, it's also useful to analyze how much each emotion is affecting your attitude toward a task. For example, you might find that writing a presentation for your boss provokes anxiety at a level of 8 on a scale of one to 10, resentment at a level of 6, and boredom at a level of 4. Once you've determined that, you can then address the emotions individually. The rating system will help you evaluate how effective you are at minimizing them.

When a task bores you, schedule a reward for completing it or do it in a more fun way—for example, with teammates you like.

When a task makes you feel resentful or irritated, find what you genuinely value about it. Maybe you get annoyed by having to make the revisions that your supervisor asks for, but you really value honing your craft. You may feel resentful about cross-division committee work but value the opportunity to improve your organization's culture. You may get frustrated by a teammate's request for tech help but value being a supportive colleague.

When a task makes you anxious, start with the elements of it that make you the least apprehensive and progress from there. This is exposure therapy: gradually working up to what most scares you. What seems unmanageable initially will feel within your grasp once you've worked through the easiest steps.

This approach to turning difficult emotions into greater focus and dedication is part of a skill set called *psychological flexibility,* which was developed by the psychologist Todd Kashdan and his team. The more people use it, the happier, healthier, and higher performing they tend to be.

Use self-compassion to overcome strong negative memories. Sometimes the emotions we have about a task are driven by a prior experience. Here's a story from my own life that illustrates this.

The first time I gave a talk about my research at a conference, it didn't go very well. I was a grad student. I lived in New Zealand, and the conference was in Australia. I decided to fly into a bigger city near the conference and take an overnight bus to the smaller city where it was being held because the flight was cheaper. I wasn't in the best shape when I arrived. I felt like a deer in the headlights and stared down at my notes while reading my talk. I can still viscerally recall what it felt like to be in that room and look out at that audience, which included my adviser and my teammates, feeling that they were objectively better than I was at everything research-related, especially presentations.

Now when I need to give a talk, that 20-year-old memory comes flooding in. Suddenly I become my younger self, and

A task might seem unachievable if I imagine having to get it perfect the first time or having to do it in the exact same style as a colleague that I admire.

all the skills and confidence I've developed in the years since slip through my fingers. When hit with such powerful memories, even people with excellent project management and problem-solving skills can find that they go out the window.

If you notice yourself having this kind of reaction, examine whether it's related to an event from your childhood, early career, or more-recent work. Consider, too, whether there's a pattern to the types of tasks and memories involved.

A lot of compelling research shows that you can heal these emotional wounds with compassionate self-talk. Here's an example of what that sounds like: "I've been disappointed with my performance in the past, and that's making me hesitant. That's a normal and understandable feeling. But I was a beginner then, and I'm not now. It's OK to learn through experience." Find and then reuse self-talk that works for you.

YOUR THOUGHT PATTERNS

If you're reasonably well disciplined in many areas but struggle in others, specific thought patterns may be to blame. Some cognitive factors involved in procrastination are pretty universal—for example, most of us underestimate the complexity of tasks that have long deadlines—while others are deeply personal.

Here's one of my own problematic patterns: When people tell me that they like a particular piece of my writing, I tend to jump to the conclusion that my other stuff is no good, which ties me in knots when it's time to write again—even though I've just received praise!

To figure out whether cognitive blocks are contributing to your procrastination, ask yourself: Does the task feel more difficult than the steps objectively are, given my skills? Do I quite enjoy (or at least get a sense of satisfaction from) a task once I start it? If the answer is yes, it implies that you tend to think about work in a way that makes it seem more unpleasant than it actually is. Try these strategies to navigate past your cognitive blocks:

Reverse brainstorm. Although I didn't use reverse brainstorming much before putting it into my book *Stress-Free Productivity,* it has since become one of my favorite tactics. When applied to procrastination, it involves considering what you would do to make your task impossibly hard or something you'd really want to avoid doing. Once you have those answers, you then come up with their opposites, which will make you feel less blocked.

For example, a task might seem unachievable if I imagine having to get it perfect the first time or having to do it in the exact same style as a colleague that I admire. The flip side of this is that the task will seem easier if I accept that missteps and imperfections will occur and if I approach it in my own way, harnessing my own strengths.

Another quick reframing technique is to think about all the ways that a task you're putting off is similar to one you can do easily and well. For example, I feel incredibly comfortable writing blog posts but not speeches. However, both involve making a few points quickly, keeping the language conversational, telling stories, and giving the audience a "that's me" experience. The key here is to define the parallels very specifically, as I have.

Learn to accept friction-filled work. Familiar, moderately productive tasks tend to be accomplished smoothly and can thus feel more satisfying than novel ones that are more difficult but offer greater potential value. That's why we often choose to check minor items off our to-do lists rather than tackle projects that will have more impact.

Don't make the mistake of equating frictionless work with productivity. Diverse teams, for example, often generate better ideas but can experience more tension. Novel work is often full of friction, which inherently slows progress and can cause stress. That leads to a common cognitive error called *emotional reasoning,* which happens when you overextrapolate from how you feel. When you feel tense and challenged, for instance, you might conclude that you're moving in the wrong direction or not making enough progress. It's important to understand this phenomenon and recognize when it's happening to you. *Metacognition,* or awareness of your thinking processes, can help you counteract mental errors.

Keep in mind that if you show up to do important work and approach it as strategically as you can, you will make progress, even if it doesn't feel that way. The more tolerant you are of friction-filled work, the less you'll procrastinate. Commit to doing the task that has the most potential for some period each day, even when it results in tumultuous feelings and thoughts.

Limit yourself to short work periods. When a task is important or we've been putting it off, we often believe we need marathon work sessions to get it done. In most cases this thinking stems from self-criticism sparked by guilt over lost productivity. But the prospect of slogging away on a challenging task all day tends to trigger more procrastination.

Here, you can try one of two strategies: (1) Plan to work on whatever you're avoiding for 10 minutes today and pick it up again tomorrow. Doing a little today will get you over the emotional hump of starting. (2) Plan to tackle it for 90 minutes today and cap it at that. If you're reasonably conditioned to deep work, it's likely that you can get yourself to do almost anything for that amount of time. It's a reasonable goal. You can also adapt this principle. For example, you might try a strategy like adding an extra 10 minutes each workday to the time you spend on the task until you get to two hours total. It's like training yourself for an endurance race.

IN ANY SELF-HELP article it's important to acknowledge the limits of the advice given. If a persistent mental-health problem like depression or anxiety is contributing to your procrastination, then you should pursue an evidence-based treatment, ideally with the help of a professional, not struggle along on your own. As your mood and anxiety improve, you'll be less prone to feeling overwhelmed and frozen.

Also, even though I've broken down the causes of procrastination into three categories here, they are interrelated. Your behavior (habits and systems), emotions, and thoughts are all connected. So no matter what the primary reason is for your tendency to put off certain tasks, any of the strategies here should help you more consistently attend to work that you have trouble mustering the energy or focus to complete. Think of it as a menu for combating procrastination, experiment with several options, and find the ones that work best for you.

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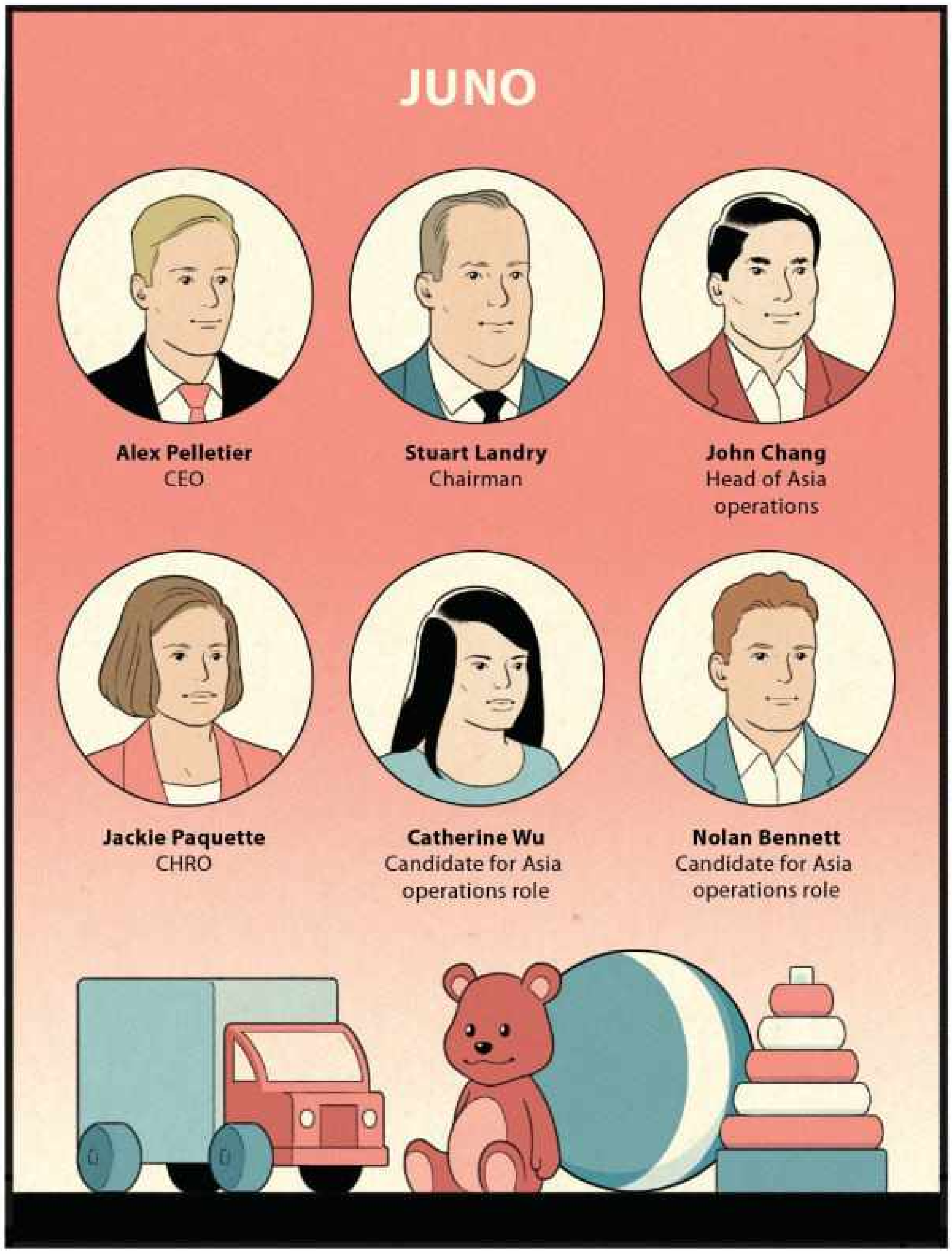
ALICE BOYES *is a former clinical psychologist and the author of* The Anxiety Toolkit, The Healthy Mind Toolkit, *and the new book* Stress-Free Productivity *(TarcherPerigee, 2022), from which this article is adapted.*



Case Study
What Does Diversity Mean in a Global Organization?

by David S. Lee

HBR's fictionalized case studies present problems faced by leaders in real companies and offer solutions from experts. This one is based on the HBS Case Study "Diversity in a Global Context: Making the Right Hire to Lead Asia" (case no. HK1301-PDF-ENG), by David S. Lee, which is available at ***HBR.org****.*

"WE HAVE A diversity problem."

Alex Pelletier, the CEO of Juno, a Toronto-based toy company, nodded his acknowledgment. He knew that Stuart Landry, his chairman, wasn't berating him for a problem they were already working to fix—Stuart just wanted to discuss it over lunch before the board met the following week.

One big agenda item would be Alex's decision on a key hire for Juno's Asia operations. The person would be the second-in-command, reporting to the head of the unit, John Chang, and would help oversee Juno's mainland-China manufacturing along with sales to Asian distributors, which had risen in recent years to meet the demand for Western entertainment. It was a critical role, and the plan was to find someone with experience in the region and the potential to grow the business who could eventually succeed John and take his board seat. Ideally the person would also diversify Juno's leadership ranks—which, to Alex's chagrin, were still mostly white and male.

Like many other CEOs, Alex had in recent years committed publicly to supporting diversity, equity, and inclusion initiatives internally and racial justice

Illustrations by ANUJ SHRESTHA

efforts externally. He'd spent much of 2020 both dealing with pandemic-related supply-chain delays and store closures and hammering out the company's diversity policies and plans. He and Jackie Paquette, Juno's CHRO, had launched programs focused on hiring, training, community support, and organizational culture, and by altering their promotion criteria and broadening their recruitment outreach, they'd increased diversity at headquarters. But that had yet to trickle up to the leadership team or the board.[1] John Chang was the only board member of color. And although the Asia team, based in Hong Kong, all came from the region, they skewed heavily male.

"So let's talk about the Asia role," Stuart continued. "Jackie says that you and John have two outstanding candidates."

"I definitely feel good about the options," Alex said. "We've met with both of them several times over the past three months, and to be honest, I'm quite torn."

In fact, the choice had been keeping him up at night. From its start as a small Canadian toy maker 10 years earlier, Juno had become a multinational leader in its sector, with Asia driving its future in terms of both production and sales.[2] This hire would assume most of the operational responsibilities so that John could focus on spearheading growth, but the newcomer would be another public face for Juno in the region and, as John's likely successor, would be scrutinized—certainly by the company's directors and employees, and potentially by DEI watchdogs, investors, and consumers. The problem was that Alex couldn't quite figure out what qualified as diversity for Juno in Asia.

Clearly eager to help, Stuart said, "Tell me about them."

CATHERINE WU

Ethnically Chinese, Catherine was born and raised in the United States by her parents, who had immigrated to New Jersey from Shenzhen as graduate students. After earning a degree in economics from Princeton, she joined a prestigious consulting firm, where one of her most successful engagements was with a global toy company. She soon developed a reputation as an expert in toy manufacturing and distribution. Catherine had been pursued by several of Juno's competitors but hadn't yet been persuaded to go in-house anywhere. Alex was honored that she was considering this role, and he thought that getting her would be a big win.[3]

Catherine hadn't lived in China or elsewhere in Asia for an extended period. But she'd visited family in mainland China and Hong Kong during school breaks, and after she'd started working, she'd taken business trips to the region every quarter or so. Through her consulting work she'd developed a network in Asia, primarily in Hong Kong, where her firm had an office.

She told Alex that she'd been watching Juno's performance before and after its IPO, in 2019, which had been small but established the company as an important industry player. He was impressed with her knowledge of their peer companies and her experience supporting one of them in the kind of expansion he wanted to see over the next five years. She'd led many of her firm's larger projects and according to her references was adept at managing teams of people from different parts of the world.

Alex had few concerns about Catherine's suitability for the job; his one hesitation involved her language skills.[4] She spoke Mandarin with her family but not consistently in a business

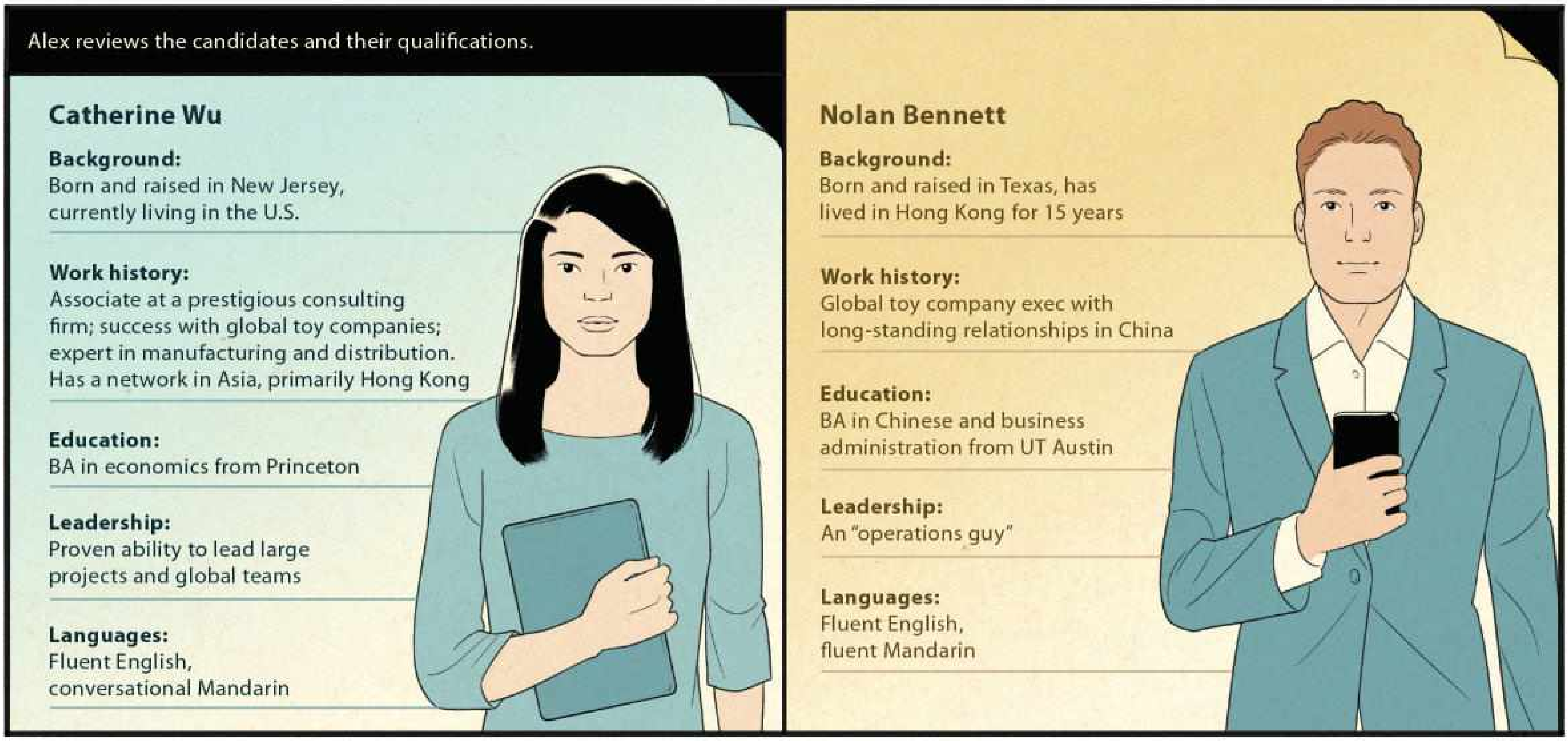
Case Study Classroom Notes

1. *What role might affinity bias—the tendency of people to like others who are similar to them—have played in the lack of diversity at Juno?*

2. *In 2020 global revenues for the toy industry exceeded $94 billion.*

3. *Globally, the Asia-Pacific region has the lowest representation of women in senior management roles, at 27%. The global average is 29%.*

4. *Given how much business is conducted in English throughout the world, how critical is it that an expat leader be fluent in the local language?*



context, and she couldn't read or write Mandarin fluently. John had pointed out that she'd have a team of Chinese nationals who could translate when necessary. But he acknowledged that it would highlight her Americanness, which might hinder her.

NOLAN BENNETT

Nolan, a white man, was also American, having grown up in Texas. But he had spent almost as much time in Asia as in the United States. After high school he'd lived in Beijing for two years as part of a volunteer program. He'd told Alex that those two years were both exhilarating and transformative for him, changing the course of his life and career.

Nolan learned to speak, read, and write Mandarin fluently and immersed himself in the culture. He returned home to study at the University of Texas at Austin and decided to double-major in Chinese and business administration with a view to eventually returning to the country that had captured his imagination.

Right after college he accepted a job at a global toy company and within three years seized an opportunity to relocate to Hong Kong, where he split his time between the city and facilities in mainland China.[5] That was 15 years ago, and he'd become a huge asset to his employer. He was one of the few foreigners in the manufacturing space who was fluent in Mandarin.

Nolan had also built relationships. Factory managers and other stakeholders appreciated his language capability, cultural understanding, and trustworthiness. Over time he'd amassed a good amount of social capital—what the Chinese refer to as *guanxi*—which was important for getting things done. He and his partner, a Hong Kong native, considered the city home and were raising two daughters there.[6]

Nolan loved his current job, but he was excited about Juno's growth potential. Alex wondered, though, whether he could take the Asia business to the next level, since his references considered him more of an "operations guy" than a visionary leader.

CONTEXT MATTERS

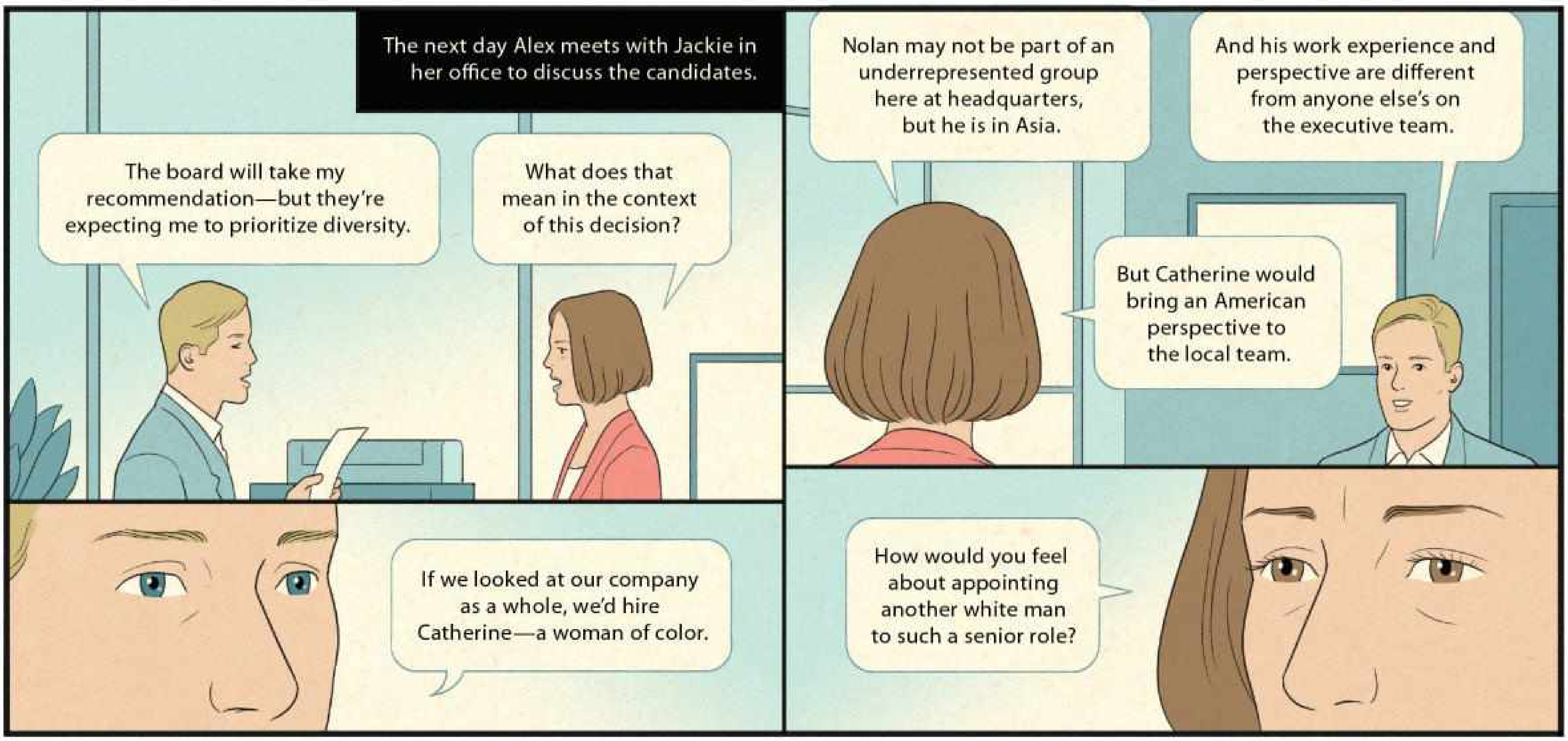
"What did Stuart think?" Jackie asked Alex the day after his lunch with the chairman. They were in her office at Juno headquarters.

"He asked a lot of questions but didn't really show his cards," Alex said. "I think he gets how tough a call this is going to be. He said the board will take my recommendation—but they're expecting me to prioritize diversity."

5. *Asia-Pacific is the second-largest market for toys and games in the world, and some 75% of all toys are produced in mainland China.*

6. *In 2021 expats made up about 10% of Hong Kong's population of 7.5 million.*

7. *How should a multinational company go about creating a definition of diversity that works across a global context?*



"Of course they are!" Jackie said. "That's a huge priority for all of us. But what does it mean in the context of this decision?"

They'd been going back and forth about this for a while now and kept flip-flopping. John, however, had declared a preference. He conceded that both candidates were well qualified but liked that Nolan would bring diversity to his all-Asian team.

"Right," said Alex. "That's what John keeps driving home. If we looked at our company as a whole, we'd hire Catherine—a woman of color—for noticeable diversity that would show up in our metrics and in the executive photos on our website." They had talked before about the difficulty of accurately measuring diversity: For example, only some observers considered sexual orientation as well as race and gender identity, so Alex's being gay often didn't count.[7]

"Exactly," Jackie said. "Plus it would signal to our employees that DEI is a priority. And we know representation matters. If Catherine did end up succeeding John, she'd increase diversity on our board. But, to John's point, this hire will be working in *China,* not Canada. Nolan may not be a member of an underrepresented group here at headquarters, but he is in Asia. He says he's often the only non-Chinese person in meetings and at factories."[8]

Alex nodded. "And Nolan's work experience and perspective are different from mine or yours or John's or anyone else's on the executive team. Catherine seems more aligned in her thinking with the rest of us."

"But we can't forget that Catherine would bring an American perspective to an Asian team," Jackie replied. "And being a woman also brings a different viewpoint." They'd discussed this point many times, especially regarding the Asia division, which was 70% male. They both knew that in executive ranks it was all too common for the only woman to be, like Jackie, in a support role such as HR.

"Women are the ones buying our toys for their children," Alex mused. "Of course, Nolan is the one with kids..." He stood and started pacing. "I'm reminding myself that this is a good problem to have. We've got two extremely strong candidates, and either one can help us meet our goals." Juno had just logged the best quarter in its history, and he wanted that success to continue.[9]

"They bring diversity in different ways," Jackie said, pointing to the DEI statement pinned to her wall. Alex glanced at it, remembering the hours they'd spent poring over the wording. They'd outlined important and lofty goals, but it was challenging

8. *In a 2021 Coqual survey only 43% of respondents in China said that race is part of how they define their ethnicity. Other factors they cited include country of birth, language, and religion.*

9. *The pandemic led to greater demand in the industry, with U.S. toy sales increasing by 16% and China toy sales by 2.6% in 2020.*

Experience

to convert them into concrete guidance, especially for decisions like this one.

"As two Canadians," Jackie said, "I worry that we're seeing this through a specific lens. How would you feel about appointing another white man to such a senior role?"

GETTING IT RIGHT

The following week, on the way to dinner with the board, Alex looked out his taxi window at the Toronto skyline and thought about his dilemma. He felt a deep sense of responsibility—to Juno's employees, shareholders, and customers—to get it right.

Jackie's question rang in his ear. If he chose Nolan, he might seem to be going back on his DEI promises. At HQ, Nolan did not represent diversity. Catherine would be a woman of color in Juno's leadership pipeline and presumably on the board. But a directorship was at least five years off and depended on her being an able successor to John.

Alex would have to make his recommendation first thing at the quarterly board meeting the next morning. Which candidate was the right person for the job at this moment?

DAVID S. LEE, *a principal lecturer at the University of Hong Kong Business School, teaches, researches, and advises on topics related to ethics, governance, and fintech.*

Whom should Alex recommend that Juno hire? The experts respond.

DAISY AUGER-DOMINGUEZ, *the chief people officer for VICE Media, is the author of* Inclusion Revolution.

If Alex and his board want to meet their goals for diversity now and in the future, they should hire Catherine.

She is a proven leader who understands the Asian market and has a connection to the region.

I get the concern about her limited language skills, but given that most international business is conducted in English, I suspect that it wouldn't be all that much of an issue. And Catherine's Chinese-American heritage is a huge asset, because existing employees, customers, and other stakeholders who share her background—not to mention future hires—would be able to see themselves reflected in the leadership ranks. Although Nolan might provide diversity in that specific location, he would still be another white man at the senior level. Catherine, by contrast, would be a visible break from precedent, someone who could eventually bring much-needed gender and ethnic diversity to the board. And gender is one lens that applies everywhere—from Canada to

China. Increasing the representation of women in the leadership ranks should be a clear priority for Juno.

We know John's view, but I'd suggest that Alex and Jackie arrange for a few other regional leaders to meet with both candidates. I took that approach when recently hiring team members in Asia-Pacific and the Middle East. Local employees described how disconnected they'd felt from decisions made at headquarters, so it was important to get their buy-in before making the final call. I believe that we earned their trust and loyalty as a result.

Another way to decide between two equally qualified candidates is to go back to the criteria you established for the role and hold yourself accountable to them. Ideally, Juno has a structured hiring process in place, and my informed guess is that Catherine has more of the attributes necessary for success in the role than Nolan does. Adhering to the criteria will prevent Alex, Jackie, John, and the board from letting bias creep in and falling back on what they know.

Finally, if Catherine is hired, Alex, Jackie, and the board need to commit to doing what it takes to set her up for success. That includes having candid conversations about what it means for a Chinese-American woman to fill this role and what it will take for the organization to accept and embrace her as a leader. The interview process will have given them ideas about areas in which she can and should grow, including language skills and cultural understanding. What will they do to ensure that she is welcomed, supported, and respected as a new leader?

Equity is not just about hiring people from underrepresented groups. It's also about creating a sense of inclusion and belonging for them and reducing barriers so that they thrive in the jobs you've put them in. That's how Catherine—and future Catherines—will make a difference at Juno.

YUTING WANG *is the head of people and culture for Hong Kong and Macau at Roche.*

If Juno's goal is to win in Asia—or, more precisely, in mainland China—my advice is to hire Nolan.

I understand why Alex is reluctant to appoint another white man, given the difficulty Juno has with diversity. But in my personal view, Nolan is the better choice.

This dilemma will most likely feel familiar to anyone who is currently working in human resources in the Asia-Pacific region. Whereas multinational companies used to fill their high-level positions in China with expatriates who had expertise in product and branding but didn't speak the language or understand the culture and had no experience in the market, times have most certainly changed. Now it's generally understood that local knowledge is crucial to effectively managing Chinese employees and attracting Chinese consumers.

Recently, at a global company where a friend of mine works, an ethnically Chinese woman who was born in America and had never lived in China was hired to lead its business in that country. The decision was tough and came after the company had passed over several local candidates. But the woman departed within two years. She had been hampered by her inability to speak proper Mandarin or to relate to her team and external partners. The company ended up replacing her with someone internal.

That is the risk I see with choosing Catherine. I believe that she's talented and smart enough to recognize the importance of embracing the Chinese culture and immersing herself in it, but the initial disconnect will be hard for her to overcome. Nolan, on the other hand, *gets* China. He has put tremendous effort into learning the language and has spent a total of 17 years with feet on the ground in the region. It's obvious to me that he would have a better chance of success in the role.

That is no doubt part of the reason why John is in favor of hiring Nolan, though adding diversity to his Asia team is his main consideration. Alex and Jackie should pay attention to his opinion.

They should also remember that diversity involves much more than visible differences such as gender and race. Educational background, professional knowledge, personality type, thinking style, and life experience are factors as well, and Nolan's profile suggests that he would be able to serve as a bridge between the Chinese team and headquarters, helping to translate issues for both sides.

That said, Juno's leaders still need to address the lack of diversity at the company as a whole, especially as it relates to gender—an issue that cuts across regions. Given the underrepresentation of women at senior levels, they should take immediate and concrete action, such as inviting some women of color to become independent board directors. They should also work on improving their systems and processes so that they have a sustainable plan for hiring and promoting more women.

Alex is lucky to have a choice between two great candidates. From my perspective, Nolan would be best suited to the Asia role, and Alex can easily make that case to the board and the rest of the organization. Perhaps, as the company seeks to become more diverse, there will be another, better, spot for Catherine.

HBR Reprint R2203M
Reprint Case only R2203X
Reprint Commentary only R2203Z

Experience

SYNTHESIS

The Case for Welcoming Immigrants

New books show how newcomers enrich economies and cultures.

by Alison Beard

ONE OF THE best lines in the musical *Hamilton* comes as its hero, Alexander, the American revolutionary born in Nevis, and Lafayette, his French brother-in-arms, celebrate their impending victory over the British. "Immigrants," they say with a high five, "we get the job done." The lyric inspired a diverse group of rappers—K'naan, Riz Ahmed, Residente, Snow Tha Product—to build a full-length track around it, and it's now a slogan for immigrant communities everywhere, featured on posters and mugs.

It's also the theme of a spate of new books. Some draw on reams of data. Others focus on personal stories. But all make the same point: Immigrant populations power economies and enrich cultures. In an age when nativist sentiment is on the rise, their authors persuasively argue that developed countries should not shun newcomers but welcome them with open arms.

In ***8 Billion and Counting,*** the demographer Jennifer D. Sciubba lays out some facts: 2% to 4% of the world's people—about 272 million—live outside their birth countries, a percentage that has held steady for the past 50 years. The United States hosts the most immigrants, with nearly 45 million, while the Persian Gulf states have the world's highest proportion of foreign-born residents. Sciubba outlines the many drivers of migration—political conflict, economic opportunity, geographic proximity, family ties—and emphasizes how critical the import and export of talent is to national prosperity. "Poorer countries need...their emigrants [to] send home remittances," she writes, while rich countries that receive migrants "have all benefited from an influx of high- and low-skilled workers to fill domestic labor shortages." She notes that "openness to immigration is a choice, not a necessity," even for nations with aging citizens and low birth rates, but adds that "when countries open...it's often for economic reasons; when they close their doors, more often than not, it's for nativist ones."

The Immigrant Superpower, by Tim Kane, a Stanford University research fellow, argues for the mostly open door. Kane focuses on three ways in which

Illustration by TOMASZ WOŹNIAKOWSKI

immigrants enhance U.S. power: brawn (labor), bravery (military service), and brains (innovation). Kane explains how each wave—from the huddled European masses to newer arrivals from Asia, Latin America, and elsewhere—has been willing to take on work its predecessors no longer will. Thus jobs aren't stolen. Output increases. For U.S. states, immigration growth and GDP move in tandem. (And OECD members with higher proportions of immigrants are richer than those with lower ones.)

The foreign-born also volunteer for military combat and win Medals of Honor proportionally more often than the native-born, says Kane. And in science and business newcomers achieve outsize results: Foreigners account for 40% to 50% of U.S. PhD students in STEM fields and, visas permitting, often stay. Immigrants create 30% of new U.S. companies and are disproportionally represented among U.S. patent holders and Nobel Prize winners. Sergey Brin and Esther Duflo are exemplars, not outliers.

The sociologist Nancy Foner agrees. Her book ***One Quarter of the Nation*** presents data showing that immigrants and their children account for 26% of the U.S. population and explains how they have changed local economies, communities, and politics for the better. Her stats: A quarter of U.S. physicians and surgeons are foreign-born; as of 2013, 28% of "Main Street" U.S. businesses were owned by immigrants; and in 2018 more than half the 91 U.S. start-ups valued at $1 billion or more had one immigrant founder, while more than 80% (!) had immigrants in key management or product development roles. She points to sectors that immigrants have either rescued with their labor (meatpacking, caregiving) or revolutionized with their fresh perspectives (retail, restaurants). As workers they are "complementary" to the native-born, she says. As executives they are "fueling our information age."

Streets of Gold, by the economists Ran Abramitzky and Leah Boustan, adds to this pro-immigrant drumbeat with a data-driven analysis of not just immigrants but also their legacies. Using AI to mine Ancestry.com genealogical histories, government records, and public interviews and speeches, the authors tracked millions of immigrants and their offspring—"everyone from bankers to errand boys"—over decades to see how they fared in U.S. society. They highlight two key findings: Today's newcomer families (born in countries from Mexico to Laos) move up the economic ladder just as quickly as did past émigrés from Europe, with the "true ascent" typically happening in the second generation. And this success "does not come at the expense of [the] U.S.-born." Immigrants don't find "streets of gold," the authors write. They "pave their own way."

Stories of individuals who are doing just that—overcoming hardship to achieve success—are everywhere nowadays, from the acclaimed film *Minari* to the Netflix documentary *Immigration Nation* to yet more new books. *Journeys from There to Here* presents a leading U.S. immigration lawyer's clients. Two memoir-polemics—*You Sound Like a White Girl,* by Julissa Arce, and *Go Back to Where You Came From,* by Wajahat Ali—explain, with respective outrage and humor, just how hard (and maybe unnecessary) fitting in can be. *Brilliance Beyond Borders* profiles "trailblazing" immigrant women, while *Somewhere We Are Human* offers essays, poems, and art from immigrants and refugees.

But the anecdotes that may most pique the interest of HBR readers appear in ***Crossing Borders,*** by Ali Noorani, the executive director of the National Immigration Forum. One details how the Idaho dairy industry, originally built by Dutch settlers, thrives today thanks to Latino workers and the yogurt company Chobani, founded by the Turkish-born Hamdi Ulukaya. As a result, dairy owners are partnering with the company and local labor groups to lobby for laws that will make it easier to gain legal entry to and citizenship in the United States. Noorani shows how a similar scenario played out in an Iowa pork-processing town and how immigrant medical and food workers carried the country and its businesses through the worst of the pandemic.

Indeed, corporate leaders may need to be the ones who shift the narrative on immigration from negative to positive. Perhaps they will find a way to ensure that talent at every level flows more freely between nations to create greater wealth for all. Perhaps they can help those with nativist views see that the neediest people are often the ones who will take the biggest risks and work the hardest to realize their—and their new countries'—fullest potential.

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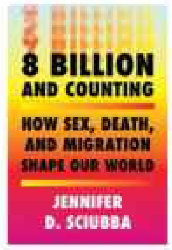
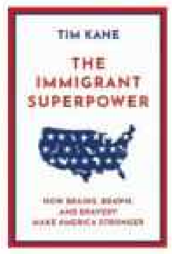
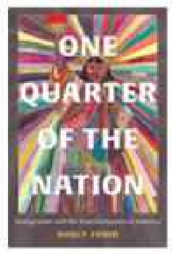


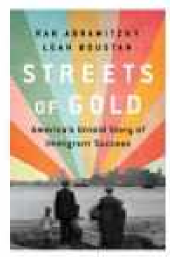
8 Billion and Counting
Jennifer D. Sciubba
Norton, 2022



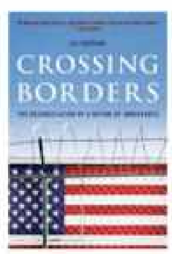
The Immigrant Superpower
Tim Kane
Oxford, 2022



One Quarter of the Nation
Nancy Foner
Princeton, 2022



Streets of Gold
Ran Abramitzky and Leah Boustan
PublicAffairs, 2022



Crossing Borders
Ali Noorani
Rowman & Littlefield, 2022

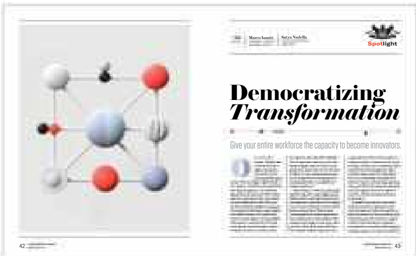
ALISON BEARD *is an executive editor at* Harvard Business Review.

SPOTLIGHT

The Digitally Literate Organization

Leading in the age of data, algorithms, and AI | **page 41**

Each article in this Spotlight is available as a single reprint. The complete Spotlight is also available as a package.
HBR Reprint R2203B



Democratizing Transformation

Marco Iansiti and Satya Nadella | page 42

Many companies struggle to reap the benefits of investments in digital transformation, while others see enormous gains. What do successful firms do differently?

This article describes the five stages of digital transformation, from the traditional stage, where digital and technology are the province of the IT department, through to the platform stage, where a comprehensive software foundation enables the rapid deployment of AI applications.

The ideal is the native stage, whose hallmarks are an operating architecture designed to deploy AI at scale across a huge, distributed spectrum of applications; a core of experts; broadly accessible, easy-to-use tools; and investment in training and capability-building across the enterprise.

HBR Reprint S22031

Developing a Digital Mindset

Tsedal Neeley and Paul Leonardi | page 50

Learning new technological skills is essential for digital transformation. But it is not enough. Employees must be motivated to use their skills to create new opportunities. They need a digital mindset: a set of attitudes and behaviors that enable people and organizations to see how data, algorithms, and AI open up new possibilities and to chart a path for success in an increasingly technology-intensive world.

This article lays out the basic principles of developing a digital mindset across the workforce, drawing lessons from Philips, Moderna, and Unilever.

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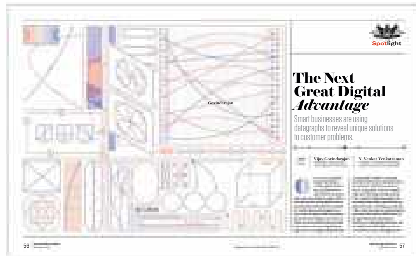

The Next Great Digital Advantage

Vijay Govindarajan and N. Venkat Venkatraman
page 56

We've all seen the signs in front of McDonald's announcing "Over X Billion Served" and have watched the number rise over the years. But tracking how many burgers are sold every day, month, or year is a relic of the past. Today ask: Do we know where each consumer buys her burgers? At what time? What does she drink with it? What does she do before or after buying a burger? How can we satisfy more of her needs so that she keeps coming back? Datagraphs capture this information, helping to reshape competition in every sector. Leaders must invest in upgrading their data architecture to enable a real-time, comprehensive view of how consumers interact with their products and services so that they can develop unique ways to solve customer problems.

HBR Reprint S22033

HOW WE DID IT

The CEO of New Mountain Capital on Using PE Management to Ignite Growth

Steve Klinsky | page 35

Twelve years ago, in 2010, the private equity firm New Mountain Capital acquired a little-known Wisconsin software company, RedPrairie, for $565 million. In September 2021 it sold that same company, now named Blue Yonder, for $8.5 billion to Panasonic. About $5.7 billion of the gain had come from organic growth, not acquisitions. That success wasn't driven by any specific lucky break, technology breakthrough, or new product. Rather, it was the result of continual investment and improvement in the company's management, strategy, and governance—the same approach that best-in-class private equity firms have employed for years across dozens of industries and thousands of companies. By explaining how New Mountain transformed Blue Yonder, this article shows how private equity firms create value for businesses and for the economy. And it underscores how much the PE industry has evolved since its inception.

HBR Reprint R2203A

MANAGING YOURSELF

How to Stop Procrastinating

Alice Boyes | page 143

Do you keep postponing work you need to do? The problem probably stems from one of three things: your habits and systems (or lack thereof), your desire to avoid negative emotions (like anxiety and boredom), or your own flawed thinking patterns (which can make a task seem harder than it is). Luckily, there are simple strategies for managing each.

To develop good habits, for instance, do your important work in a consistent pattern daily: *After I do this, I do my deep work.* Devise a system for starting new tasks (drawing on one you've handled well); that will make it easier to get the ball rolling. When a task makes you anxious, do the easiest part first and progress from there; motivate yourself to do a boring task with a reward for completing it. And if you're cognitively blocked, consider what would make a task impossible—and then identify its opposite.

Novel work often is filled with friction. You must recognize that tension doesn't mean you're not making progress. And if a project still feels overwhelming, tackle it in small chunks of time, not big ones.

HBR Reprint R2203L

Features

TALENT

Designing Work That People Love

Marcus Buckingham | page 66

Resignations are at an all-time high, and companies desperate to fill vacancies are trying everything from pay raises to trendy perks. But those interventions are falling short, because the real problem, as the author explains, is that so many jobs are stressful, meaningless, and unlovable.

Buckingham's data on what keeps employees engaged (from his work at ADP Research Institute) suggests that companies should change their approach to performance management to take advantage of each employee's unique skills and passions. That necessitates three mindset shifts: viewing employees as the key stakeholders in the organization; moving away from standardization in performance management tools; and trusting employees to accomplish their performance goals the way they see fit.

No company today is yet the full "Love + Work" organization that Buckingham describes, but lululemon, Walmart, Amazon, McKinsey, and Cisco are among those that have begun to embrace some of its characteristics and have seen improvements in both retention and overall performance.

HBR Reprint R2203C

STRATEGY

When Your Business Needs a Second Growth Engine

James Allen and Chris Zook
page 76

Traditionally, the most reliable way for a firm to find its next wave of growth was to apply the capabilities of its core business in an adjacent market. But recently a new pattern has begun to emerge. More firms are learning the art of building large *second* cores—what Bain's Zook and Allen call *engine twos.* Given that in the past five years, 60% of big public companies have seen their growth stall out or stagnate—often because of technological disruption—finding an engine two has become increasingly imperative.

What does it entail? Successful engine twos have four factors in common: They target markets where the profit pool is sizable and growing or shifting, as Amazon's cloud computing business did. They have a differentiated competitive advantage, which is often built up through acquisitions, as happened at Disney+. They adopt entrepreneurial approaches, like Bradesco's digital unit, Next, and leverage the scale and assets of the original core, as the industrial cleaning company Ecolab's new water-purification business did.

In combination these four elements magnify one another's effects, often creating businesses that have much greater potential than firms' original cores.

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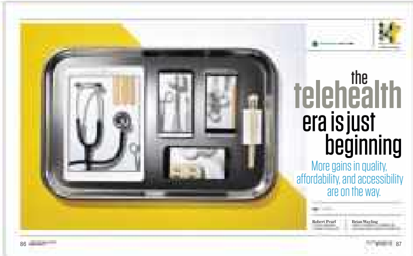
HEALTH CARE



The Telehealth Era Is Just Beginning

Robert Pearl and Brian Wayling
page 86

Contrary to what many people think, virtual health care, also known as telemedicine or tele-health, is much more than a cheap digital knockoff of in-person care. When used appropriately, it improves patient health, reduces costs, and makes care more equitable and accessible to anyone with a smartphone. Its use has soared during the Covid era—and the authors argue that providers around the world should aggressively strive to tap its full potential even after the pandemic abates.

Pearl and Wayling take readers inside Kaiser Permanente and Intermountain Healthcare, two of telehealth's earliest adopters and most effective users in the United States. They show how telehealth can reduce expensive and unnecessary trips to the ER, reduce America's chronic-disease crisis, address disparities in care, make specialty care faster and more efficient, and provide access to the best doctors. And they outline what's needed to spur adoption to a fully telehealth-driven system. Employers, who currently provide health insurance coverage to nearly half the U.S. population, could drive such a change by banding together and designing new reimbursement and care delivery approaches. The resulting savings could amount to tens of billions of dollars a year.

HBR Reprint R2203E

DIVERSITY

How to Build an Anti-Racist Company

James D. White | page 96

As a Black man with three decades of experience in the corporate world, the author has a deep understanding of how to conceive and implement diversity, equity, and inclusion agendas from the top down. Following the 2020 murders of Ahmaud Arbery, Breonna Taylor, and George Floyd, he was approached by numerous executives who wanted to act to combat systemic racism and sought his advice on how to proceed. So White and his daughter Krista wrote the book *Anti-Racist Leadership* to share what he has learned.

In this article, adapted from the book, White provides guidance for getting started. Leaders should listen to and learn from colleagues across the organization, enlist senior executives in the cause, audit the culture, and document what their companies are already doing to foster diversity and inclusion. They should then establish benchmarks for measuring progress, build "action learning teams" to spearhead the effort, and develop and communicate an overall plan.

As the world goes into economic recovery mode, leaders have a brief window in which to reimagine their approach to the workforce. This article can help them seize the opportunity and bring fully inclusive cultures to the organizations they run.

HBR Reprint R2203F

RISK MANAGEMENT

A Better Approach to Avoiding Misconduct

Wieke Scholten, Femke de Vries, and Tijs Besieux
page 104

Despite substantial regulatory reform following the 2008 financial crisis, financial firms are still suffering from fraud and other forms of ethical misconduct. As a result, they have collectively paid out more than $400 billion in fines over the past 12 years. A 2019 Harvard Business School study found that among a sample of *Fortune* 500 companies, more than two instances of internally substantiated misconduct occur each week, on average. It's becoming increasingly clear that the traditional approach to financial regulation—imposing formal rules and investing in a strong compliance function to ensure that institutions, managers, and employees comply with those rules—cannot protect firms against excessive risk-taking and financial misconduct.

The authors of this article draw on their experience advising some of Europe's largest financial institutions to present an alternative approach to compliance that is based on the principles and discoveries of behavioral psychology. It involves understanding the contextual drivers of human behaviors and introducing small changes, or "nudges," to eliminate misconduct at the source.

HBR Reprint R2203G

SALES

Stop Selling. Start Collaborating.

Christoph Senn | page 112

The triple fit canvas is a sales framework designed to facilitate collaborative value creation between sellers and buyers. Inspired by the blue ocean strategy canvas developed by Chan Kim and Renée Mauborgne and the business model canvas developed by Alexander Osterwalder and Yves Pigneur, the triple fit canvas is both a diagnostic and an action framework. It extends a limited, product-centric view to a broader, customer-centric perspective. It shifts the focus from selling existing products and services to helping create new ones. In this article the author details the key components of the triple fit canvas and describes how companies such as BMW, Konica Minolta, and GAP have benefited from it.

HBR Reprint R2203H

EXPERIMENTATION

Act Like a Scientist

Stefan Thomke and Gary W. Loveman | page 120

Though they've been warned for decades about the dangers of overrelying on gut instinct and personal experience, managers keep failing to critically examine—much less challenge—the ideas their decisions are based on. To correct this problem they need to think and act like scientists. That requires doing five things: (1) being a knowledgeable skeptic and relentlessly questioning assumptions; (2) investigating anomalies—things that are unexpected or don't look right; (3) devising testable hypotheses that can be quantifiably confirmed or disproved; (4) running experiments that produce hard evidence; and (5) probing cause and effect.

Drawing on the experiences of Harrah's Entertainment, Sony, Bank of America, and Lego, Thomke and Loveman show how scientific methods can help companies discard ineffective practices, increase marketing and operational efficiency, boost customer satisfaction and sales, find new sources of growth, and even turn around struggling businesses.

HBR Reprint R2203J

LEADERSHIP DEVELOPMENT

How to Get the Most out of Peer Support Groups

Boris Groysberg and Robert Russman Halperin | page 130

For years business leaders have turned to peer forums—groups of four to 10 people with similar interests who meet regularly for confidential conversations—to share their problems, find support and insights, and learn and grow. But because such forums are small and private, many people don't know much about them. In this article two authors who have studied forums extensively open a window into them. Drawing on their research, Groysberg and Halperin explain the different types of peer forums, how they can benefit individuals in a variety of jobs and organizations, and the principles and practices that make them successful, as well as the challenges they sometimes face.

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Life's Work

"By the time I was 30 it hit me that this wasn't a hobby. It was something that I wanted to spend most of my energy trying to do better."

Alberto Cristofari/contrasto/Redux

Jhumpa Lahiri

The daughter of a librarian, Lahiri loved reading and writing at an early age. But she made it through college and four graduate programs before compiling the short story collection that became her first publication and, to her surprise, won a Pulitzer. Other stories and novels—most drawing on her experiences as a Bengali American—followed before she moved to Rome and began writing and publishing in Italian and translating between it and English. She teaches at Princeton, and her new book is called Translating Myself and Others. **Interview by Alison Beard**

HBR: When *Interpreter of Maladies* won the Pulitzer, how did it feel?

LAHIRI: Strange and bewildering. Very premature. I worried that they had chosen the wrong book, because there were no expectations for it. It was published as a paperback original. I was an unknown author. No book tour was planned, very little publicity. Then it started getting critical attention, so I suddenly found myself on planes and trains to do events. Still, nobody expected it to gain the attention that the Pulitzer eventually brought it.

Did you feel pressure to match that success going forward?

What I realized is that three very generous people who were on a committee and believed in my book granted me that recognition. I had that perspective because when I received that prize, it didn't really correspond to my sense of myself and where I was at that point in my journey.

You moved from stories to a novel and back again, and now you're writing in Italian. Why not stick with what was already working?

I just follow my inspiration. Writing is a calling. I've never thought, *Is this going to be successful? Is this going to strike a chord? Is this going to please people? Is this going to get me a lot of readers? Is this book going to sell well?* My publishers and my agent think about those things, and that's their job. But my job is different. Italian was the language that called to me at a certain point, and then it became—quite surprisingly, but now rather definitively—the language of my creative expression.

In your new book you say that a new language allows you to "experiment with weakness."

It's important to not always be in control, to be in communication with a part of you that is still insecure and trying to figure things—and yourself—out. Writers are in some ways always children. Things are happening around them, and they're observant, reactive, and vulnerable. A different language enables you to understand what you take for granted and what you can't because you're working at a disadvantage. You're questioning everything you're saying, which isn't necessarily a bad thing. It allows you to see in a different way, with a different spirit, a different state of mind. I feel that when I write in Italian: a different relationship to reality. I will always feel like an outsider wherever I am, and I continue to explore that in my work and my life. Translation is a way of insisting on that, because you are always outside of the text.

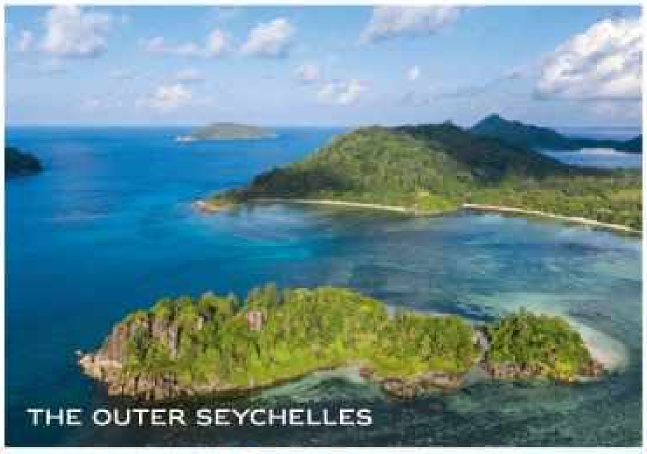
Which professional relationships have been most important to you?

I think the deepest influence has come from the writers I know only through their work. I'm sitting in my study now, staring at my bookcase, and looking at Chekhov and Virginia Woolf and Dante and Horace and Joyce. These are the relationships that made me a writer and a teacher, and without them there would be no editorial, publishing, or agent relationships.

HBR Reprint R2203P

FOR MORE FROM JHUMPA LAHIRI, GO TO **HBR.ORG**.

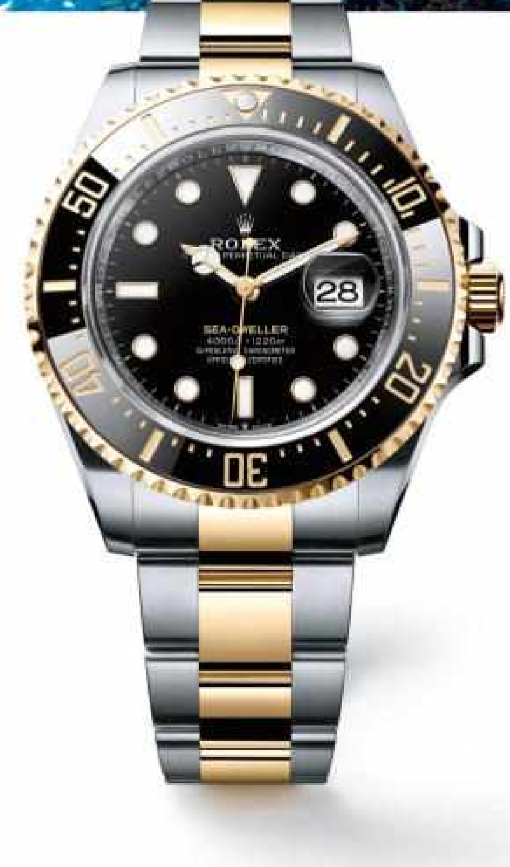

CSC:Miami
Content Supply Chains must be forensic in their detail.
Television broadcasters have long relied on instinct, market knowledge and spreadsheets to forecast TV viewership - but instinct needs to partner with information; market knowledge is never enough; and spreadsheets are no way to excel.
As witness to these challenges, Fractal undertook its own detective work.
By combining AI, data engineering and user-centric design, Fractal created an industry-first TV forecasting system for Europe's leading media and entertainment company. The result? Up to 30% improvement in forecast accuracy.
Fractal: perfectly targeted and timed TV, no drama.
fractal



ON OUR WATCH

Hope can now be spotted across all our planet's seas and oceans. Sites are made into aquatic havens by local communities, to safeguard the richness and diversity of the ecosystems they depend on. Sylvia Earle's invaluable experience as an explorer and marine biologist continues to help further their goal, through her organization, Mission Blue. Together, they have created over 130 Hope Spots and counting. Carrying a message of hope for generations to come. It is that vision, that dedication to a perpetual planet, which we are proud to stand by. **For as long as it is needed.**

#Perpetual



OYSTER PERPETUAL SEA-DWELLER

MISSION BLUE

ROLEX SUPPORTS MISSION BLUE
IN ITS COMMITMENT TO PROTECTING
30% OF THE OCEANS BY 2030

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