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Harvard Business Review

41 AI-Powered
Marketing

82 Why Strategies Fail

102 SPACs: What
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July–August
2021

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ability
to adapt

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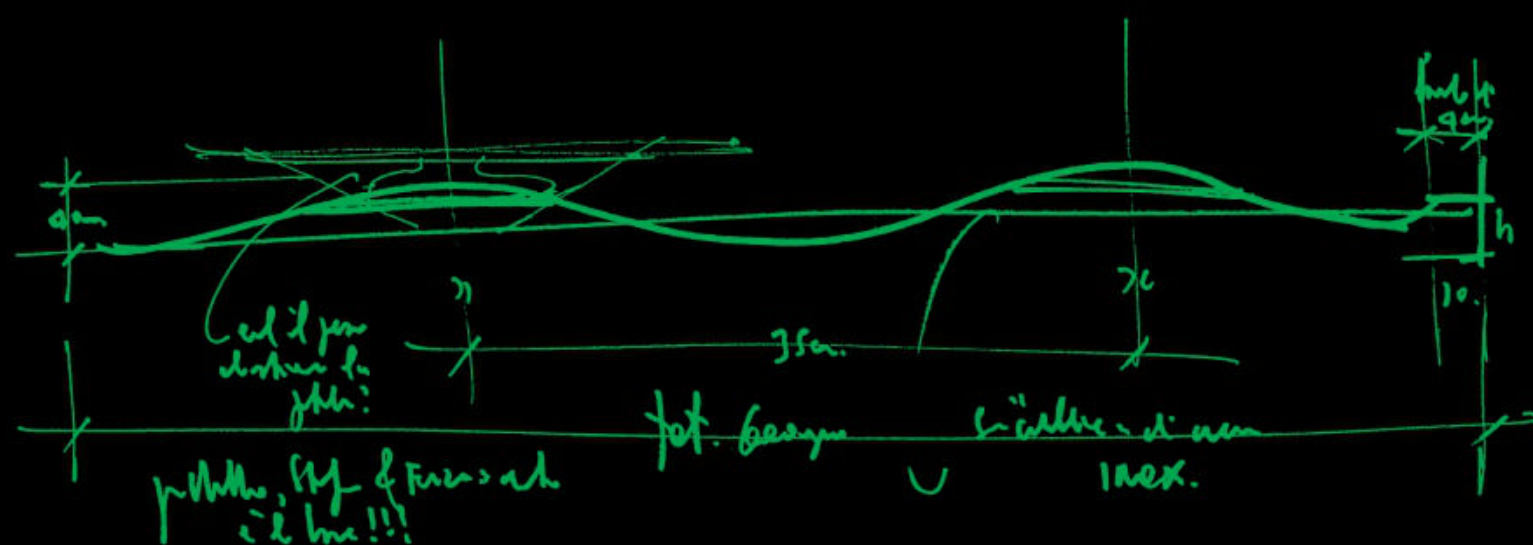
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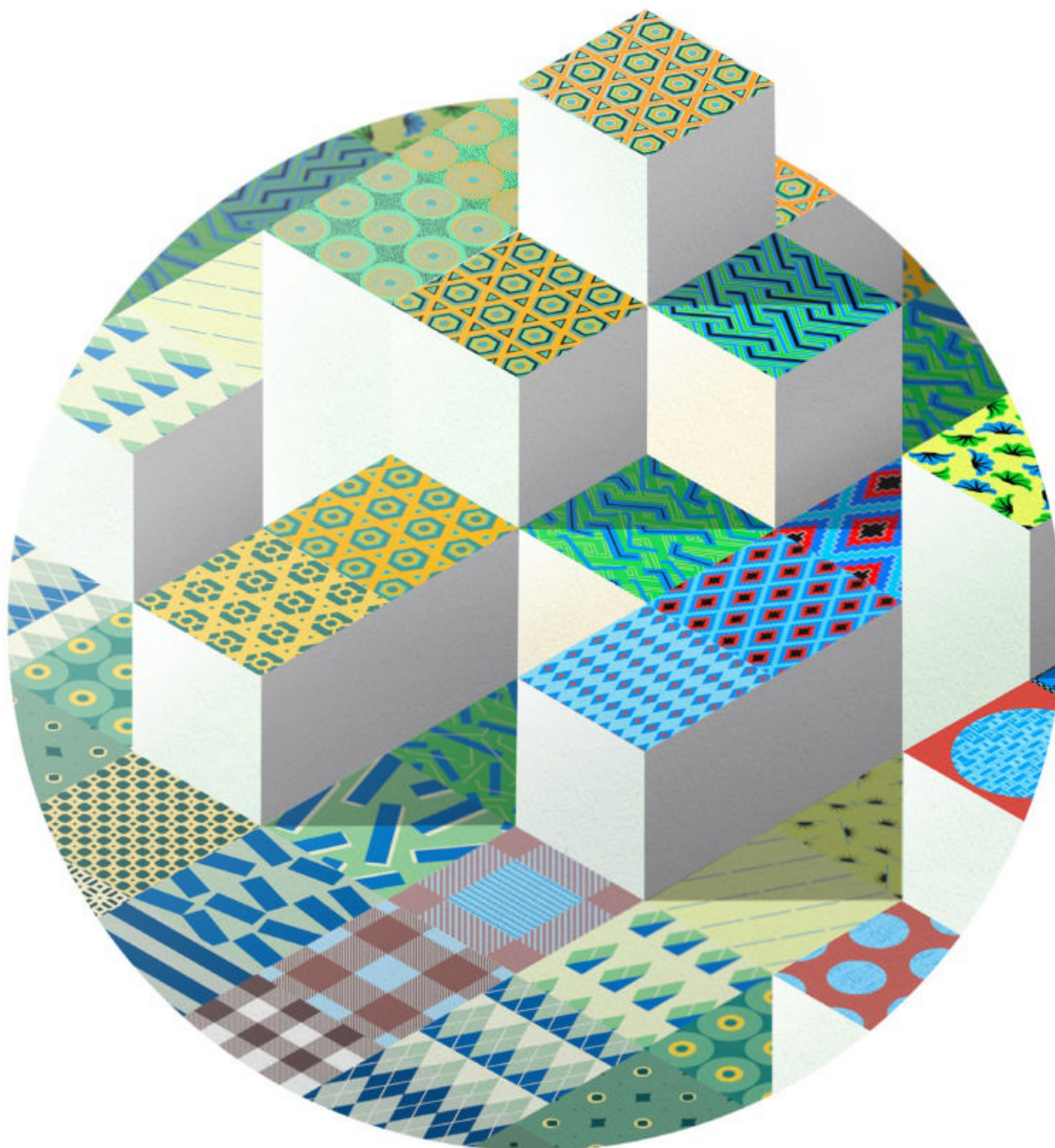
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“Of all a company’s functions, marketing has perhaps the most to gain from artificial intelligence.”

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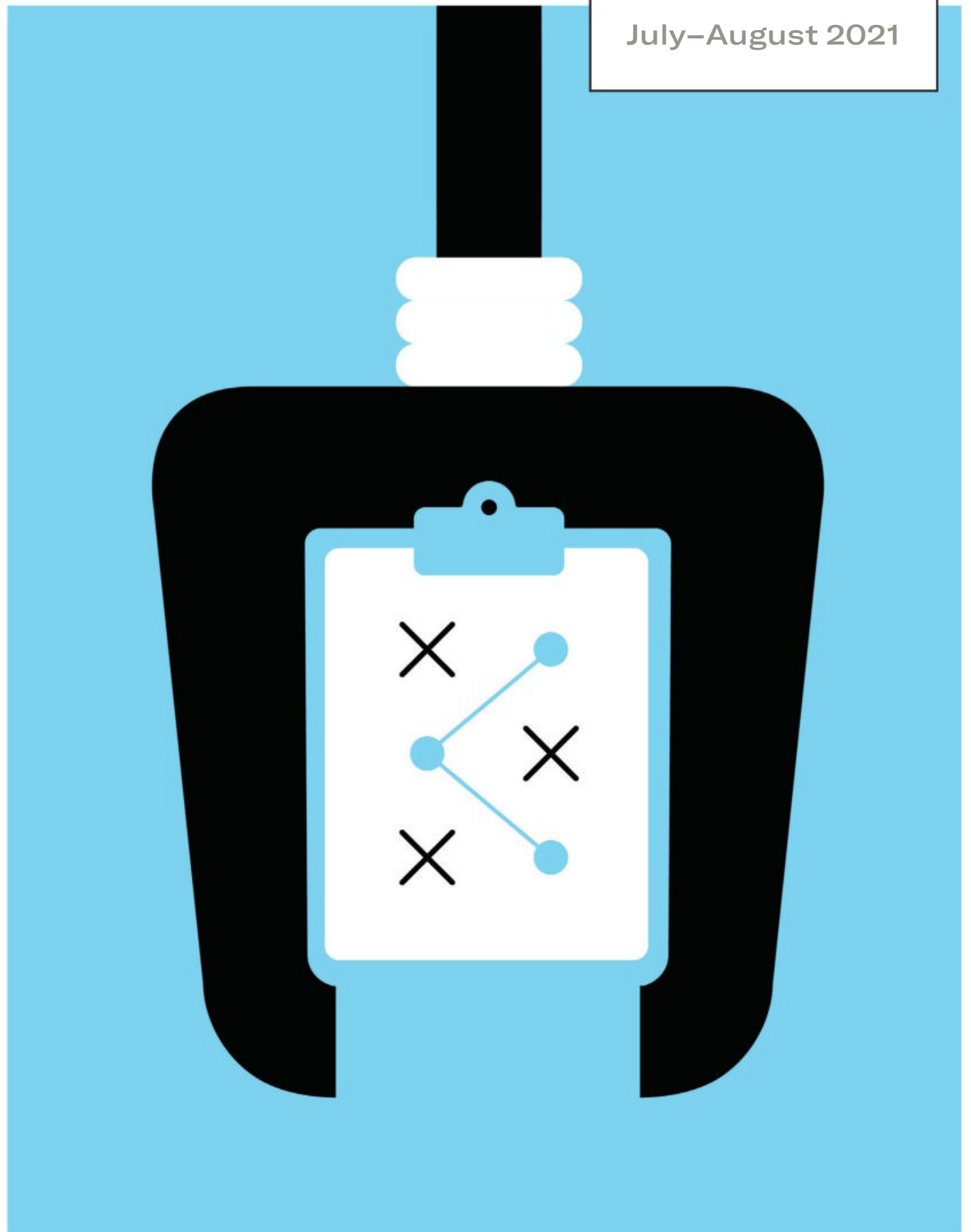
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Options shown. 2021 LS vs. 2020/2021 competitors. Information from manufacturers' websites as of 10/8/2020. ©2021 Lexus

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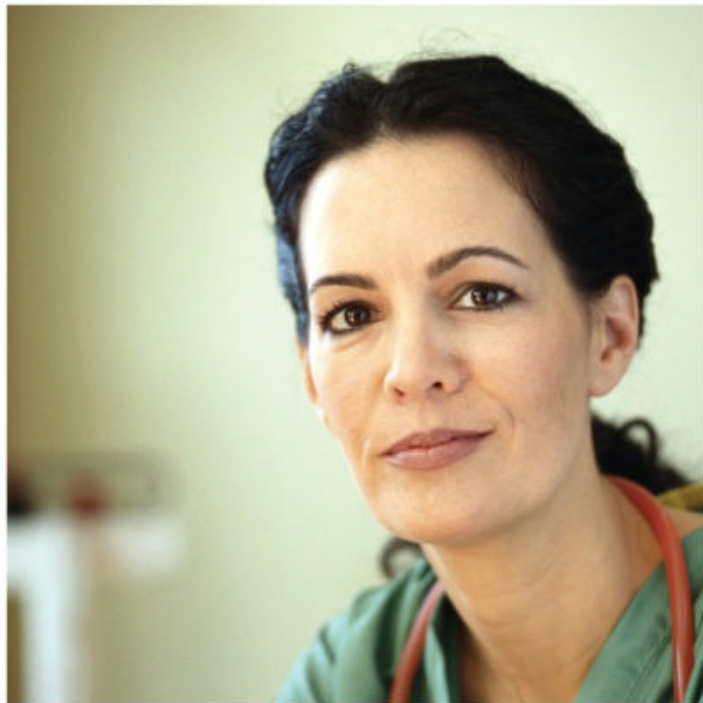
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**“Every time we’ve torn
something down, our
business has come back
stronger and better.”**

—RYAN SMITH, FOUNDER OF QUALTRICS



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Softening Capitalism's Downsides

THIS IS A challenging time to be an executive. For decades the CEO's primary responsibility has been to reward shareholders, even short-term ones. But as Joseph Bower and Lynn Paine pointed out in a 2017 HBR article, "The Error at the Heart of Corporate Leadership," that approach wasn't grounded in law or common sense. It was fashion.

Today's leaders tend to talk instead about serving a broad range of stakeholders, not just shareholders. Another fad? Perhaps. But it's an idea that has the potential to reorder capitalism and perhaps soften some of its downsides: obsessive short-term thinking, perverse income inequality, the destruction of the planet.

I recently had a chance to interview Ursula Burns, the former Xerox CEO, about this shift. Burns made history in 2009 when she became the first Black woman to head a *Fortune* 500 company. With the benefit of distance and perspective, she reflected on the pressures she faced as a CEO—including Xerox's bruising 2016 battle with an activist investor. "If the only goal is to maximize shareholder value, my daughter could run the company—could run any company," she said. "But that's not the only goal." Check out the full interview on page 132 or on the HBR IdeaCast podcast.



ADI IGNATIUS
Editor in chief



Check-In

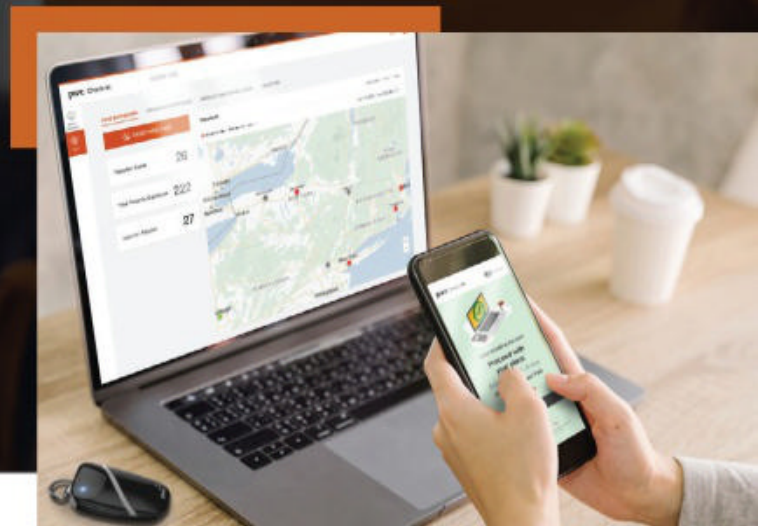
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Contributors



Born into a family of teachers, **Atalay Atasu** was always going to be an academic. An engineer by training, he was educated in Turkey, the United States, and France. While studying for a PhD in the early 2000s, he became interested in the circular economy—a concept recently made popular by Ellen MacArthur, who in 2005 broke the world record for fastest circumnavigation of the globe and in 2010 set up a foundation focused on the environment. In this issue Atasu, now a professor at INSEAD, and his coauthors seek to ground circularity in the day-to-day world of business operations.

72 The Circular Business Model



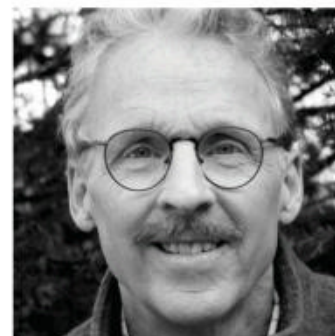
Eva Ascarza, an associate professor of marketing at Harvard Business School, describes herself as an “empirical modeler”—someone who uses tools from statistics, economics, and machine learning to answer relevant marketing questions. In her research over the years she has recognized that not all marketers utilize new technologies well. “There’s a large discrepancy between what advanced machine-learning methods and AI can do and what many firms are actually getting from them,” she says. In this issue she and her coauthors suggest ways to optimize the power of AI tools.

48 Why You Aren’t Getting More from Your Marketing AI



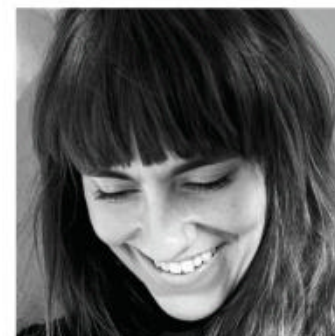
The veteran investor **Paresh Patel** recently put his money where his mouth is—in the world of plant-based nutrition. His work on *The Game Changers*, a documentary about the benefits of a vegan diet, opened his eyes to what he calls the “flexible morality” in “food-system injustices.” So in 2020 he cofounded a special purpose acquisition company, or SPAC, focused on businesses that “disrupt the food system and generate positive outcomes for human health, the environment, food security, and animal welfare.” In this issue Patel and his coauthor, Max Bazerman, discuss how SPACs work.

102 SPACs: What You Need to Know



“I’ve always considered myself an accidental writer,” says **Bill Birchard**, who is at work on his sixth book, about “secrets from science for aspiring writers.” A former biology major, he scoured scientific research, extracting eight principles that light up our brain’s motivation engine, the reward circuit. “In a lot of arts the science gets minimized,” he says. “People think that you sit down and your muse will speak to you.” Recognizing how good writing rewards readers can make the creative process easier; in his article in this issue Birchard offers a systematic approach to help writers do that.

139 The Science of Strong Business Writing



“I’m always looking for unexpected and pleasing color combinations that I encounter in real life,” says **Kelsey McClellan**, who took the photographs that appear in the article by David Michels and Kevin Murphy in this issue. They are from her series *If This Isn’t Nice*, which she captured in her San Francisco neighborhood using a medium-format digital camera and a handheld flash. “I feel like I live in heaven here in my neighborhood,” she says. “I want to share the small things that stop me in my tracks while walking by—kind of mundane treasures.”

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Introducing ATEM Mini Pro

The compact television studio that lets you create presentation videos and live streams!

Blackmagic Design is a leader in video for the television industry, and now you can create your own streaming videos with ATEM Mini. Simply connect HDMI cameras, computers or even microphones. Then push the buttons on the panel to switch video sources just like a professional broadcaster! You can even add titles, picture in picture overlays and mix audio! Then live stream to Zoom, Skype or YouTube!

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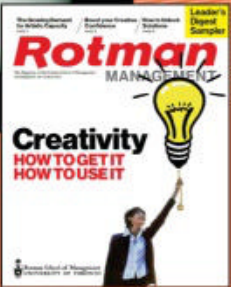
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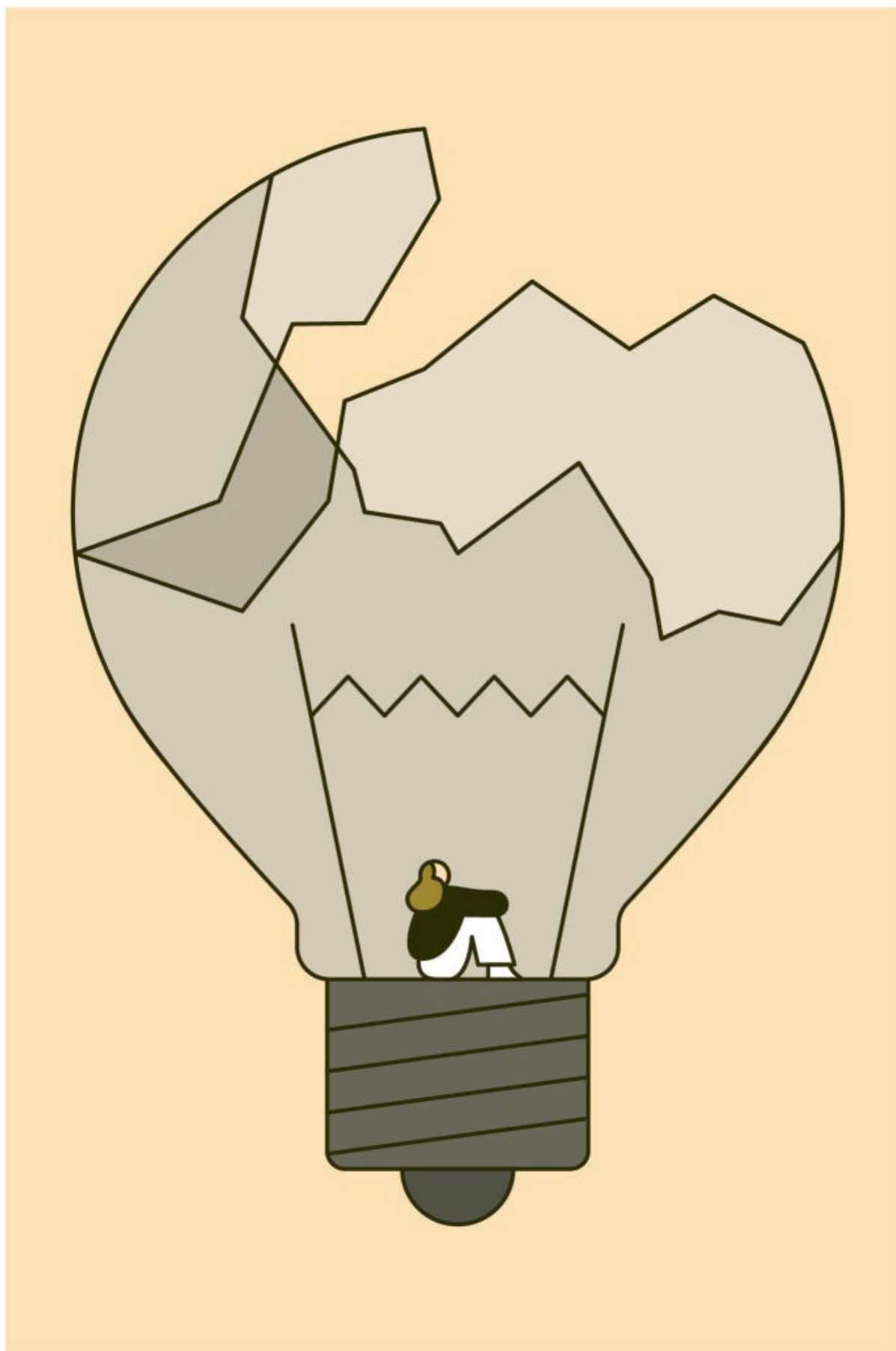
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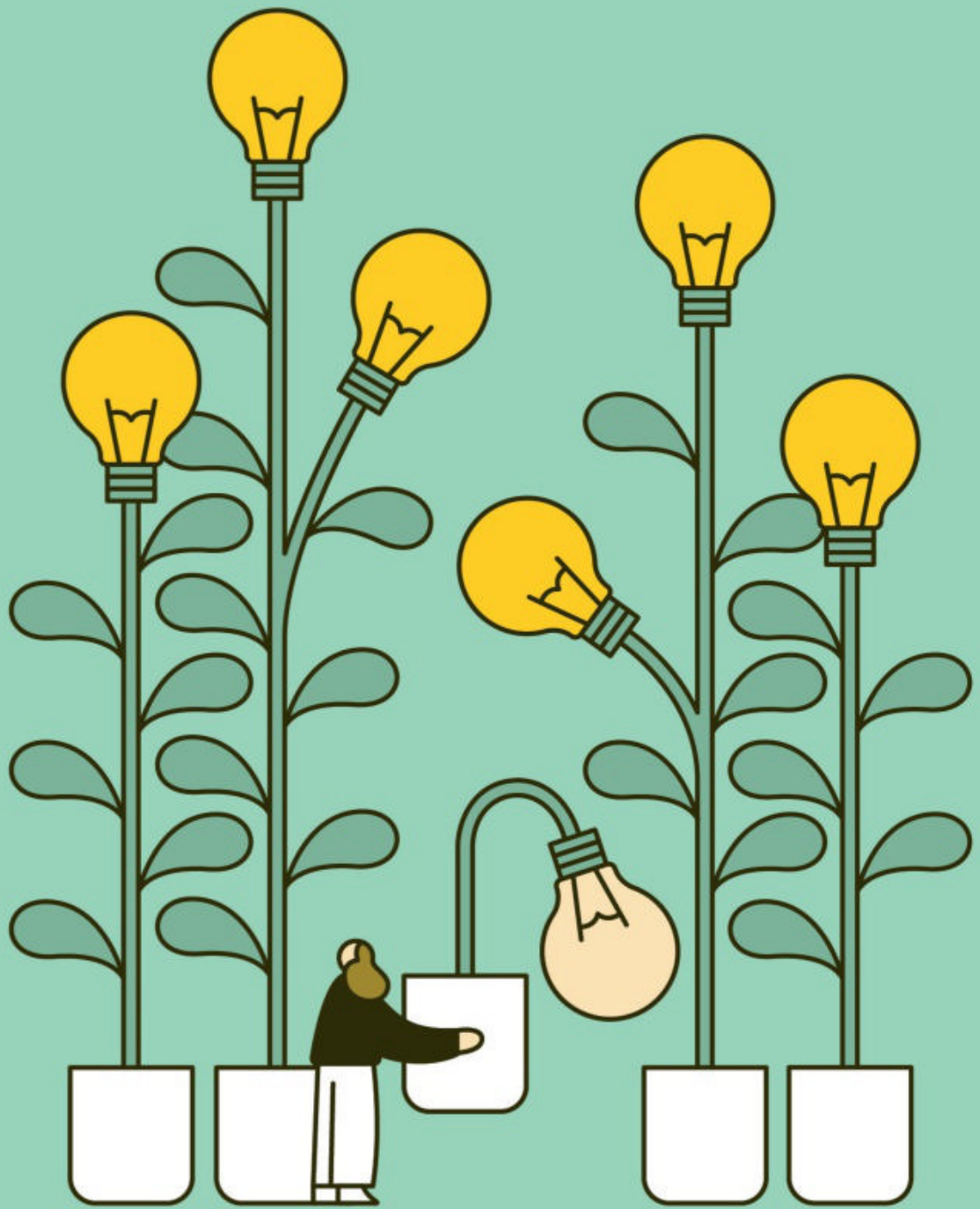
British government offered a cash prize to anyone who could devise a practical method of determining longitude at sea. In more recent times, open innovation contests have tackled challenges ranging from the silly (Frito-Lay's Crash the Super Bowl campaigns invited consumers to shoot a funny Doritos commercial) to the substantial (the NFL and Duke University have offered up to \$2 million for football helmet designs that better prevent brain injuries). Such contests are designed to get the competitive juices flowing, and for that reason participants can often view others' submissions while working on their own. But new research shows that if not managed carefully, that same competitive element can kill creativity.



IdeaWatch

Across two real-world studies and three lab experiments, participants who were shown lots of competing ideas or primed to think about competition before beginning a creativity task performed worse than others. In one of the studies, conducted on the open innovation platform HYVE Crowd, 540 participants were tasked with generating ideas for pillows and retail marketing campaigns. They were shown varying numbers of sample ideas, presented as if they were submissions from other contestants (among them: “hair dryer pillows” to prevent people from sleeping with wet hair and “headphone pillows” to let people listen to music while falling asleep). Contestants in one group saw 10 ideas; the others saw just two. Experts judged the submissions according to their originality and usefulness. The participants who saw two ideas earned scores that were 4.4% higher, on average, than the scores of those who saw 10. That might seem like a small effect, but even a minor improvement can make a substantial difference in a large innovation investment, the researchers say.

In the lab experiments, the researchers asked participants to come up with creative everyday uses for bricks—as doorstops or to measure right angles, say—and showed participants differing numbers of competing submissions. Independent coders scored the results. Here, too, the more ideas people saw, the lower the creativity of their own submissions, with the drop-off especially dramatic when 50 ideas were displayed. A follow-up study found that the performance of expert innovators deteriorated even more than that of



novices. When participants were told that the ideas displayed were simply examples, however, and not actual submissions, they suffered no decrease in performance.

“We looked at the number of ideas generated, at their innovativeness, and at other dimensions of creativity—and all were worse when competition was thrown into the mix,” says Reto Hofstetter, a marketing professor at the University of Lucerne, who led the research. “The competition at the heart of contests seems to undermine performance.” This surprised Hofstetter and his team. It runs counter to the

well-established “recombinant growth theory” of creativity, which holds that seeing others’ ideas stimulates innovation because people can build on pieces of others’ work or put them together in new ways. For example, drugs such as insulin and penicillin improved over the years as innovators created new and better technologies to produce them.

Several factors may explain why a heightened sense of competition can override the recombinant effect. First, intense competition can increase participants’ stress, which often impedes cognitive performance. Second,



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thinking about others who are vying for a prize diminishes participants' belief that they can win it themselves, diluting their incentive. Third and most significant, contestants tend to view competitors' submissions not as a source of inspiration but as a constraint on their own thinking. "The creative process requires disinhibition and a free-flowing stream of ideas," Hofstetter says. "Seeing other contestants' ideas jams up this process because people focus on differentiating their ideas from preceding ones rather than on using elements from them."

Companies can take several steps to avoid these pitfalls and raise the overall level of creativity that their innovation contests produce, the researchers say. They can:

Limit the visible competition. Across all the studies, displaying only a few submissions rather than showing all of them kept participants highly motivated and reduced their sense of constraint.

Show only the most original submissions. Paradoxically, the study participants were less constrained after seeing highly creative entries than after seeing more-mundane ones. Extremely original ideas are less likely to overlap with one another, the researchers say, so competitors exposed to them are less prone to feel that their own thoughts have already been explored.

Group entries together. The competitive aspect can be further tempered by grouping submissions thematically rather than presenting them one by one (the common default). When 100 submissions were divided into five buckets, for instance, participants

didn't suffer much loss of creativity, because they perceived just five constraints, not 100. This tactic, along with the advice to show only the most original ideas, would add to a contest's costs, the researchers acknowledge; sorting entries by quality and category is highly labor-intensive. But they predict that advances in machine learning, computer vision, and natural language processing could soon make it easy for computers to do that work.

Gloss over the odds. Contest organizers can tone down the competitive nature of the language they use. Phrases such as "only the best idea wins" and "you compete against others" were particularly damaging to creativity among the contestants studied.

Downplay submitters' identities. Finally, an unpublished study by the researchers showed that drawing attention to other entrants by displaying their usernames or avatars alongside their submissions increased contestants' anxiety—so organizers would be wise to omit such details, the researchers say.

"Contests can be an effective way of generating fresh ideas," Hofstetter concludes. "But our research shows that, counterintuitively, companies should turn down the competitive element if they want to generate the best results.." © **HBR Reprint F2104A**

 **ABOUT THE RESEARCH** "Constraining Ideas: How Seeing Ideas of Others Harms Creativity in Open Innovation," by Reto Hofstetter, Darren W. Dahl, Suleiman Aryobsei, and Andreas Herrmann (Journal of Marketing Research, 2021)

IN PRACTICE

"If the First Entries You Show Are Poor, You'll Probably Get Lots of Poor Entries"

As CEO of the innovation consultancy HYVE, **Johann Füller** initiated the HYVE Crowd platform and has overseen more than 200 open innovation contests for corporate clients. He recently spoke with HBR about what the firm has learned about how competition affects contestants. Edited excerpts follow.

Do you agree that competition can inhibit participants?

It's always a question: How much competition do you want in a given contest? You can set the tone a bit through the incentives you offer. For example, many contests have only one winner. But if you pay out just for first place, you may demotivate the other participants. If one entry is so good that people feel they can't compete, they have no motivation to engage. So we award prizes to the top solutions.

We often offer a smaller, “most valuable” prize to the participant who provides the most assists by asking challenging questions or making helpful comments on other people’s ideas.

How do you ensure an appropriate level of incentives?

If the prizes are very high, the level of competition may be extraordinarily intense—not necessarily what we’re looking for. At a certain point, you get diminishing returns, and if the monetary aspect is too dominant, it may decrease other sources of motivation. Our users don’t participate just to win prizes; they participate out of curiosity, to showcase their talent, or to interact with like-minded people. Of course, there is competition, but there is also collaboration. You need a balance. If you make the prizes too high, contestants will stop collaborating and may even try to cheat.

What is your rule of thumb for compensation?

The prize should be in line with what a firm would pay a high-end innovation consultant. For a “grand challenge”—say, designing a faster sports car—people might spend years on the solution, so the prize should be substantial. For most of the contests we run, coming up with an entry takes a day or two. So we offer a few thousand dollars for first prize—roughly what a consultant would charge for a few days’ work.

Do you limit the number of ideas participants can see?

Sometimes. And sometimes we don’t show any ideas, because

clients don’t want us to. But in my experience, if you don’t inspire some level of competition, people won’t be very motivated. The first couple of ideas that participants see are important in setting the stage. If the first entries you show are poor, you’ll probably get lots of poor entries. Ideally, people looking at the early submissions

will see that if they want to win, they’ll have to contribute at a high level.

What’s the biggest challenge in running these contests?

Companies should be prepared to receive a lot of zany ideas. This can lead to fatigue—they throw all the ideas into a drawer and forget

about them. I’ve seen things get overlooked only to be later adopted by someone else. We ran a contest in 2008 for a lighting company, and one of the participants suggested putting lights on pets. Crazy! Except now it’s common, especially for walking dogs at night. True innovation always seems outlandish at first. ©





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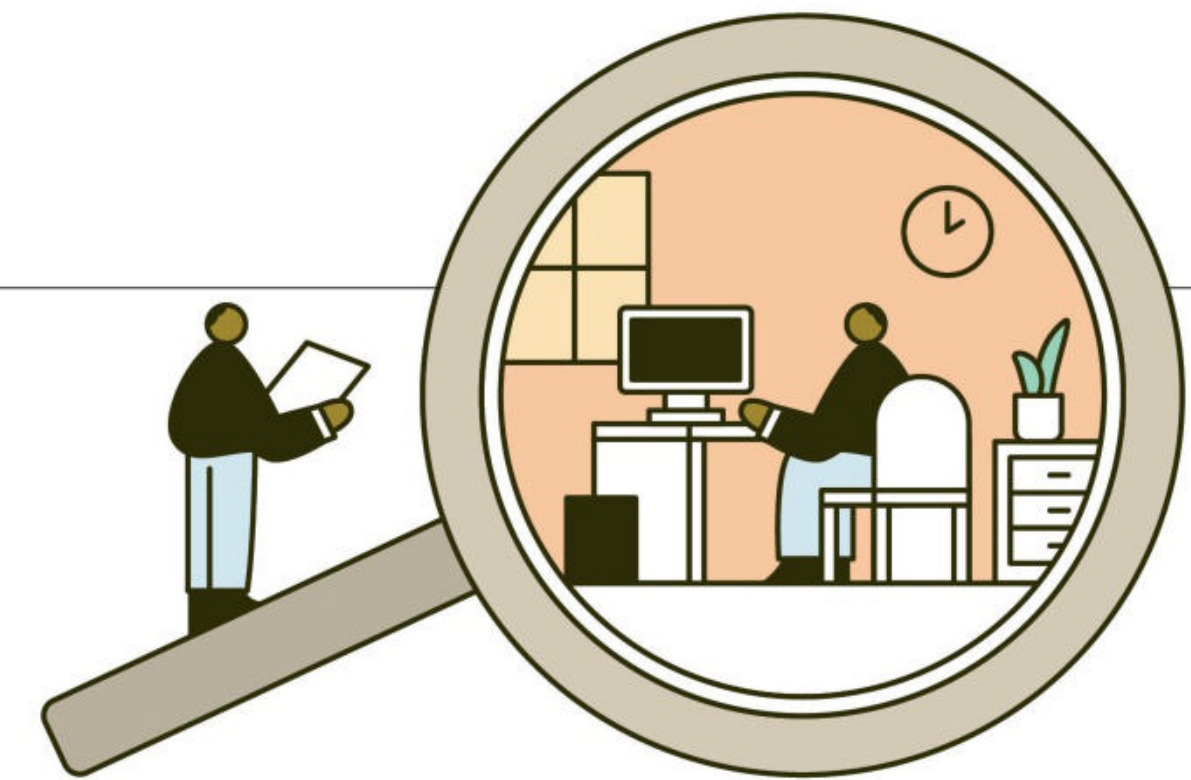
PERFORMANCE

A Brighter View of Employee Monitoring

Organizational psychologists have long held that monitoring workers saps their autonomy and reduces their effectiveness. Yet technology has intensified such surveillance in recent years:

Among other things, managers now track clinicians' handwashing, truck drivers' efficiency, and customer service reps' interactions, generally without ill effects. A new study suggests that the discrepancy between scholars' warnings and companies' experience can be explained by a previously unexamined factor: who has access to the data that's gathered. Under the traditional top-down approach, it was usually available only to supervisors; today many systems grant access to multiple parties, including employees themselves. Because this lets workers show their perspective if questioned about their actions, the researchers reasoned, it should reduce the power differential between observer and observed, mitigating the fallout from reduced autonomy.

To test their hypothesis, the researchers chose an arena in which monitoring is being rolled out on a large scale: law enforcement. In the first of three studies, they compared two groups of patrol officers. One was about to be issued body cameras; the control group was scheduled to get them at a much later date. Surveys conducted before and after the cameras were deployed showed that the officers wearing cameras experienced a drop in autonomy—but they perceived that their relationship with the public



(their potential observers) had become less polarized. Members of the control group reported neither diminished levels of autonomy nor improved relations with the public.

Two subsequent field studies showed that as perceived polarization dropped, the impact of decreased autonomy on job effectiveness (as assessed by independent experts) dropped as well. "Whereas it is sometimes assumed that employees merely get used to monitoring, we offer an alternative explanation: they may be having simultaneous positive and negative reactions, which 'cancel out' its effects," the researchers write. Leaders could benefit from giving employees access to monitoring data and from sharing stories of how other workers have used it, they add, concluding that "these smaller fixes may go a long way toward countering the reduction in employee autonomy that may be inevitable with monitoring devices."



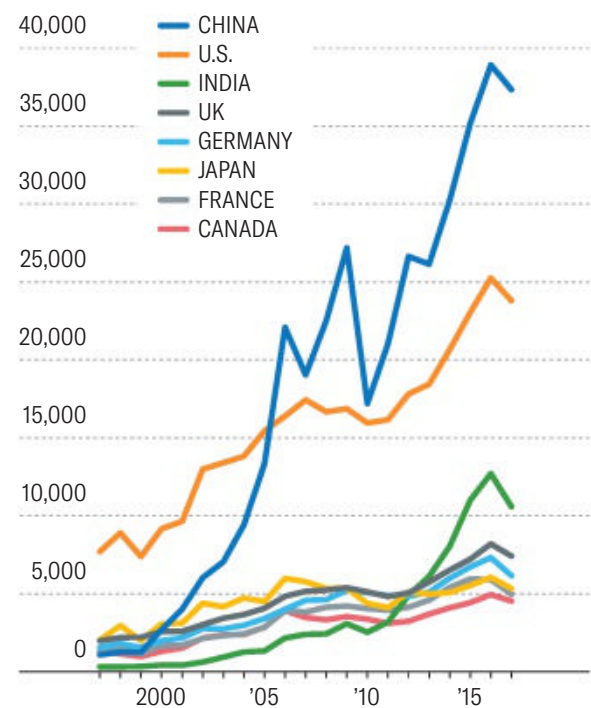
ABOUT THE RESEARCH "Uncovering the Mitigating Psychological Response to Monitoring Technologies: Police Body Cameras Not Only Constrain but Also Depolarize," by Shefali V. Patil and Ethan S. Bernstein (Organization Science, forthcoming)

GLOBAL BUSINESS

Can China Build a Lasting Lead in AI?

China has surpassed the United States in papers published on artificial intelligence, and it consistently files more AI patents. But the very conditions that fostered this growth, including the open-science nature of AI and a lax regulatory environment, could prevent China from taking a meaningful lead in AI-related businesses, researchers say.

Number of academic papers published on AI



Source: China AI Development Report 2018, China Institute for Science and Technology Policy at Tsinghua University (data); analysis by Daitian Li, Tony W. Tong, and Yangao Xiao



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REAPING THE RETURNS ON #METOO

Male and female mutual fund managers performed similarly before the Harvey Weinstein scandal broke—but in the subsequent year and a half, female fund managers outperformed their male counterparts by more than three percentage points, presumably boosted by the reduced threat of harassment. “#MeToo Meets the Mutual Fund Industry: Productivity Effects of Sexual Harassment,” by Gjergji Cici et al.

REMOTE WORK

How “Virtual Watercoolers” Can Help New Hires

With many firms planning for hybrid and remote-only workforces even after the pandemic subsides, one issue they are likely to face is the dearth of spontaneous interactions—the conversations and camaraderie that can spring up among colleagues who bump into one another at the office. Of particular concern is the effect on new employees, who often rely on such exchanges to help them learn their roles, understand the organization’s culture, and gain mentorship and support. A new study finds an intervention that can help.

The researchers conducted a field experiment with a large global organization that pivoted its summer internship program to a fully virtual format in 2020. The firm’s new interns were randomly divided into five groups. Members of two groups were given chances to participate in real-time “virtual watercoolers”: 30-minute informal interactions with three or four other interns, conducted either with a senior manager (who was not their direct supervisor) or on their own. The other three groups served as controls. The first participated in 30-minute Q&A exchanges with other interns and senior managers, conducted asynchronously rather than in real time; the second spent the 30 minutes working on group projects with fellow interns; the third had unstructured time. Surveys and analyses at summer’s end showed that the interns who joined watercooler sessions involving senior managers felt

more positive about the internship than the members of the other groups did. They got higher weekly performance ratings from their supervisors and were likelier to be offered full-time employment at the firm; for example, they were five percentage points more likely to get a job offer from it than were interns who engaged in the asynchronous Q&As. The benefits were more pronounced when the interns and the senior managers were demographically similar.

The virtual watercoolers that included senior managers most likely “facilitated information sharing and advice...that enabled the interns to improve their job performance and career outcomes,” the researchers write, adding that “interns may have been more likely to identify with a demographically similar senior manager as a role model, resulting in higher career outcomes.” Organizations could apply the findings not just to future intern

programs, they say, but when onboarding newcomers of any sort.

 **ABOUT THE RESEARCH** “Virtual Watercoolers: A Field Experiment on Virtual Synchronous Interactions and Performance of Remote Interns,” by Prithwiraj (Raj) Choudhury, Iavor Bojinov, and Jacqueline Lane (working paper)

CROWDFUNDING

Family, Hold Back

Crowdfunding experts often urge entrepreneurs to solicit support from family and friends in the early days of a campaign. This seed money builds momentum and attracts support from strangers—or so the thinking goes. But according to a new study, it frequently has the opposite effect.

The research team analyzed data from 902 crowdfunding campaigns



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conducted on the Chinese platform DemoHour, looking in particular at the individual contributions made on the first day and in the first week of each campaign. Because people could sign into the platform through their social media accounts, the team was able to identify any online relationships between entrepreneurs and funders. Its analysis showed that people with online connections to the entrepreneurs contributed more and earlier than strangers did—but campaigns whose early contributions were mostly in small amounts (below the campaign average) raised more money overall, attracted more funders, and were more likely to meet their funding goals than campaigns with mostly large early contributions.

Subsequent experiments in China, Israel, and the United States confirmed those results and showed that they were driven by relationship inferences made by prospective funders. When early

contributions were mainly large ones, potential contributors rightly assumed that they came from the entrepreneurs’ family and friends and were therefore not valid predictors of the project’s quality and likelihood of success. When participants were encouraged to revise their assumptions about the reasons for such contributions (for example, by being told that big donors earned rewards), the donations no longer worked against projects’ success. “Entrepreneurs should refrain from asking for large-amount contributions from a small number of acquaintances,” the researchers write. “Soliciting a large number of small contributions...may be a more effective means of building early momentum.”

 **ABOUT THE RESEARCH** “*The Small Predicts Large Effect in Crowdfunding,*” by Tingting Fan, Leilei Gao, and Yael Steinhart (Journal of Consumer Research, 2020)

Large donations from family and friends can backfire.



TALENT

Should You Rehire an Employee Who Left?

Boomerang employees are more predictable than other hires and may contribute more quickly—but a 2019 analysis of more than 30,000 U.S. workers over eight years finds that although they are solid employees, they underperform external hires and internal promotions after their first year on the job.



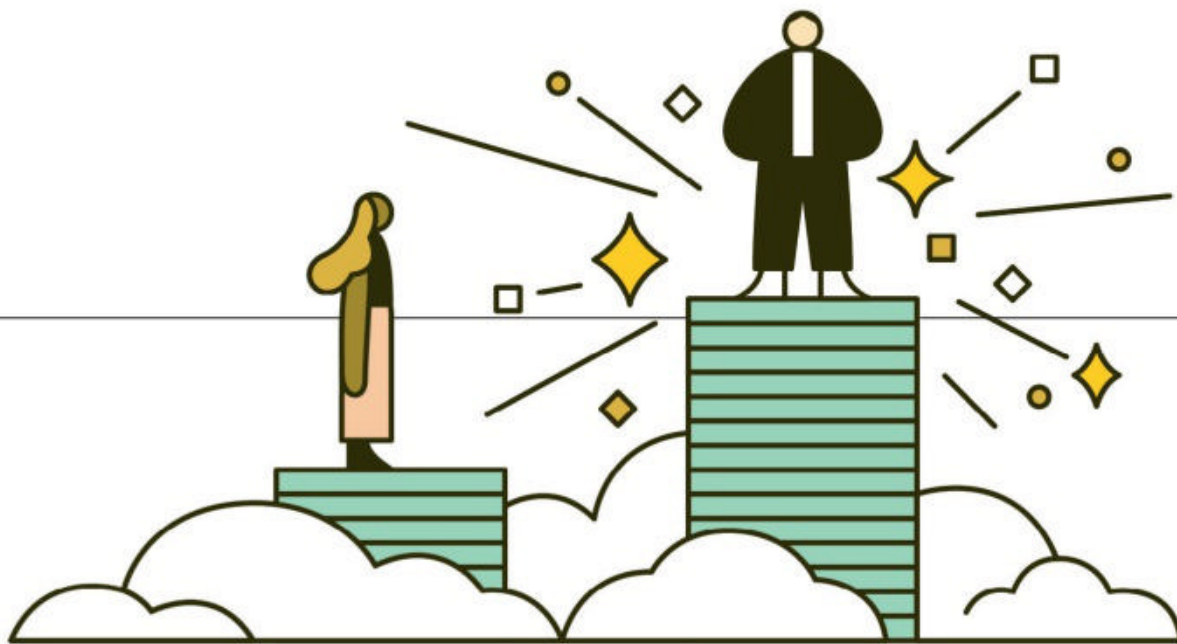
Source: John D. Arnold, Chad H. Van Iddekinge, Michael C. Campion, Talya N. Bauer, and Michael A. Campion

GENDER

Two Paychecks Under God

Management scholars studying gender differences in compensation typically focus on organizational barriers to equal pay. New research looks at a broader influence: religiosity, or the importance of religion.

In their first study, the researchers gathered data from the Human Development Survey on men’s and women’s compensation in 140 countries along with the results of Gallup surveys on religion. In countries where 95% or more of respondents said that religion was an important part of daily life (Pakistan and the Philippines, for example), women earned 46% as much as men. In countries where less than 20% found religion important (Denmark, Estonia, Sweden), women earned 75% as much as men. The second study homed in on the United



States. Across the five most-religious states (Mississippi, Utah, Alabama, Louisiana, and Arkansas), the gender wage gap was 26%; in the five least-religious ones (all in New England), it was just 18%. It narrowed across the board from 2009 to 2018 but changed much faster in less-religious states. “The wage gap in secular states will take approximately 28 years to close,” the researchers write, “while the gap in religious states will take approximately 109 years.”

The third study—a pair of experiments—found a potential remedy. In the first experiment, participants played the role of a manager allocating wages to two employees after reading their performance reviews. The employees received identical ratings and feedback; one was male, and one was female. The managers also read about their fictitious company’s core values, which were either heavily religious or nonreligious. Managers given the religiously inflected value statement awarded the male employee 3% more than his female counterpart, on average, while managers given the secular values statement awarded the woman 6% more than they gave the man. In the second experiment, all participants read the religiously weighted values statement. One group then read a company statement suggesting equitable division of domestic responsibilities, a second group read a statement prohibiting

sexual harassment, a third group read a statement encouraging all employees to pursue leadership opportunities, and a control group read a values-neutral statement. Members of the control group recommended 8% higher wages for the male employee than for the female, but members of the three other groups assigned wages equally. “Espousing egalitarian values...can buffer the effect of religiosity on the gender wage gap,” the researchers write.

ABOUT THE RESEARCH “*The Hidden Cost of Prayer: Religiosity and the Gender Wage Gap*,” by Traci Sitzmann and Elizabeth M. Campbell (Academy of Management Journal, forthcoming)

JUDGMENTS

Anger Doesn’t Actually Signify Guilt

When assessing charges of wrongdoing in the workplace, it can be hard to know whether claims of innocence should be believed, so managers often rely on indirect clues. A new study finds that one common clue—whether the accused reacts angrily—reliably predicts guilt, but not in the way most people expect.

In the first of several experiments, participants viewed clips from the

television show *Judge Faith* and rated the degree to which the accused seemed angry and the likelihood that he or she was guilty. Results showed that participants’ perceptions of anger went hand in hand with their perceptions of guilt. Knowing that someone is angry triggers an impression that he or she is uncooperative and deceitful, the researchers say.

In the next experiment, participants read about a robbery suspect who pled not guilty and was described, in various scenarios, as displaying anger, irritation, or calmness or declining to answer. Participants were more likely to think him guilty when they read a scenario in which he reacted angrily versus irritably or calmly, and they were most likely to think him guilty in versions where he remained silent—suggesting that refusing to respond to a false accusation in order to avoid appearing angry can backfire. Subsequent lab experiments involving fraud investigators, auditors, and other professionals who routinely assess workplace violations found similar results.

In the final experiments, participants wrote about a time when they were accused of a misdeed, either falsely or justifiably, and reported their accompanying emotions. People felt and displayed more anger when they had been falsely accused, regardless of whether the matter was trivial or consequential. “Perceivers are not accurate lie detectors,” the researchers write. “Not only [is] anger...an invalid cue of guilt, it is a valid cue of innocence.”

ABOUT THE RESEARCH “*Anger Damns the Innocent*,” by Katherine DeCelles et al. (Psychological Science, forthcoming)



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POLITICAL BIAS

Divided We Hire

With political polarization rising, and with recruiters increasingly checking out job applicants’ social media profiles, a research team wondered: Do people’s political affiliations affect their odds of being hired? Judging from the resulting studies, the answer is a resounding yes.

In the first study, participants evaluated a mock Facebook page belonging to an American man seeking work. The page contained explicit signals of his party identification (a donkey or an elephant, for example) along with information establishing him as either well or poorly qualified. The participants viewed one of four possible candidate types chosen at random: qualified Democrat, unqualified Democrat, qualified Republican, and unqualified Republican. They then reported their own political affiliation, how similar they considered themselves to be to the applicant, how much they liked him, and how well they thought he would do the job. Participants whose politics matched the applicant’s were more likely than others to see themselves as similar to the applicant, to report liking him, and to rate him as capable of doing the job.

The second study was identical to the first except that the signals of party affiliation were subtler (pictures of pro-choice or pro-life signs, posts about Black Lives Matter or Blue Lives Matter, and images suggesting support for gun control or for the NRA). The pattern of results was the same, and the stronger the participant’s own identification with a political party, the stronger the effect.

THE COST OF KEEPING UP WITH TECHNOLOGY

Employees in one department of the U.S. government spent an average of one week every two years learning new software applications—at an annual cost of \$13 billion. “Research: When New IT Systems Shift the Burden onto Employees,” by Michael A. Campion and Emily D. Campion

In both studies, the applicant’s qualifications for the job held little sway relative to political matching or divergence.

“Organizations [could] train raters/recruiters and organizational managers to avoid making hiring decisions on such job-irrelevant (some might consider it discriminatory) information [or] dissuade [them] from reviewing social media websites at all,” the researchers write. They add that job applicants—and even employees seeking

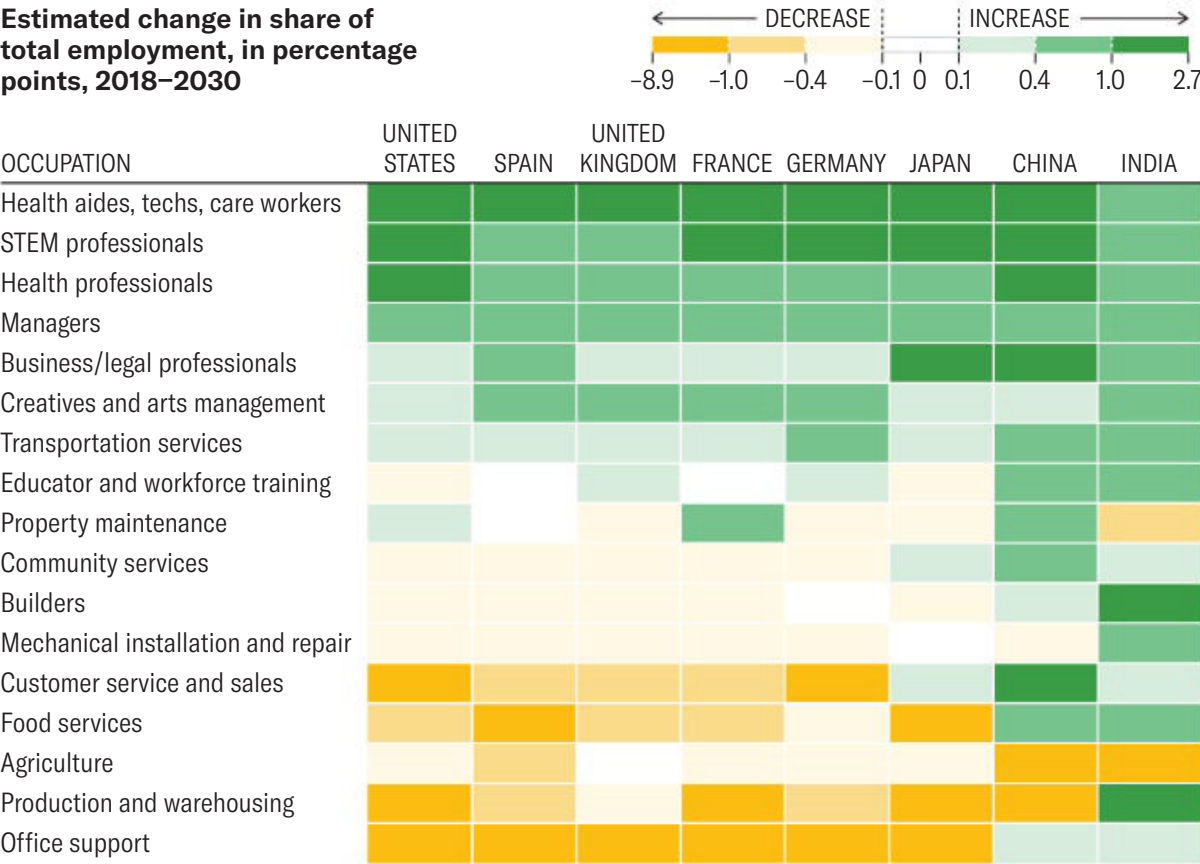
promotion—should weigh the possible benefits of revealing their party affiliation online (a post about heading a college political organization could signal leadership experience, for example) against the risk that it will harm their chances.

ABOUT THE RESEARCH “Political Affiliation and Employment Screening Decisions: The Role of Similarity and Identification Processes,” by Philip L. Roth et al. (Journal of Applied Psychology, 2020)

LABOR MARKETS

The Post-Pandemic Future of Work

Covid-19 has heightened employment trends that were already underway. The chart below shows a projection of labor demand in the coming decade based on national employment statistics and taking into account accelerated automation, e-commerce, and remote work; decreased business travel; gains from anticipated GDP and income growth; and aging populations and other demographic shifts.



Source: “The Future of Work After Covid-19,” by McKinsey Global Institute



**Harvard
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David Zhu of Arizona State University and two coresearchers used Social Security Administration data to assess the frequency of given names in the United States and then mapped the results against the first names of the CEOs of 1,172 public firms and financial data on those companies over a 19-year span. Their analysis showed that the more uncommon a CEO's name was, the more the organization's strategy deviated from industry norms. The conclusion:

CEOs with Unusual Names Pursue Unusual Strategies



Professor Zhu, DEFEND YOUR RESEARCH

ZHU: Studies in psychology show that people with uncommon names are identified early on as being different from their peers. And because we develop our self-conception largely in relation to others, children viewed as outsiders in that way will internalize those perceptions and see themselves as different from other kids. That sticks with them into adulthood, and it seems that those

who become CEOs often express their distinctiveness in the strategic choices they make.

HBR: But people with unusual names are often teased or bullied as kids. Surely that would make them want to conform, not stand out. In the short term, yes—having an unusual name can spark negative reactions that harm someone's

self-image. In time, though, many people overcome those challenges and rebuild their self-esteem. Not everybody develops the confidence to exhibit their differences, of course. But CEOs are generally very self-assured individuals, so they might be more likely to try to stand out than other people with uncommon names.

How did you measure strategic distinctiveness? We looked at six ways in which companies allocate resources: advertising intensity, inventory level, purchases of new plant and equipment, R&D intensity, nonproduction overhead, and financial leverage. All have a strong effect on a firm's performance, and all are likely to be under the CEO's control. For each dimension we calculated the absolute difference between what a given firm allocated and the average allocation of all other firms in the same industry in each year. We standardized those scores and added them up to arrive at a composite measure of strategic distinctiveness. If a CEO's resource allocations across those dimensions are very different from the industry averages, the company is doing something pretty unique.

How much did the unusually named CEOs' strategies vary from those of their peers? It depended on the oddity of the name. Comparing chief executives with slightly uncommon and slightly common names—an Eric versus a Mike, say—we found that the strategies of the former were about 4% more distinctive, on average, than those of the latter. As the names got more unusual—as you looked at an Elon, for example—the gap widened.



If a board wants a new leader to shake things up, appointing someone with an uncommon name will probably help.

Did the distinctive strategies pan out?

We didn't investigate that, but it's an interesting question. A leader pursuing a unique strategy needs to overcome a lot of challenges, including questions about whether that strategy is legitimate. Overall, existing research shows that departing too much from peers' strategies can be harmful, as can pursuing a strategy that is too similar. You want your strategy to be moderately different.

Couldn't other factors encourage a leader to march to a different drum? If people had unusual backgrounds or career paths, they might also tend to make unconventional choices, no?

We controlled for numerous factors, including education, work experience, gender, firm size and performance, and characteristics of the board. Even after taking those things into account, we got the same results. We also controlled for ethnicity and country of birth, both of which could influence name uncommonness in the United States without necessarily making people think they are different from their peers. The effect was still present, but we did find some evidence that it was weaker among CEOs born elsewhere.

Were there any other factors that heightened or diminished this uncommon CEO name effect? Three things had an influence. First, CEO confidence. We measured that by looking at how leaders exercised their stock options, because prior research indicates that a CEO who retains more exercisable options is more confident about the future of the company than a CEO who cashes in. The effect of an uncommon name on strategic distinctiveness was 48% stronger

when confidence levels changed from one standard deviation below the mean to one standard deviation above it. CEOs with low levels of confidence often chose to conform to industry norms—essentially hiding how unique they believed themselves to be.

The second influencing factor was the context in which executives were operating. When an industry is prospering, there are more opportunities to pursue differentiated strategies; you can thrive in many ways. When it's declining, there's a high risk that an unusual strategy will fail, so the CEO's actions are constrained. By tracking year-to-year industry sales, we calculated each industry's capacity for growth. Uncommon names had 95% more influence on strategic distinctiveness in industries whose capacity for growth was one standard deviation above the mean than in industries where it was one standard deviation below the mean.

But the biggest moderating factor was the CEOs' power—whether chief executives also served as board chair, how long they had been in office relative to their directors, how much company stock they held, and so on. The more power an uncommonly named CEO had, we reasoned, the greater the likelihood of pushing an unusual strategy through. The change in effect between the standard deviations from the mean here was a whopping 144%.

What does all this mean for how corporate boards handle CEO appointments? Should they be thinking about candidates' first names? That could be an effective tool in selecting the type of leader that's desired. If a board wants a

new leader to shake things up, appointing someone with an uncommon name will probably help. The directors won't have to provide a lot of incentives; that executive will naturally want to chart a unique course. Conversely, if a company's strategy has strayed too far from the industry average, appointing a James or a Jennifer could help.

Boards should also pay attention to other managers' names as they're grooming the next generation of leaders. If they anticipate that the company will need some major changes in the next 10 years, giving people with unconventional names more development opportunities could be a smart move.

What about employees? Should I worry that my editor in chief is named Adi? We studied only CEOs. But leaders with uncommon names who want to demonstrate their uniqueness can affect all types of stakeholders. There could be bigger rewards if their strategies succeed—and bigger losses if they fail. So there's apt to be more uncertainty. At the same time, uncommonly named CEOs might be more receptive to creative ideas from employees and to product and process improvements. In a supplementary analysis, we found that their firms engaged in more innovation activities than others did.

Competitors should also think about these findings. If the head of a rival firm has a distinctive name, he or she is more likely to make a move you haven't seen before. That leader might inject a lot of surprise into the competitive environment—and a lot of new energy, too. ☺

Interview by **Amy Meeker**
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How We Did It

The Founder of Qualtrics on Reinventing an Already Successful Business

by Ryan Smith



IdeaWatch

ONE OF THE hardest disciplines in business and in life is tearing down what you've built to build something better—and knowing when to do it, especially if everything is going well. At Qualtrics, the company my father, brother, a friend, and I founded in 2002, we've reinvented our business multiple times. At first we did it out of necessity. But we soon learned that it's much easier to change from a position of strength than when your hand is forced by the market or your competition. No major bet or pivot was successful in less than three or four years, so we learned to change when times were good. Still, sometimes you have no choice but to rebuild in the middle of a crisis.

Qualtrics started as a single-product survey company used primarily by academics to conduct research. It was an unconventional business model for a start-up—serving a small market with demanding customers who didn't have a lot of money. No venture capitalist would want to bet on that market. But by the early 2010s we had evolved into a multiproduct company helping organizations manage customer experience, employee insights, and market research. In 2017 we launched the experience management (XM) category and created the first platform on which organizations



Each pivot along the way required us to rebuild our tech stack, replace previous code, adjust our talent strategy, and realign the company.

could oversee the four core experiences of business: customer, employee, product, and brand. That led to our acquisition by SAP for \$8 billion in January 2019 and an IPO two years later in which the opening price valued Qualtrics at three times that amount.

Each pivot along the way required us to rebuild our tech stack, replace previous code, adjust our talent strategy, and realign the company, and each entailed large costs and risks. But we recognized that if we were going to fundamentally shape the market we were in, we had to reinvent ourselves and create a more robust platform. Our motivation has always come from the quest to reach our highest potential as a company rather than continue with what's already working. We have always looked at our market, products, and people and asked, How can we continue to improve and better serve our customers?

In the end, it's not change but complacency that kills a business.

A NEW WAY TO GATHER DATA

Qualtrics was born in our family basement in Provo, Utah. In the early 2000s my father, Scott, was a marketing professor at Brigham Young University. During a consulting project for BellSouth, he came upon the idea of using the internet to accelerate market research, thereby disintermediating expensive market-research firms. Not long after, he was diagnosed with throat cancer (now, thankfully, in remission). During the course of his treatments, we began building a software company. I was a junior at BYU's Marriott School of Business, but I saw the potential of our

project and dropped out to be with my dad and work on it.

We always believed that the future of Qualtrics lay in helping large organizations, but at first it was hard to get those customers to embrace a new way of doing things. We were ahead of our time in measuring customer sentiment online. I remember one rejection from an airline executive in 2005: "If our customers are upset," he said, "they'll just call us." That was basically the way the world thought about customer experience. Companies that were interested in hearing from customers were happy to pay consultants and traditional research firms huge amounts of money, even though it took months to get results. They lived by the mantra "If it ain't broke, don't fix it."

That mentality led us to focus initially on a smaller market: academics like my father, who could use our product to conduct research online. We figured that if he was enthusiastic about our software, others would be too. Although we first approached CTOs and CIOs at universities, and they loved the product, they weren't willing to sign up on behalf of their schools. We had to come up with a new model. So we went directly to marketing professors at business schools, who had almost no budget. We would get one or two on board, and they would get the entire marketing department signed up.

That was definitely a hard way to do it, but the ripple effect, from the marketing department to the rest of the business school, ultimately came after that. Then the social science and psychology departments would join in. We'd go back to the same CTO or CIO

two or three years later, and this time the entire university would sign up.

One benefit of this strategy was that it forced us to make our software robust yet flexible. Academics weren't paying us enough that we could afford to provide telephone support, so if the technology didn't work for everyone out of the box, we wouldn't make it as a company. That meant we had to build our technology in a way that could meet each professor's unique demands. Our tagline in those early days was "Sophisticated enough for a PhD, but easy enough for an intern." It defined our user experience from the start.

Another benefit was that we created future corporate customers: Students took their software preferences with them to internships and, after graduation, to their full-time jobs. One MBA who went to work for Heineken over the summer used Qualtrics for a field study project. The company wanted to keep using Qualtrics after he returned to school, so it bought a \$60,000 license from us. Another student, from the University of Washington, did a project at Expedia, prompting the travel company to sign on as well.

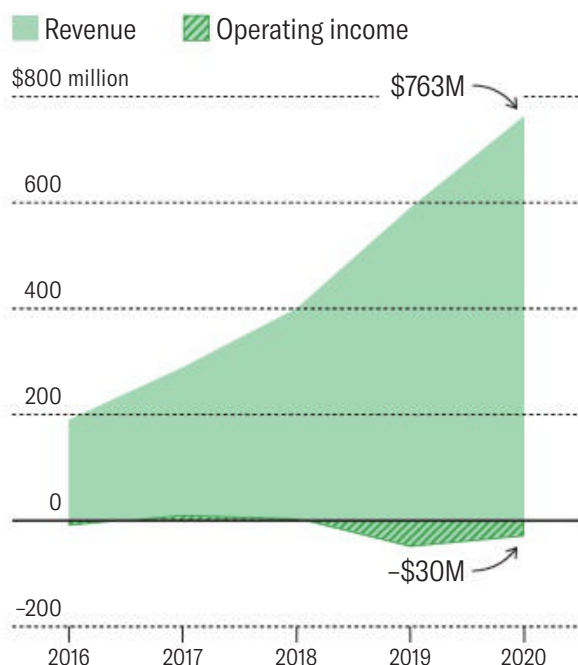
Then the 2008–2009 financial crisis hit. We were based in Utah, far from Wall Street, but we still felt vulnerable. We had 40 employees, no venture money or outside capital, and an academic user base. We needed to proactively change before the crisis changed us. We sensed an opening with the enterprise market. The recession put intense cost pressure on every organization we were talking to, which was good news for us because we were faster and less expensive than traditional consulting and market



FACTS & FINANCIALS

Qualtrics

Founded: 2002
Headquarters: Provo, Utah
No. of employees: 3,800



Source: Qualtrics

research firms at a time when companies had to be right and needed to make decisions quickly. Ironically, during the downturn the number of our corporate clients began to skyrocket. That's when we saw the data revolution beginning. Data had become currency, and being right became a premium.

But even as our corporate revenue started outgrowing our academic revenue, most of our deals were still closing at the grassroots level. As our customer base increasingly shifted, we had some decisions to make. We were growing and profitable, but we were a family-run business with a basement headquarters, and most of our users were PhDs with no money. It would have been very easy

to continue running a lifestyle business with a focus only on the academic market, but that wouldn't have allowed us to reach our full potential. We knew we had to tear down what we had built to create something better.

A LEAP INTO ENTERPRISE

At Qualtrics we have always tried to look at big decisions through the lens of one-way and two-way doors—something we learned from other great tech companies. Some decisions can be reversed; for others there is no going back. A simple example for entrepreneurs: The distribution of equity is a one-way door, because once you've given it, you can't take it back. Introducing different pricing models is a two-way door—although it's a big decision, you can always iterate and change over time. Start-ups often suffer from “alarm fatigue”—every single business decision is treated as essential and irreversible. Or they run through every door as fast as they can because they think growth is all that matters. So how should you approach things? Train your organization to run as fast as it can through two-way doors, but everyone should stop and think carefully before passing through a one-way door.

By 2012 we knew we were facing a huge one-way-door decision. We had more than 4,700 paying customers, including 600 universities and half of the *Fortune* 500. The corporate segment was impressive, but we knew we could do more. We received an all-cash \$500 million acquisition offer from a private buyer—the first time in our 10 years that someone wanted to buy us. It validated what we were doing to disrupt the

market, and it was also enough money for my dad, my brother, my friend, and me to sail off into the sunset. It was a tough decision, but we turned it down after asking ourselves a lot of questions, including What sort of company do we want to be? and What would have to be true for us to not regret passing on this offer? The answers to those questions would become our future road map.

That's when we knew it was time to walk through a one-way door. It would make sense not to sell only if we were going to go even bigger—and that would mean changing what we were doing even though it was working well. We loved the academic market (and it loved us), but we knew that long-term growth would require us to expand our focus and realign our strategy around enterprise clients—and we weren't configured for that yet. I had been working directly with the enterprise clients we did have, and I could clearly see the value we were creating. They were willing to coinvest with us to design the right solutions. That pointed to a massive expansion in our potential market, and we believed the time was right to go after it. But it would be a bet-the-business decision because of the capital investment we'd need to make in the product and the go-to-market strategy. The founders would have to sign up for a painful, long-term personal learning process as we worked to develop skill sets we lacked. We would have to break a lot of the rules—such as no remote workers—that had gotten us to where we were.

We moved resources from our thriving academic business and made a commitment to transition from a single-product to a multiproduct company,



IdeaWatch

Ryan Smith at Qualtrics headquarters, in Provo, Utah.

developing technology to help companies measure customer experience. We also built an employee-insights business for HR professionals. In making this decision, once again, we had to rebuild our technology stack, replace code, and realign a portion of our 300-person workforce with this new direction.

PARTNERING WITH VCS

We were confident in this decision, and others in the years following, because we've always been close to our customers. I'm both a cofounder and the first salesperson. All our senior leaders, no matter their function, join sales meetings with prospects and clients. Some founders no doubt believe they can intuit what will be a hit without any meaningful contact with customers, but I'm guessing they are few. I gather insights from the front lines. I sit with our prospects and customers and listen to their needs and get a sense of what good feels like to them so that we can develop something they haven't imagined yet.

Another reason we were able to take the risk of becoming a multiproduct, enterprise-focused company was our commitment to earning buy-in from our internal team. Of course we always make room for dissent and healthy disagreement when we pause at the threshold of a one-way door. When brothers are running things together, dissent is a given. But once a decision is made, we ask everyone to be "all in." Often that means abandoning old ways of doing things and treasured projects that have consumed hours of employees' time over the years. I've always said that if it feels uncomfortable, it's probably right.



The same year we declined the \$500 million offer, we tapped Silicon Valley for the first time for our Series A funding. That was a huge departure for us. Until then we had bootstrapped the company with no outside money. We were profitable and prided ourselves on being scrappy outsiders who didn't adhere to the tech industry's norms. But now we needed partners who had seen this movie before and could help us scale up past the \$1 billion threshold.

Frankly, we needed to grow up. My brother, who left us in the early years to join Google, had returned in 2009, and we had lots of other A-level talent. But we hadn't yet built an executive team with experience selling to large enterprises or managing a company as it approached unicorn status. So we went out and found people who were smarter and

more seasoned than we were. In the end we partnered with two leading VC firms—Accel and Sequoia. We knew they were committed: Accel, an early investor in Facebook, sent me 17 unsolicited emails before I even engaged with the firm, and Sequoia had a partner who had worked closely with my brother at Google. He knew us and our business intimately.

I certainly had concerns about this part of our strategy shift. I remember waking up in a cold sweat the night before my first meeting with Sequoia's Mike Moritz. I thought that as a condition of the investment, he would make me move the company—and my family—from Utah to California. But he didn't. He asked if we wanted to do something great, because he believed we could. And he said he believed we could do it from Utah. No one place has an exclusive



I'm confident about our ability to keep adapting to dynamic markets and customer needs. After some 20 years of pivots, we know how to reinvent ourselves.

on smart people. Moritz knew what we knew—that Utah has many of the same advantages the Bay Area does and then some. For example, we live where people come to vacation, and that offers a tremendous quality of life that top talent has come to appreciate. This was in 2012, and since then “Silicon Slopes” (as the cluster of high-growth companies in and around Provo, Utah, is now known) has blossomed into one of the best tech hubs in the United States.

With customer, employee, and investor support lined up, it was full steam ahead. We transitioned from a single-product market research company primarily serving academia to a multi-product company serving enterprises with customer-experience, employee-insights, and market research products. We crossed the threshold, and there was no looking back.

LAUNCHING THE XM CATEGORY

The next major one-way-door decision came in early 2017. Our business could not have been doing better. I gathered all our senior leaders in a conference room at our headquarters, which we'd named NORAD (after the U.S. military's early-warning command center), and asked them to speak now or forever hold their peace. On the table was a transition away from multiple products to a single platform, where enterprise clients could manage customer, employee, product, and brand experience in one place. We were going to burn the boat on our previous products and launch the XM category. This was another bet-the-company move while our business was at an all-time high. It would require the same type

of reinvention we'd executed five years earlier. And again the risks were huge.

But we all agreed it was the right thing to do. Customers would benefit. Employees would buy in. And our investors were confident that we would figure it out. In fact, just a couple of months after we launched the XM Platform, they bet on us once again with a \$180 million Series C investment.

Less than two years later it was clear that we'd been right: Organizations had signed on with Qualtrics faster than ever before. Having proved the power of XM, we were gearing up for our fall IPO road show when we started conversations with SAP about working together. We had built a stable, high-growth company that had remained cash-flow positive since its inception. We had always been told you had to choose between cash-flow positivity and high growth, but we had always optimized our business model for both, and it was paying off. Our business looked like a distant cousin of its early self. That's when we arrived at the ultimate one-way door. Three days before we were scheduled to ring the bell on Wall Street, SAP made a compelling offer that we couldn't refuse. Our goal since launching the XM category had been to take it to the world as fast and as effectively as possible. Every organization needs it. When SAP offered us \$8 billion—the largest private enterprise-software acquisition in history—we accepted, because the opportunity to take XM to SAP's 437,000 customers would allow us to achieve that goal. SAP's bet and all our reinventions were rewarded when the company took Qualtrics public, in January 2021. (SAP retains the controlling stake in Qualtrics,

including all Class B shares that give it extra voting rights.)

On the day in 2019 that SAP acquired us, I sat in on an investor call with its then-CEO, Bill McDermott. One of the first questions was “How come I have never heard of Qualtrics?” I smiled inside. We've always bucked conventional wisdom, quietly focusing on building a long-term, profitable company that our customers value. We have continually transformed it to provide even greater value to more and more organizations with every pivot we've made. Even after our successful IPO, and nearly two decades into our journey, we all still feel as if we're just getting started.

I'm confident about our ability to keep adapting to dynamic markets and customer needs. After some 20 years of pivots, we know how to reinvent ourselves. But as I write this, Qualtrics (and every other organization across the globe) is facing a whole new world—and not one of our choosing. Covid-19 has disrupted traditional ways of doing business, causing upheaval in workforces and everywhere else. We have created new products and services that help employers, governments, and educators around the world monitor and act in the best interests of their employees, constituents, health care workers, and students.

We have to be light on our feet. We're leveraging the muscles and gears we've built through years of practice to ensure that everyone can adjust and adapt quickly. The good news is that reinventing ourselves is what we do best. Every time we've torn something down, our business has come back stronger and better. ☺

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GREETINGS FROM THE EDGE

Where insight meets opportunity. A place where the difference between success and failure isn't measured in time – it's measured in real time. A place where you can't always wait for data to reach the cloud – you need the cloud to come to your data. And your software to adapt to you. All connected by a single force. Quickly. Securely. And cost-effectively. So that you can make the most of the Age of Insight. And stay agile enough, flexible enough, and confident enough to not only keep up, but to stay ahead of whatever's out there. Because any company can be at the center of innovation. Only the truly insightful ones live at the edge of it.



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“Given the technology’s enormous potential, it’s crucial for CMOs to understand the types of marketing AI applications available today and how they may evolve.”

“How to Design an AI Marketing Strategy”

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Enterprise

Greetings from

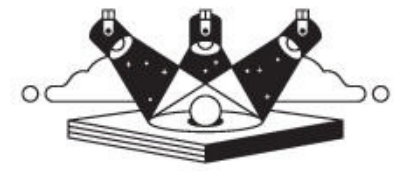
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Spotlight

AI-Powered Marketing



How to Design an AI Marketing Strategy

What the technology can do today—and what's next



OF ALL A company's functions, marketing has perhaps the most to gain from artificial intelligence. Marketing's core activities are understanding customer needs, matching them to products and services, and persuading people to buy—capabilities that AI can dramatically enhance. No wonder a 2018 McKinsey analysis of more than 400 advanced use cases showed that marketing was the domain where AI would contribute the greatest value.

Chief marketing officers are increasingly embracing the technology: An August 2019 survey by the American Marketing Association revealed that

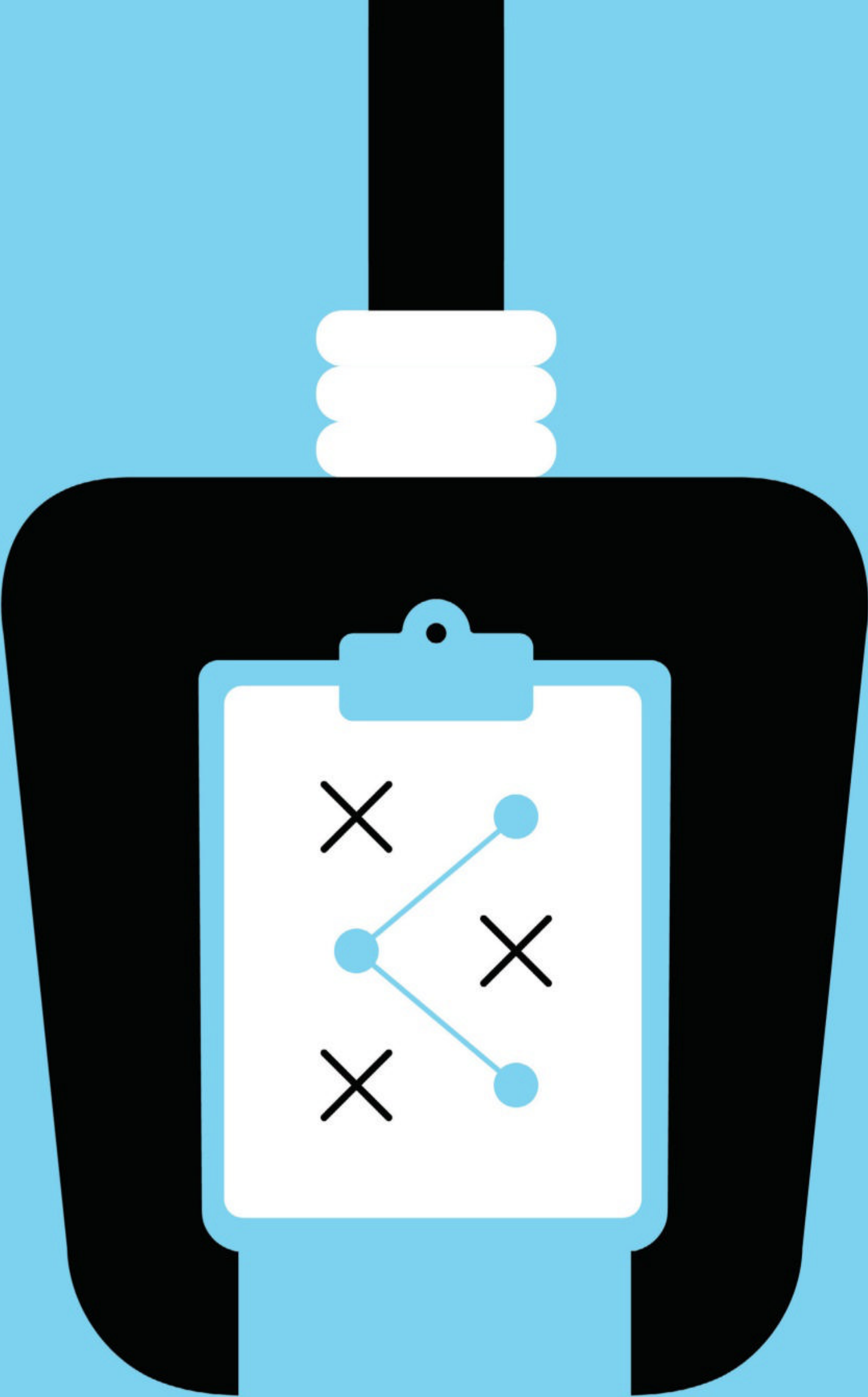
implementation of AI had jumped 27% in the previous year and a half. And a 2020 Deloitte global survey of early AI adopters showed that three of the top five AI objectives were marketing-oriented: enhancing existing products and services, creating new products and services, and enhancing relationships with customers.

While AI has made inroads in marketing, we expect it to take on larger and larger roles across the function in the coming years. Given the technology's enormous potential, it's crucial for CMOs to understand the types of marketing AI applications available today and how

they may evolve. Drawing on more than a decade of experience studying data analytics, AI, and marketing and advising companies across industries about them, we've developed a framework that can help CMOs classify existing AI projects and plan the rollout of future ones. But before we describe the framework, let's look at the current state of play.

Today's AI

Many firms now use AI to handle narrow tasks, such as digital ad placement (also known as “programmatic buying”); assist with broad tasks, like





enhancing the accuracy of predictions (think sales forecasts); and augment human efforts in structured tasks, such as customer service. (See the sidebar “Well-Established AI Applications in Marketing” for a list of some common activities AI can support.)

Firms also employ AI at every stage of the customer journey. When potential customers are in the “consideration” phase and researching a product, AI will target ads at them and can help guide their search. We see this happening at the online furniture retailer Wayfair, which uses AI to determine which customers are most likely to be persuadable and, on the basis of their browsing histories, choose products to show them. And AI-enabled bots from companies such as Vee24 can help marketers understand customers’ needs, increase their engagement in a search, nudge them in a desired direction (say, to a specific web page), and if needed, connect them to a human sales agent by chat, phone, video, or even “cobrowsing”—allowing an agent to help the customer navigate a shared screen.

AI can streamline the sales process by using extremely detailed data on

individuals, including real-time geolocation data, to create highly personalized product or service offers. Later in the journey, AI assists in upselling and cross-selling and can reduce the likelihood that customers will abandon their digital shopping carts. For example, after a customer fills a cart, AI bots can provide a motivating testimonial to help close the sale—such as “Great purchase! James from Vermont bought the same mattress.” Such initiatives can increase conversion rates fivefold or more.

After the sale, AI-enabled service agents from firms like Amelia (formerly IPsoft) and Interactions are available 24/7 to triage customers’ requests—and are able to deal with fluctuating volumes of service requests better than human agents are. They can handle simple queries about, say, delivery time or scheduling an appointment and can escalate more-complex issues to a human agent. In some cases AI assists human reps by analyzing customers’ tone and suggesting differential responses, coaching agents about how best to satisfy customers’ needs, or suggesting intervention by a supervisor.

The Framework

Marketing AI can be categorized according to two dimensions: intelligence level and whether it’s stand-alone or part of a broader platform. Some technologies, such as chatbots or recommendation engines, can fall into any of the categories; it’s how they’re implemented within a specific application that determines their classification.

Let’s look at the two types of intelligence first.

Task automation. These applications perform repetitive, structured tasks that require relatively low levels of intelligence. They’re designed to follow a set of rules or execute a predetermined sequence of operations based on a given input, but they can’t handle complex problems such as nuanced customer requests. An example would be a system that automatically sends a welcome email to each new customer. Simpler chatbots, such as those available through Facebook Messenger and other social media providers, also fall into this category. They can provide some help to customers during basic interactions, taking customers down a defined

IDEA IN BRIEF

THE CHALLENGE

At many firms, the marketing function is rapidly embracing artificial intelligence. But in order to fully realize the technology’s enormous potential, chief marketing officers must understand the various types of applications—and how they might evolve.

THE FRAMEWORK

Classifying AI by its intelligence level (whether it is simple task automation or uses advanced machine learning) and structure (whether it is a stand-alone application or is integrated into larger platforms) can help firms plan which technologies to pursue and when.

IMPLEMENTATION

Companies should take a stepped approach, starting with rule-based, stand-alone applications that help employees make better decisions, and over time deploying more-sophisticated and integrated AI systems in customer-facing situations.



Machine-learning models can recognize images, decipher text, segment customers, and anticipate how customers will respond to various initiatives, such as promotions.

decision tree, but they can't discern customers' intent, offer customized responses, or learn from interactions over time.

Machine learning. These algorithms are trained using large quantities of data to make relatively complex predictions and decisions. Such models can recognize images, decipher text, segment customers, and anticipate how customers will respond to various initiatives, such as promotions. Machine learning already drives programmatic buying in online advertising, e-commerce recommendation engines, and sales propensity models in customer relationship management (CRM) systems. It and its more sophisticated variant, deep learning, are the hottest technologies in AI and are rapidly becoming powerful tools in marketing. That said, it's important to clarify that existing machine-learning applications still just perform narrow tasks and need to be trained using voluminous amounts of data.

Now let's consider stand-alone versus integrated AI.

Stand-alone applications. These are best understood as clearly demarcated, or isolated, AI programs. They're separate from the primary channels through which customers learn about, buy, or get support for using a company's offerings, or the channels employees use to market, sell, or service those offerings. Put simply, customers or employees have to make a special trip beyond those channels to use the AI.

Consider the color-discovery app created by Behr, the paint company. Using IBM Watson's natural language processing and Tone Analyzer capabilities (which detect emotions in text), the

application delivers several personalized Behr paint-color recommendations that are based on the mood consumers desire for their space. Customers use the app to short-list two or three colors for the room they intend to paint. The actual sale of paint is then executed outside the app, although it does allow a connection to order from Home Depot.

Integrated applications. Embedded within existing systems, these AI applications are often less visible than stand-alone ones to the customers, marketers, and salespeople who use them. For example, machine learning that makes split-second decisions about which digital ads to offer users is built into platforms that handle the entire process of buying and placing ads. Netflix's integrated machine learning has offered customers video recommendations for more than a decade; its selections simply appear in the menu of offerings viewers see when they go to the site. If the recommendation engine were stand-alone, they would need to go to a dedicated app and request suggestions.

Makers of CRM systems increasingly build machine-learning capabilities into their products. At Salesforce, the Sales Cloud Einstein suite has several capabilities, including an AI-based lead-scoring system that automatically ranks B2B customer leads by the likelihood of purchase. Vendors like Cogito, which sells AI that coaches call center salespeople, also integrate their applications with Salesforce's CRM system.

Combining the two types of intelligence and two types of structure yields the four quadrants of our framework: stand-alone machine-learning apps,

Well-Established AI Applications in Marketing

- Chatbots for lead development, customer support, and cross-selling or upselling
- Inbound call analysis and routing, and customer comment and email analysis, classification, and response
- Marketing campaign automation (including emails, landing page generation, and customer segmentation)
- Marketing mix analysis
- Online product merchandising
- Pricing
- Product or service recommendations and highly personalized offers
- Programmatic digital ad buying
- Sales lead scoring
- Social-media planning, buying, and execution
- Social-media sentiment analysis
- Television ad placement (partial)
- Web analytics narrative generation
- Website operation and optimization (including testing)

integrated machine-learning apps, stand-alone task-automation apps, and integrated task-automation apps. (For more, see the exhibit "The Four Kinds of Marketing AI.")

Understanding which quadrant applications fall into can help marketers plan and sequence the introduction of new uses.

A Stepped Approach

We believe that marketers will ultimately see the greatest value by pursuing integrated machine-learning applications, though simple rule-based and task-automation systems can enhance highly structured processes and offer reasonable potential for commercial returns. Note, however, that nowadays task automation is increasingly combined with machine learning—to extract key data from messages, make more-complex decisions, and personalize communications—a hybrid that straddles quadrants.

Stand-alone applications continue to have their place where integration is difficult or impossible, though there are limits to their benefits. Therefore,

we advise marketers to move over time toward integrating AI within current marketing systems rather than continue with stand-alone applications. And indeed, many companies are heading in that overall direction; in the 2020 Deloitte survey, 74% of global AI executives agreed that “AI will be integrated into all enterprise applications within three years.”

Getting Started

For firms with limited AI experience, a good way to begin is by building or buying simple rule-based applications. Many firms pursue a “crawl-walk-run” approach, starting with a stand-alone non-customer-facing task-automation app, such as one that guides human

service agents who engage with customers.

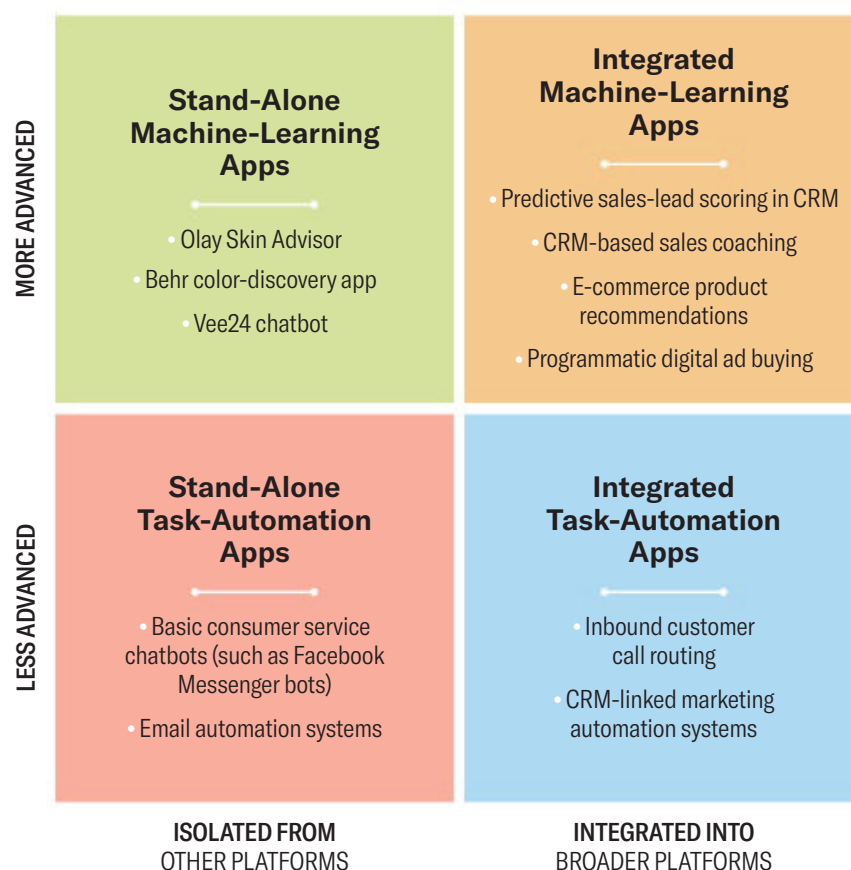
Once companies acquire basic AI skills and an abundance of customer and market data, they can start moving from task automation to machine learning. A good example of the latter is Stitch Fix’s clothing-selection AI, which helps its stylists curate offers for customers and is based on their self-reported style preferences, the items they keep and return, and their feedback. These models became even more effective when the company began to ask customers to choose among Style Shuffle photos, creating a valuable source of new data.

New sources of data—such as internal transactions, outside suppliers, and even potential acquisitions—are something marketers should look for constantly, since most AI applications, particularly machine learning, require vast amounts of high-quality data. Consider the machine-learning-based pricing model that the charter jet firm XO used to increase its EBITDA by 5%: The key was to tap external sources for data on the supply of private jets and on factors that affect demand, such as major events, the macroeconomy, seasonal activity, and the weather. The data XO uses is publicly available, but it’s a good idea to also seek proprietary sources whenever possible, because models using public data can be copied by competitors.

As companies become more sophisticated in their use of marketing AI, many fully automate certain types of decisions, taking humans out of the loop entirely. With repetitive, high-speed decisions, such as those required for programmatic ad buying (where digital ads

The Four Kinds of Marketing AI

Categorizing potential applications according to their intelligence level and structure can help companies plan the rollout of their marketing AI. Simple stand-alone apps are a good place to begin because they’re easier to set up, but their benefits are limited. Once companies acquire AI skills and amass data, they can add apps that are more advanced and are part of other platforms, working their way up to integrated machine learning, which has the potential to create the most value.





Firms should move to more-automated decisions whenever possible. This is where the greatest returns from marketing AI will be found.

are served up almost instantaneously to users), this approach is essential. In other domains AI may only present recommendations to a person faced with a choice—for example, suggesting a movie to a consumer or a strategy to a marketing executive. Human decision-making is typically reserved for the most consequential questions, such as whether to continue a campaign or to approve an expensive TV ad.

Firms should move to more-automated decisions whenever possible. We believe this is where the greatest returns from marketing AI will be found.

Challenges and Risks

Implementing even the simplest AI applications can present difficulties. Stand-alone task-automation AI, despite its lower technical sophistication, can still be hard to configure for specific workflows and requires companies to acquire suitable AI skills. Bringing any kind of AI into a workflow demands careful integration of human and machine tasks so that the AI augments people's skills and isn't deployed in ways that create problems. For instance, while many organizations use rule-based chatbots to automate customer service, less-capable bots can irritate customers. It may be better to have such bots assist human agents or advisers rather than interact with customers.

As companies adopt more-sophisticated and integrated applications, other considerations arise. Incorporating AI into third-party platforms, in particular, can be tricky. A case in point is offered by Procter & Gamble's Olay Skin Advisor, which uses deep learning to analyze

selfies that customers have taken, assess their age and skin type, and recommend appropriate products. It is integrated into an e-commerce and loyalty platform, Olay.com, and has improved conversion rates, bounce rates, and average basket sizes in some geographies. However, it has been harder to integrate it with retail stores and Amazon, third parties that account for a high percentage of Olay's sales. The Skin Advisor is not available on Olay's extensive store site on Amazon, hampering the brand's ability to deliver a seamless, AI-assisted customer experience there.

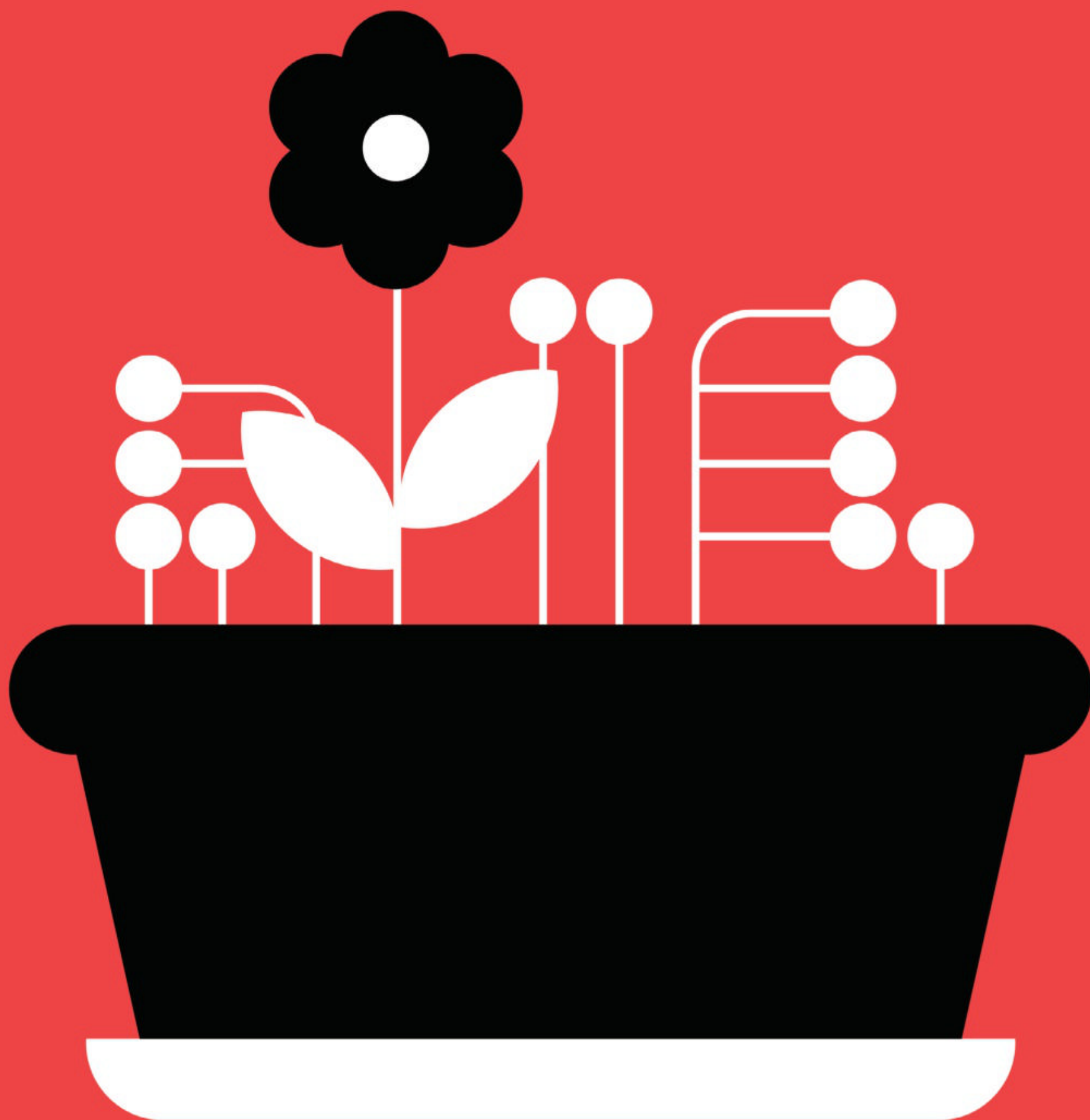
Finally, companies must keep customers' interests top of mind. The smarter and more integrated AI applications are, the more worries customers may have about privacy, security, and data ownership. Customers may be skittish about apps that capture and share location data without their knowledge or about smart speakers that may be eavesdropping on them. In general, consumers have shown a willingness (even eagerness) to swap some personal data and privacy in exchange for the value that innovative apps can provide. Concerns about AI applications like Alexa seem to be dwarfed by appreciation of their benefits. Thus the key for marketers as they expand the intelligence and reach of their AI is to ensure that its privacy and security controls are transparent, that customers have some say over how their data is collected and used, and that they get fair value from the firm in exchange. To guarantee those protections and maintain customers' trust, CMOs should establish ethics and privacy review boards—with both marketing and legal experts—to vet AI

projects, particularly those that involve customer data or algorithms that may be prone to bias, such as credit scoring.

WHILE MARKETING AI holds enormous promise, we urge CMOs to be realistic about its current capabilities. Despite the hype, AI can still accomplish only narrow tasks, not run an entire marketing function or process. Nevertheless, it's already offering substantial benefits to marketers—and in fact is essential in some marketing activities—and its capabilities are rapidly growing. We believe that AI will ultimately transform marketing, but it's a journey that will take decades. The marketing function and the organizations that support it, IT in particular, will need to pay long-term attention to building AI capabilities and addressing any potential risks. We urge marketers to start developing a strategy today to take advantage of AI's current functionality and its likely future. 

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Why You Aren't Getting More from Your Marketing AI

Chances are, you haven't asked the right questions.



WHEN A LARGE telecom company's marketers set out to reduce customer churn, they decided to use artificial intelligence to determine which customers were most likely to defect. Armed with the AI's predictions, they bombarded the at-risk customers with promotions enticing them to stay. Yet many left despite the retention campaign. Why? The managers had made a fundamental error: They had asked the

algorithm the wrong question. While the AI's predictions were good, they didn't address the real problem the managers were trying to solve.

That kind of scenario is all too common among companies using AI to inform business decisions. In a 2019 survey of 2,500 executives conducted by *Sloan Management Review* and the Boston Consulting Group, 90% of respondents said that their companies

had invested in AI, but fewer than 40% of them had seen business gains from it in the previous three years.

In our academic, consulting, and nonexecutive director roles, we have studied and advised more than 50 companies, examining the main challenges they face as they seek to leverage AI in their marketing. This work has allowed us to identify and categorize the errors marketers most frequently make with AI and develop a framework for preventing them.

Let's look at the errors first.

ALIGNMENT

Failure to Ask the Right Question

The real concern of the managers at our telecom firm should not have been identifying potential defectors; it should have been figuring out how to use marketing dollars to reduce churn. Rather than asking the AI who was most likely to leave, they should have asked who could best be persuaded to stay—in other words, which customers considering jumping ship would be most likely to respond to a promotion. Just as politicians direct their efforts at swing voters, managers should target actions toward swing customers. By giving the AI the wrong objective, the telecom marketers squandered their money on swaths of customers who were going to defect anyway and *underinvested* in customers they should have doubled down on.

In a similar case, marketing managers at a gaming company wanted to encourage users to spend more money while they were playing its game. The



marketers asked the data science team to figure out what new features would most increase users' engagement. The team used algorithms to tease out the relationship between possible features and the amount of time customers spent playing, ultimately predicting that offering prizes and making the public ranking of users' positions more prominent would keep people in the game longer. The company made adjustments accordingly, but new revenues didn't follow. Why not? Because managers, again, had asked the AI the wrong question: how to increase players' engagement rather than how to increase their in-game spending. Because most users didn't spend money inside the game, the strategy fell flat.

At both companies, marketing managers failed to think carefully about the business problem being addressed and the prediction needed to inform the best decision. AI would have been extremely valuable *if* it had predicted which telecom customers would be most persuadable and which game features would increase players' spending.

ASYMMETRY

Failure to Recognize the Difference Between the Value of Being Right and the Costs of Being Wrong

AI's predictions should be as accurate as possible, shouldn't they? Not necessarily. A bad forecast can be extremely expensive in some cases but less so in others; likewise, superprecise forecasts create more value in some situations than in others. Marketers—and, even

more critically, the data science teams they rely on—often overlook this.

Consider the consumer goods company whose data scientists proudly announced that they'd increased the accuracy of a new sales-volume forecasting system, reducing the error rate from 25% to 17%. Unfortunately, in improving the system's overall accuracy, they increased its precision with low-margin products while reducing its accuracy with high-margin products. Because the cost of underestimating demand for the high-margin offerings substantially outweighed the value of correctly forecasting demand for the low-margin ones, profits fell when the company implemented the new, "more accurate" system.

It's important to recognize that AI's predictions can be wrong in different ways. In addition to over- or under-estimating results, they can give false positives (for instance, identifying customers who actually stay as probable defectors) or false negatives (identifying customers who subsequently leave as unlikely defectors). The marketer's job is to analyze the relative cost of these types of errors, which can be very different. But this issue is often ignored by, or not even communicated to, the data science teams that build prediction models, who then assume all errors are equally important, leading to expensive mistakes.

AGGREGATION

Failure to Leverage Granular Predictions

Firms generate torrents of customer and operational data, which standard AI tools

can use to make detailed, high-frequency predictions. But many marketers don't exploit that capability and keep operating according to their old decision-making models. Take the hotel chain whose managers meet weekly to adjust prices at the location level despite having AI that can update demand forecasts for different room types on an hourly basis. Their decision-making process remains a relic of an antiquated booking system.

Another major impediment is managers' failure to get the granularity and frequency of their decisions right. In addition to reviewing the pace of their decision-making, they should ask whether decisions based on aggregate-level predictions should draw on more finely tuned predictions. Consider a marketing team deciding how to allocate its ad dollars on keyword searches on Google and Amazon. The data science team's current AI can predict the lifetime value of customers acquired through those channels. However, the marketers might get a higher return on ad dollars by using more-granular predictions about customer lifetime value per keyword per channel.

Communication Breakdowns

In addition to constantly guarding against the types of errors we've described, marketing managers have to do a better job of communicating and collaborating with their data science teams—and being clear about the business problems they're seeking to solve. That isn't rocket science, but we often see marketing managers fall short on it.

Several things get in the way of productive collaboration. Some managers



When defining the problem, managers should get down to what we call the atomic level—the most granular level at which it’s possible to make a decision.



plunge into AI initiatives without fully understanding the technology’s capabilities and limitations. They may have unrealistic expectations and so pursue projects AI can’t deliver on, or they underestimate how much value AI *could* provide, so their projects lack ambition. Either situation can happen when senior managers are reluctant to reveal their lack of understanding of AI technologies.

Data science teams are also complicit in the communication breakdown. Often, data scientists gravitate toward

projects with familiar prediction requirements, whether or not they are what marketing needs. Without guidance from marketers about how to provide value, data teams will often remain in their comfort zone. And while marketing managers may be reluctant to ask questions (and reveal their ignorance), data scientists often struggle to explain to nontechnical managers what they can and can’t do.

We’ve developed a three-part framework that will help open lines of communication between the marketing and

data science teams. The framework, which we’ve applied at several companies, lets teams combine their respective expertise and create a feedback loop between AI predictions and the business decisions they’re meant to inform.

The Framework in Practice

To bring the framework to life, let’s return to the telecom company.

1 What is the marketing problem we are trying to solve? The answer to this question has to be meaningful and precise. For example, “How do we reduce churn?” is far too broad to be of any help to the developers of an AI system. “How can we best allocate our budget for retention promotions to reduce churn?” is better but still too vague. (Has the retention budget been set, or is that something we need to decide? What do we mean by “allocate”? Are we allocating across different retention campaigns?) Finally, we get to a clearer statement of the problem, such as: “Given a budget of \$x million, which customers should we target with a retention campaign?” (Yes, this question could be refined even further, but you get the point.) Note that “How do we predict churn?” doesn’t appear anywhere—churn prediction is not the marketing problem.

When defining the problem, managers should get down to what we call the *atomic* level—the most granular level at which it’s possible to make a decision or undertake an intervention. In this case the decision is whether or not to send each customer a retention promotion.

As part of the discovery process, it’s instructive to document exactly how decisions are made today. For example,

the telecom company uses AI to rank customers (in descending order) by their risk of churning in the next month. It targets customers by starting at the top of that ranking and moves down it until the budget allocated to the retention campaign runs out. While this step seems merely descriptive and doesn't reveal how the problem might be reframed, we have seen many cases where it is the first time the data science team actually gets to understand how its predictions are used.

It's important at this stage for the marketing team to be open to iterating to get to a well-defined problem, one that captures the full impact of the decision on the P&L, recognizes any trade-offs, and spells out what a meaningful improvement might look like. In our experience, senior executives usually have a good sense of the problem at hand but have not always precisely defined it or clearly articulated to the rest of the team how AI will help solve it.

2 Is there any waste or missed opportunity in our current approach?

Marketers often recognize that their campaigns are disappointments, but they fail to dig deeper. At other times managers are unsure about whether the results can be improved. They need to step back and identify the waste and missed opportunities in the way a decision is currently made.

For instance, most airlines and hotels track measures of *spill* and *spoil*: *Spill* measures empty seats or rooms (often the result of pricing too high), *spill* measures "lost trading days" on which flights or hotels filled too quickly (the result of pricing too low). *Spill* and *spoil*

are beautiful measures of missed opportunity because they tell a very different story from aggregated measures of occupancy and average spend. To make the most of their AI investments, marketing leaders need to identify their spill and spoil equivalents—not in the aggregate but at the atomic level.

The first step is to reflect on what constitutes success and failure. At the telecom firm, the knee-jerk definition of success was "Did the targeted customers renew their contracts?" But that's too simplistic and inaccurate; such customers might have renewed without receiving any promotion, which would make the promotion a waste of retention dollars. Similarly, is it a success when a customer who was not targeted by a promotion does defect? Not necessarily. If that customer was going to leave anyway, not targeting her was indeed a success, because she wasn't persuadable. However, if the customer would have stayed if she'd received the promotion, an opportunity was missed. So what would constitute success at the atomic level? Targeting only customers with high churn risk who were persuadable and not targeting those who were not.

Once the sources of waste and missed opportunities are identified, the next step is to quantify them with the help of data. This can be easy or very hard. If the data team can quickly determine what was a success or failure at the atomic level by looking at the data, great! The team can then look at the distribution of success versus failure to quantify waste and missed opportunities.

There are cases, however, where it is difficult to identify failures at the atomic

level. At the telecom firm, the data team wasn't examining which customers were persuadable, and that made it hard to classify failures. In such circumstances teams can quantify waste and missed opportunities using more-aggregated data, even if the results are less precise. One approach for the telecom firm would be to look at the cost of the promotion incentive relative to the incremental lifetime value of the customers who received it. Similarly, for the customers not contacted by the promotion, the team might look at the lost profit associated with the nonrenewal of their contracts.

Such tactics helped the telecom company identify customers who were being retained but at a cost greater than their incremental future value, high-value customers who had defected despite receiving retention promotions, and high-value customers who had not been targeted and left after the campaign. This quantification was possible because the data science team had a control group of customers—who had been left alone to set the baseline—to compare results against.

3 What is causing the waste and missed opportunities?

This question is usually the hardest, because it requires reexamining implicit assumptions about the firm's current approach. To find the answer the firm must explore its data and get its subject matter experts and data scientists to collaborate. The focus should be on solving the alignment, asymmetry, and aggregation problems we identified earlier.

→ **Addressing alignment.** The goal here is to map the connections between



Humans are, by and large, reluctant to change. Many managers haven't yet adjusted to the frequency and level of detail at which the new technology can make old decisions.

AI predictions, decisions, and business outcomes. That requires thinking about hypothetical scenarios. We recommend that teams answer the following questions:

In an ideal world, what knowledge would you have that would fully eliminate waste and missed opportunities? Is your current prediction a good proxy for that?

If the telecom team members had answered the first question, they would have realized that if their AI predicted perfectly who could be won over by the retention offer (rather than who was about to leave), they could eliminate both waste (because they wouldn't bother making offers to unpersuadable customers) and missed opportunities (because they'd reach every customer who was persuadable). While it is impossible to make perfect predictions in the real world, focusing on persuadability would still have led to great improvements.

After the ideal information is identified, the question becomes whether the data science team can make the required predictions with sufficient accuracy. It's crucial that the marketing and data science teams answer this together; marketers often don't know what can be done. Similarly, it is difficult for the data scientists to link their predictions to decisions if they don't have subject matter expertise.

Does the output of your AI fully align with the business objective?

Remember the gaming company that used AI to identify features that would increase user engagement? Imagine the gains if the company had created AI that predicted user profitability instead.

A common mistake here is falsely believing that a correlation between the prediction and the business objective is enough. This thinking is flawed because correlation is not causation, so you might predict changes in something that correlates with profitability but does not in fact improve it. And even when there is causation, it may not map 100% to the objective, so your effort may not fully achieve your final outcome, leading to missed opportunities.

At the telecom company, asking this third question might lead the team to think not only about persuadable users but also about the increase or decrease in their profitability. A persuadable user with low expected profitability should have a lower priority than a persuadable user with high expected profitability.

→ **Addressing asymmetry.** Once you have a clear map that links the AI prediction with the decision and the business outcome, you need to quantify the potential costs of errors in the system. That entails asking, How much are we deviating from the business results we want, given that the AI's output isn't completely accurate?

At the telecom company, the cost of sending a retention promotion to a nonpersuadable customer (waste) is lower than the cost of losing a high-value customer who could have been persuaded by the offer (missed opportunity). Therefore, the company will be more profitable if its AI system focuses on not missing persuadable customers, even if that increases the risk of falsely identifying some customers as being receptive to the retention offer.

The difference between waste and missed opportunity sometimes is

difficult to quantify. Nevertheless, even an approximation of the asymmetric cost is worth calculating. Otherwise, decisions may be made based on AI predictions that are accurate on some measures but inaccurate on outcomes with a disproportionate impact on the business objective.

→ **Addressing aggregation.** Most marketing AI doesn't make new decisions; it addresses old ones such as segmentation, targeting, and budget allocation. What's new is that decisions are based on richer amounts of information that are collected and processed by the AI. The risk here is that humans are, by and large, reluctant to change. Many managers haven't yet adjusted to the frequency and level of detail at which the new technology can make old decisions. But why should they keep making those decisions at the same pace? With the exact same constraints? As we saw earlier, this sometimes results in failure.

The way to solve this problem is by conducting two analyses. In the first, the team should examine how it could eliminate waste and missed opportunities through other marketing actions that might result from the predictions generated. The intervention that the team at the telecom firm considered was a retention discount. What if the team incorporated other incentives in the decision? Could it predict who would be receptive to those incentives? Could it use AI to tell which incentive would work best with each type of customer?

The second type of analysis should quantify the potential gains of making AI predictions more frequently or more

granular or both. At one retailer, for instance, the data science team had developed AI that could make daily predictions of responses to marketing actions at the individual-customer level, yet the chain's marketing team was making decisions on a weekly basis across 16 customer segments. While changing the way the decisions were made would obviously incur costs, would the retailer find that the benefits outweighed them?

MARKETING NEEDS AI. But AI needs marketing thinking to realize its full potential. This requires the marketing and data science teams to have a constant dialogue so that they can understand how to move from a theoretical solution to something that can be implemented.

The framework we've presented here has proven to be useful for getting the two groups to work together and boost the payoffs from AI investments. The approach we've described should create opportunities to better align AI predictions with desired enterprise outcomes, recognize the asymmetric costs of poor predictions, and change the decisions' scope by allowing the team to rethink the frequency and granularity of actions.

As marketers and data scientists use this framework, they must establish an environment that allows a transparent review of performance and regular iterations on approach—always recognizing that the objective is not perfection but ongoing improvement. 

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Don't Buy the Wrong Marketing Tech

Instead, take these three steps.



A CONGLOMERATE HOPING to improve sales conversions signed on with a third-party software platform that promised to generate and prioritize new leads. But the salespeople found that the leads it gave them were low quality and that it didn't work well with their other sales tools. So instead they focused on selling to existing customers, which was easier and more productive. After considerable time and expense, the platform was abandoned, and the sales team was left wondering what to do next.

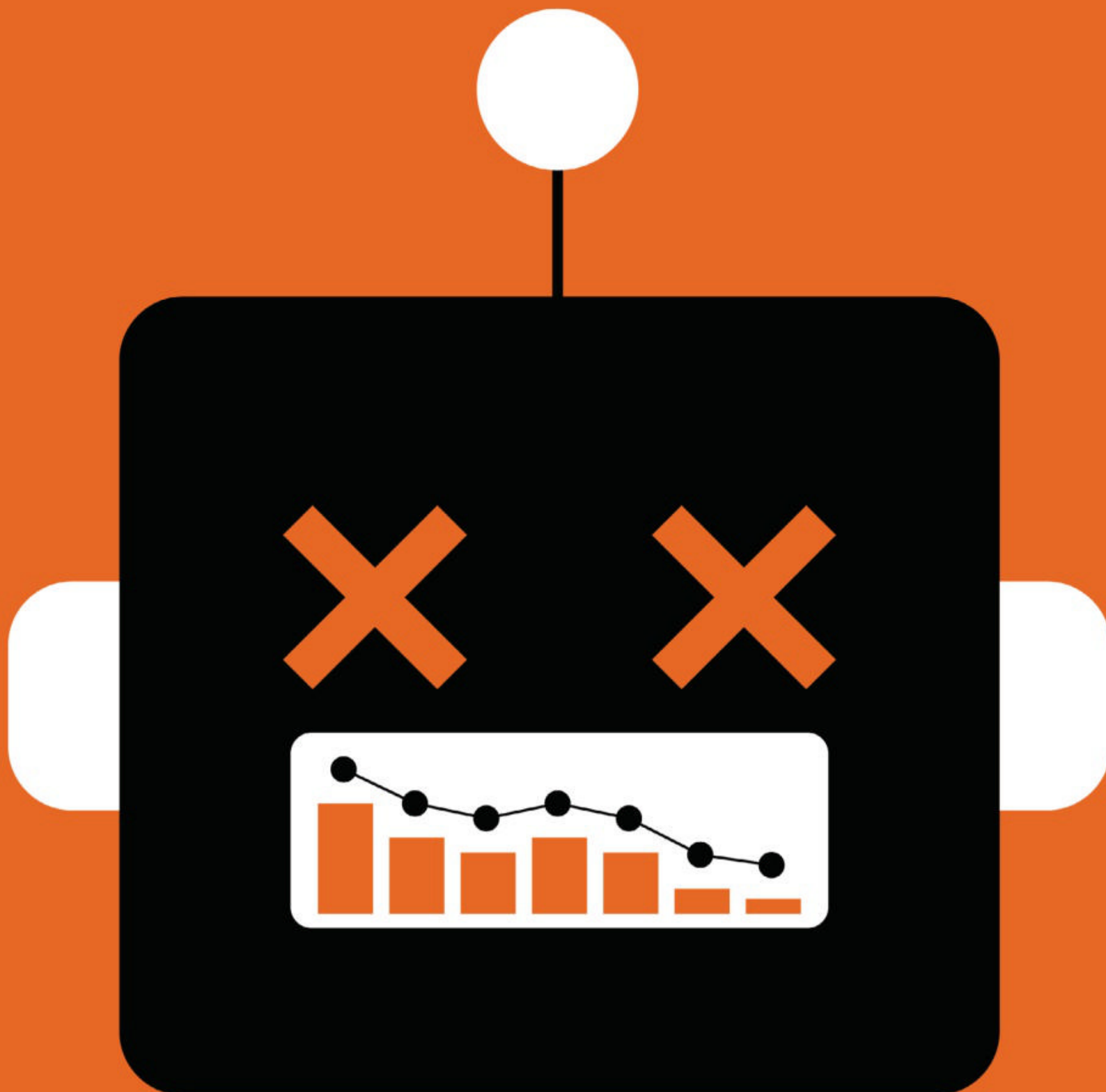
At another firm an executive who attended a software conference became enamored with one exhibitor's web-based content management system, which produced stunning data visualizations. So he bought the off-the-shelf

product for his company's website to use, believing his colleagues would be excited to adopt it. Yet he'd failed to consider how it worked with other technologies in the organization. In the end the purchase was a waste of several hundred thousand dollars, and the solution was replaced with another one that integrated with the firm's systems more seamlessly.

A third firm contracted a vendor to build a customized central platform that could extract insights from data on customer behavior. The team that had hired the vendor gloated about the size and mix of the data—but couldn't provide the chief marketing officer with any insights that improved the business. Over time this system too was scrapped.



Martech is a \$122 billion industry that's growing by 22% year over year; 70% of CMOs are increasing their investments in it.





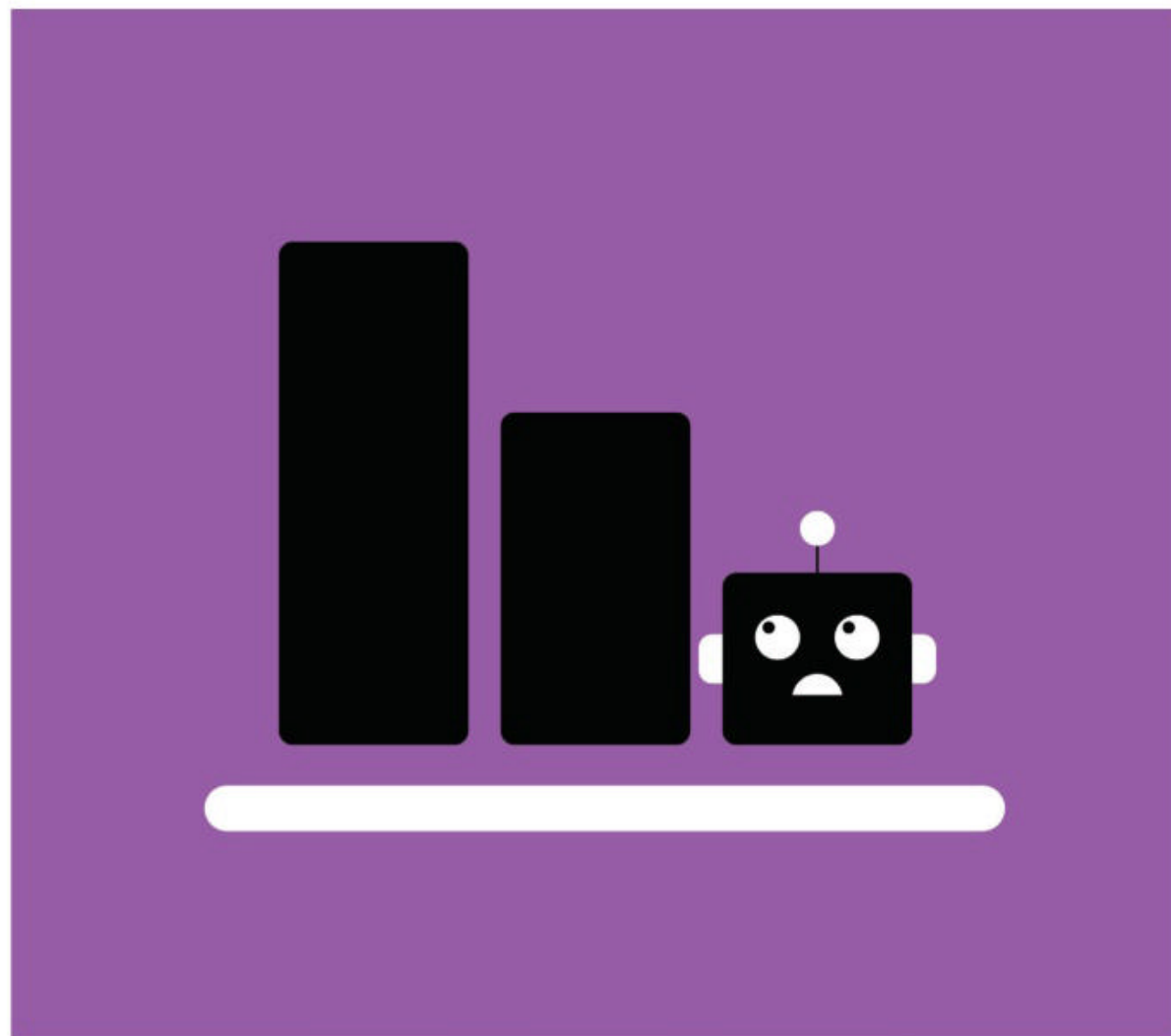
Bottom-up approaches often result in tools and data that are misaligned with the business objective or unable to provide relevant insights.

These disguised vignettes are all actual examples of how marketing technology is failing companies, drawn from our interviews with senior marketing technology managers.

Marketing technology, or “martech,” has become ubiquitous and necessary. By sourcing, archiving, and integrating customer information and feeding it into algorithms, martech can greatly increase marketers’ efficiency. It has already revolutionized advertising, content marketing, sales management, and commerce. The CMO Council reports that nearly 70% of its members are increasing their investments in marketing technology, and according to BDO, WARC, and the University of Bristol, martech is a \$122 billion industry that’s growing by 22% year over year. Venture funding and subscription-pricing models are inspiring entrepreneurs to launch more martech start-ups. The number of new entrants in 2019 alone nearly equaled the size of the entire industry in 2015. Meanwhile, tools that allow customers to integrate services the way children snap together Legos are leading more companies to sign on to new offerings each month.

So why isn’t martech working for so many firms?

In this article we first outline two key pitfalls: *data hoarding* and the *shiny new object* syndrome. These errors are compounded by the larger problem of making decisions in a bottom-up manner, whereby the availability of systems and data drive the use cases chosen instead of the use cases’ driving the data and tools chosen. We then offer a top-down, strategic approach to managing the marketing technology stack—the set of data and vendor solutions—and provide



an example of how it was used by a large software company to ensure success.

Data Hoarding and Shiny New Objects

Data hoarding—the acquisition and retention of information just because it might be of use someday and is close at hand—creates several problems. First, collecting hay to find needles is not very efficient. Worse, one might not even find the right needles. Consider a company that gathers information on every customer touchpoint, starting with the first inbound site visit, compiling years of data on transactions, location, web views, social media engagements, credit

reports, driving records, and more.

If a significant portion of that data is irrelevant, it will distract firms and get in the way of reaching more-important insights. Second, data hoarding is not goal directed—a problem that predictive artificial intelligence can’t solve. In the end managers wind up with the data they have instead of the data they need. Between the expense of acquisition and storage and the waste of time, the cost of data hoarding can be immense.

The shiny new object syndrome affects firms that sign on with vendors that offer intriguing tools, regardless of whether those tools will solve the firms’ specific problems. Martech tools come in two main forms—new applications and

new methods—and both kinds can fall short. For example, there is an endless stream of new customer segmentation applications (commonly called customer profiles or personas), but many tell companies nothing about how responsive different customers will be to marketing. Likewise, there's a growing array of methods such as machine learning and AI tools, but their applicability and performance vary considerably across uses, industries, and even time. Often they come with a variety of interfaces and dazzling graphics that aren't always helpful. A word cloud of brand mentions on social media, for example, says little about whether those mentions are made by target prospects. A better approach is to first consider the touchpoints where targets engage and then look for methods and data that tap into them.

What do data hoarding and the shiny new object syndrome have in common? Both have a bottom-up instead of a top-down focus. That is, rather than starting with the objective of solving a business problem—such as how to drive customers along the path to purchase—they begin with what is available or being sold to the company. Bottom-up approaches often result in tools and data that are either misaligned with the business objective or unable to provide insights that are relevant to it. As a result, the marketing technologies ultimately wind up unused and neglected. They become junk.

Moving Toward a Top-Down Approach

Creating a top-down marketing stack involves a three-step framework we call the three D's: *deconstructing* the

customer journey, *decomposing* the marketing strategy into tactics, and *designing* the martech stack.

Deconstruct. First, you need to break down the customer journey into its major phases, from the initial customer contact to post-sales activities, and for each phase define a desired outcome and metrics for assessing it. At the start of the journey, for example, you might focus on awareness and assess it through customer surveys or numbers of site visits. At the end you might focus on satisfaction and measure it through mentions on social media or product returns.

Decompose. Next, you must take your desired outcomes and break your strategies for achieving them down into core tactics. Ultimately, it is these tactics that marketing technology will seek to scale up or automate. Say you want to increase customer awareness; a good tactic for doing that is inbound marketing. A good tactic for increasing satisfaction, on the other hand, is to enhance the customer experience through superior site content or operations.

Design. Once the marketing team has defined its core tactics, it's time to decide which tools can be used to support each one. For this task, we recommend something we call the Martech Matrix. It maps out which tool is designed to support which tactic and makes clear how the tools should work together. (See the exhibit "The Martech Matrix.")

Until recently, managers could keep track of how they were using marketing tech manually. But as martech tools have proliferated, managing them has become more complex. And without more-sophisticated coordination, martech failures are becoming more

common. One example from our executive interviews involved a firm that used one product to manage event registrations and another for automating email distribution and customer databases. Though both products involved registration information, they couldn't communicate and duplicated functions. Because of the lack of coordination, funds and time were wasted.

To avoid problems like this, managers need to recognize how interdependent the elements of the martech stack are. If any component in the stack fails, the whole system may crash.

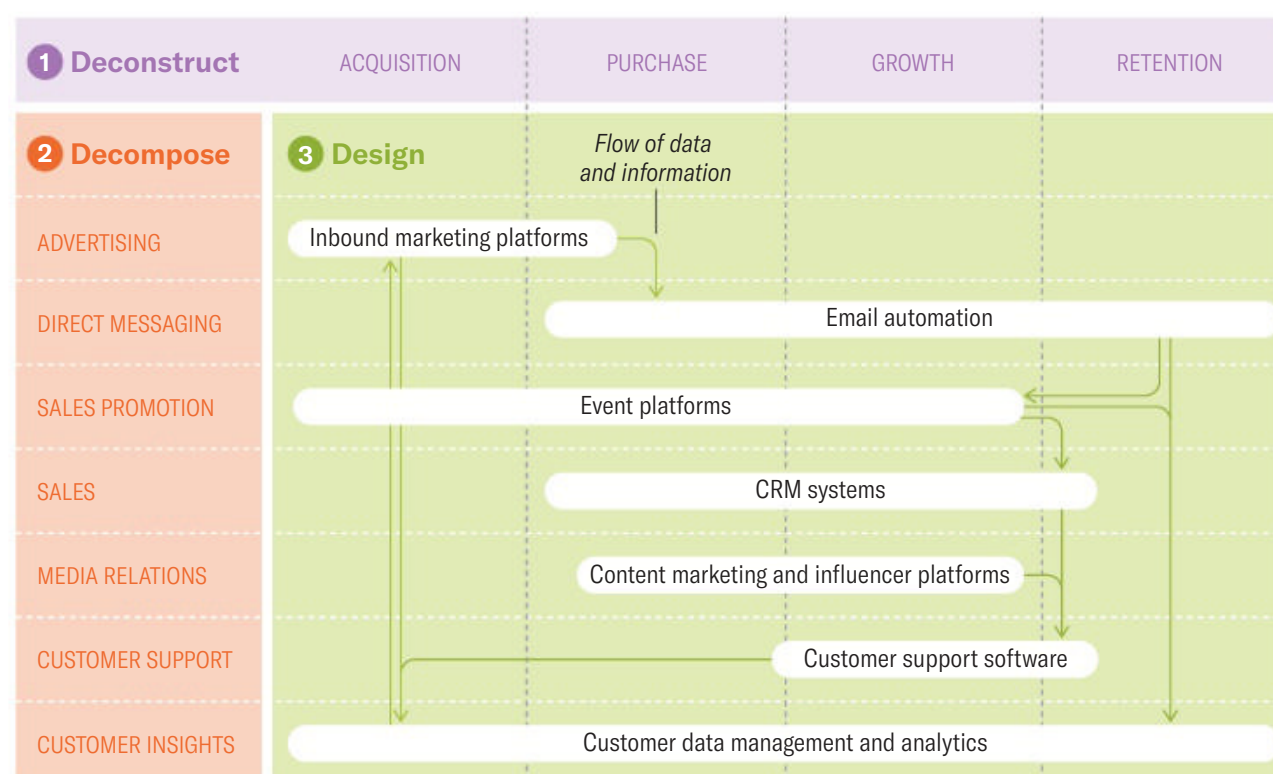
The three-D, top-down approach has several key benefits. First, it's proactive, not reactive. That improves efficiency and lowers costs. Second, it enables managers to spot holes and redundancies in their martech strategies. Third, it explains the martech structure to others in the organization. Teams designing a stack often have to endure spurious "alterations" proposed by vested interests. Our interviews suggest that it isn't uncommon for managers to favor a particular technology without regard to how it integrates with other technologies. The articulation of martech as a system helps prevent this, because it highlights how the tools work together as well as areas of potential duplication.

Bringing It All Together

Besides making smart choices about which tools to use, managers must also build an internal case for adopting the martech strategy, create the right organizational structure to nurture it, and persuade others in the organization to deploy it.

The Martech Matrix

Filling out the marketing matrix can help companies ensure that their marketing technology investments produce good returns. First, companies should **deconstruct** the customer journey into its key phases and identify objectives to be pursued at each. Second, they should **decompose** the strategies for achieving those objectives into specific tactics. (At right, we show seven classic tactics of marketing, including the promotional mix, but each encompasses numerous finer tactics; firms should spell out the particular ones they plan to use.) Third, they should **design** how individual technologies supporting those tactics will be connected, looking for gaps and redundancies.



Making the use case requires managers to consider two critical questions: (1) Will the data or answers we get from the technologies actually alter the decisions we make? And if so, (2) will the benefits be greater than the cost of implementing the technologies? If an advertising program, for example, remains the same once the firm has new ad data or tools, the utility of the technology is negligible. And even if the program changes, the return on investment might be so small that it's not worth it.

Creating the supporting organizational structure is also challenging. Several years ago many marketing functions were hosted by IT because they were data-intensive and expensive. However, the landscape has evolved for several reasons. First, the cloud allowed data and software to be hosted off-site, obviating the need for large internal infrastructure investments, which are typically the purview of IT. Second, the pricing model for software has switched from purchases to subscriptions, or software as a service. That means firms need not make big up-front investments in software, which again was usually the

job of IT. Third, application programming interfaces (APIs) have enabled disparate solutions to work together more efficiently. Internally developed solutions, however, often can't tap into the broader ecosystem of marketing technology, so companies are choosing more tools developed by third parties, which are being managed by marketing and sales rather than IT. Because of this, many companies are now using hybrid matrix organizational approaches to manage these technologies. Each vertical function (such as marketing, sales, or support) has a person dedicated to its technology needs while a senior martech manager, who reports to the CMO, ensures that the tools used by all the functions work in a coordinated manner.

In a large organization, getting buy-in from internal stakeholders is also necessary for successful deployment. The intended users should have significant input into both the design of solutions and their implementation. The users need to feel that solutions will expedite and improve their work and be easy to employ. Second, there must be an organizational commitment to resourcing and training. Leaders often assume that their

teams have the capacity and knowledge to adopt new technology. Dazzled by a shiny new user interface in a product demonstration, a leader sometimes mistakenly presumes a tool is simple to use, but many tools aren't. Companies must ensure that employees are able to gain proficiency in the new technology.

How One Company Revolutionized Its Martech

To see how all this comes together, let's examine Oracle's experience.

In 2012, Oracle was shifting from selling products to selling services via the cloud. Its on-premises internal marketing capabilities and legacy technology were inconsistent with its new positioning and becoming obsolete. The integration of data across technologies at the company was incomplete and in some areas unfeasible. In one instance, redundant and incompatible online event technologies were adopted. Hundreds of thousands of customer data points were disorganized and disconnected. That limited Oracle's ability to deploy technologies that were critical to its sales pipeline. Moreover, organizational silos separating sales,

field marketing, product marketing, and corporate marketing led to inconsistent messaging and a fragmented customer experience.

As a result, Oracle was able to convert only 2% of marketing's qualified leads into sales. Salespeople constantly groused about low-quality leads. "We had yet to convince the organization that we were having a financial impact on the business," says Bence Gazdag, senior director of marketing technology. To turn things around, Oracle's martech team followed the three-D approach:

1 First, the team deconstructed the customer journey so that it could link the marketing technologies better to desirable outcomes. The outcomes it identified included generating awareness, enhancing engagement, driving purchases, and improving retention.

2 Second, the team decomposed the associated marketing strategies into tactics that could be mapped against the customer journey, such as account-based marketing, which drives purchases by sending customers and prospects highly customized messages. That exercise revealed some new insights about which tactics could be automated—for instance, that AI trained on customer data could replace the laborious process of writing account-specific emails at scale.

3 Next, the team designed the martech stack, by linking technologies to the marketing tactics used for each phase of the journey and mapping data flows across those technologies to ensure that they functioned as an integrated system. For example, tools used by the sales

force had to communicate with account-based marketing products to ensure consistency in messaging. Neither could be chosen separately.

Though the transformation faced many potential roadblocks, it benefited from the firm's attention to implementation. First, the use cases and financial benefits for the organization were clearly defined by senior management, thereby ensuring resource commitment. For example, the effort would not only improve Oracle's own lead conversion rates but also strengthen its understanding of the needs of its own clients and how Oracle's technology products could help them.

Second, a new organizational structure was put in place to manage the transition and beyond. Previously, the sales, field marketing, product marketing, and corporate marketing functions each managed its own technology. Now all martech is controlled by a centralized function in a new global marketing demand center reporting to the CMO, who holds weekly coordination meetings to ensure martech remains a strategic priority.

Finally, the team sold the martech innovations internally by targeting influencers and early adopters with high perceived expertise within the organization. Their support accelerated the embrace of martech among those in the middle of the adoption curve, while laggards on the slow end of the curve were reassigned to other roles or let go. The technology was also streamlined to make it easier to use. Meanwhile, the insights gained from deploying the three-D framework began helping Oracle sell its own technologies to its customers.

Today, Oracle has one of the most complete and efficient martech stacks in the world. It has high levels of use within the organization. Average transactions are 69% larger when marketing is involved. Seventy percent of the company's customer-purchase experiences have been automated, which has helped double its opportunity-to-lead conversion rate and reduce the time it takes to initiate a marketing campaign from four weeks to five days. Marketing now handles 1.5 billion customer interactions yearly, up from 2 million. Moreover, opportunistic purchases of shiny new objects have largely disappeared, because new tools aren't adopted if they don't fit into the organizational strategy or with the system of existing technologies.

IN LIGHT OF its tremendous growth and adoption, marketing technology now commands the attention of every major organization. However, companies should realize the risks of buying too many third-party tools without enough coordination or a strategy for their use. The methods we've described here should help companies avoid data hoarding and the false promise of shiny new objects—and enable them to create a martech stack that's more likely to drive sales up and costs down. 

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“As demonstrated by designer clothing, it is possible to create a circular business model in which value is almost entirely intangible.”

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CHANGE
MANAGEMENT



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How Good Is Your Company at *Change?*

A new system for
measuring (and
improving) your
ability to adapt





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It was a month like no other

that Delta Air Lines had ever experienced: March 2020. Travel bans and rising coronavirus fears sent bookings into negative territory—more customers were canceling upcoming trips than booking new ones—and at the nadir the airline cut 85% of its flights. Not even the terrorist attacks of 9/11 had precipitated such a sharp drop in business, and the decline was accelerating each day.

Unprecedented change required a serious response. A week after the United States locked down, Delta began calling big corporate clients and surveying leisure travelers. What can we do, the company asked, to make you more comfortable with air travel? Customers consistently said they just didn't feel at ease being seated next to strangers, even with mask requirements, improved air-circulation technology, and heightened cleaning.

Though it would be costly, the best response, Delta executives decided, would be to block the sale of middle seats. In the first week of April 2020, when Delta's CEO, Ed Bastian, made the decision, planes weren't filling up anyway, so the immediate impact was muted, but Bastian and his team were playing the long game. According to Paul Baldoni, Delta's vice president of Americas pricing and revenue management, the goal was to help customers relax about traveling—in that difficult moment and over the long term. Indeed, Delta kept its block in place for 12 months, until May 1, 2021, by which time, management argued, vaccines and a decline in overall





ABOUT THE ART

Kelsey McClellan photographs the meticulously trimmed, personality-filled topiary of her San Francisco neighborhood.

cases had customers feeling much more secure about flying in full cabins again.

Delta made the decision to block the sale of middle seats relatively quickly. But implementing it wasn't easy. As a legacy airline, the product of multiple mergers over the years, Delta has many different technology systems. Instituting a change of this magnitude across all those systems, executives knew, would be complicated. They drew up a list of 25 to 30 things they would need to do to succeed, from adjustments to the digital site to internal and external communications about the new policy. As they worked through their to-dos, and as more levels of the organization became involved, that list grew to hundreds of items.

To help ensure that no one was placed in a blocked seat, for example, the company laminated cards detailing the new policy and distributed them to gate agents and flight attendants—a simple fix, but it worked. Over time, though, Delta shifted from emergency fixes to systemic changes. “We start with the quick solution,” Baldoni says, describing its approach, “and then look at how we can make it more efficient.” Soon the company was building new rules into all its technology systems, which allowed it to automatically determine passenger limits by plane model. Many of Delta's competitors eventually followed suit, though often with less clear-cut policies, and most dropped the restrictions within a few months.

Delta's quick response to the pandemic illustrates how a large-scale, complex organization can lean into its strengths and effect major change in rather short order. In the fourth quarter of 2020 removing the middle seat left the airline with

9% fewer seats to sell than its competitors had, but even so, Delta's revenue was 12% higher than the average of American, United, and Southwest combined—a difference management sees as an indication that its customers were willing to pay for the extra space. Delta's overall Net Promoter Score also skyrocketed to an all-time high, demonstrating that its long-term focus paid dividends.

The lesson: A company's capacity for change matters. A lot.

Determining Your Change Power

We talk to executives all the time, all over the world, and no matter how we start out, we always end up discussing change. These executives are seasoned professionals—experts in their fields, with a deep understanding of their companies and their markets, and usually very well schooled in the art of management. But the current business landscape is evolving so rapidly and unpredictably that they are full of questions about change. *How much?* they want to know. *How fast? How sustainable?* And sometimes just *How?*

In our experience companies can't hope to answer these questions unless they understand their own capacity for change. Traditionally that has been hard to determine, because they've lacked effective tools for measuring it. To paraphrase the old adage: If you can't measure it, it sure is hard to address.

Two years ago, in response to the rising chorus of questions, we began devising a system to help companies measure their capacity for change—their *change power*, as

IDEA IN BRIEF

THE PROBLEM

In today's rapidly evolving business landscape, companies need to understand their capacity for change. But until now that capacity hasn't been easy to determine, because we've lacked effective tools for measuring it.

THE SOLUTION

To gauge the capacity for change, the authors have created a system that rates companies on nine common traits and abilities. These ratings illuminate strengths and weaknesses—and allow companies to determine their overall change power.

THE BENEFITS

Change power is a strong predictor of performance. Companies with high change power scores are more profitable, grow revenue faster, offer better shareholder returns, have leaders and cultures that are more highly rated, and are home to more-engaged employees.



Some people were skeptical. How can you possibly measure something as amorphous and intangible as the capacity for change?

we call it. Some people were skeptical. The idea seemed impractical, even quixotic. How can you possibly measure something as amorphous and intangible as the capacity for change? But the more we thought about it, the more we felt that question demanded an answer. After all, we have metrics for many things in business today that once seemed impossible to measure. Just a few decades ago companies had no good measure of customer loyalty. Then, in this magazine, our Bain colleague Frederick Reichheld introduced the Net Promoter System. Today NPS is so widely accepted as a barometer of success that many companies report it to their investors. That example inspired us to develop a roughly analogous system for measuring change power.

We had been studying corporate change efforts for more than a decade, tracking which programs worked and which didn't. From that research we identified nine common traits and abilities that make companies excel at change: *purpose*, *direction*, and *connection* (necessary for leading change); *capacity*, *choreography*, and *scaling* (necessary for accelerating change); and *development*, *action*, and *flexibility* (necessary for organizing change). Delta Air Lines has strengths in each of the three groups, which helps explain why it responded so well when the pandemic hit, relative to its competitors. The company is particularly strong in purpose, connection, and action.

To determine the change profile of an organization, employees are asked to score it on statements related to each of the nine traits. The scores are combined to get an overall change power number, which provides a ranking relative to competitors and other companies on our change power index.

In developing our system we conducted a survey of close to 2,000 employees from 37 large global organizations representing a variety of industries. What we found is that a company's change power is a strong predictor of its performance. Companies that appear in the top quartile of the index are more profitable, with margins twice those of companies in the bottom quartile. Companies in the top half grow revenue up to three times as fast as do companies in the same industry that rank in the bottom half. Each move into a higher decile on the index (from, say, the 50th to the 60th percentile) correlates with a margin improvement of 150 basis points and an increase in total shareholder return of more than 250 basis points. In addition, companies that appear in the top

The Elements of Change Power

Nine traits and abilities help companies excel at change. Understanding your strengths and weaknesses in these categories allows you to determine your capacity for change and to create a blueprint for increasing it over time.

ELEMENT	FUNCTION
Purpose	Creates a sense of belonging; guides decisions and inspires action
Direction	Translates your purpose into a plan; clarifies where you are going and how to get there
Connection	Taps into the social side of change; creates networks of influencers and fans
Capacity	Defines the limits of change; allows you to absorb more change
Choreography	Helps you be more dynamic; adjusts change priorities and sequences moves
Scaling	Creates a virtuous cycle; spreads innovation and amplifies impact
Development	Prepares you for growth; builds learning and change capability
Action	Builds momentum; fosters a can-do mindset and a bias for change
Flexibility	Helps you stay in front of change; redefines how you work and even what work is

quartile of the index tend to have leaders and cultures that rate significantly higher in the eyes of their employees than those in the bottom quartile, and they have employees who feel more inspired and engaged. These findings on leadership, culture, inspiration, and engagement were consistent with Glassdoor rankings for the same companies.

What we learned in our research convinced us that change power is a valuable metric for companies to focus on. By working to understand their capacity for change, they can



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identify their strengths and weaknesses, take stock of how they compare with their competitors, and use that knowledge to develop focused plans for getting better at change.

Four Common Archetypes

Every company will have its own balance of factors that affect change power. But we've found that most fit a pattern corresponding to one of four common archetypes: *In search of focus*, *stuck and skeptical*, *aligned but constrained*, and *struggling to keep up*. Each archetype has its own symptoms and remedies.

In search of focus. This archetype describes 37% of the companies we reviewed. Their strength is their energy. They're beehives of activity and have had many successes. They're constantly innovating, and their people have the capacity to take on a lot. But, like young children playing soccer, everyone in these companies seems to be chasing the ball. Statistically, this group shows weakness in the traits of purpose, direction, and connection.

To address this, leaders should focus on the big picture, connecting company activities to purpose and strategy. Defining a multiyear ambition—and then telling and retelling the story of how you and your company will make that ambition a reality—is important to a sense of common purpose. It can also be helpful to identify top initiatives and assign them to agile teams that connect various disciplines, functions, and parts of the organization. But you must prioritize ruthlessly: To stay focused on the best initiatives, you'll have to say no to some good ones.

Delta has harnessed its proclivity for action by focusing on purpose and connection during this time of change. The company has accelerated a number of its airport-renovation projects despite the drop in air travel, and it is now 18 months ahead of schedule on one of the biggest: a \$1.9 billion project to connect and refurbish two terminals at LAX in Los Angeles. Speeding up construction meant closing an entire terminal, so Delta management worked with frontline employees to understand what the implications would be, from mapping new shuttle bus routes to adjusting staffing. Executives consistently made the case with employees for the value of new technology and the better door-to-door customer experience the upgrades would enable. To build connection

and ensure that its workforce felt part of the process, Delta (which, unlike many other airlines, manages its own construction projects) invited all employees, from gate agents to pilots, to come out and sign the beam that would be placed over the new terminal entrance before it was hoisted into place. "It's making everybody a participant in the process," says Mark Pearson, Delta's vice president for corporate real estate. "Change is hard. People don't like change in general. The more you can get people excited about better service, the community, a better airport, the better."

Stuck and skeptical. Of the companies we reviewed, 20% fit this archetype. They have good ideas and a history of success, but too much of their change gets stuck at the local level. They tend to underestimate the full scope of what they have taken on. They are commonly weak in connection, scaling, and action. Innovations seem to stall and don't spread across the organization. That makes people impatient: How can all our hard work have so little impact? The elusiveness of success comes to feel almost unfair. Skepticism, even hopelessness, grows.

No single leader can lift a whole company out of this state. Success will come only from reigniting the enthusiasm of your teammates, which starts with convincing them that they can in fact succeed. One way to do that, and to build energy fast, is to quickly put some wins on the board.

A few years ago the CEO of one of the world's largest transportation and logistics companies found himself in exactly this situation. After a year of hard work on a strategic transformation designed to ease competition with digitally native rivals, he noticed that the pace of change seemed to be slowing. This was frustrating. There was still so much to do. His team struggled to convey the urgency of the challenge. Operating in a highly competitive, increasingly commoditized industry, the front line was focused on day-to-day execution and thus easily distracted from the broader strategic challenges.

After some debate over the best approach, the company's leaders tried something they had never done before. They invited 40 influential and respected executives from across the company to meet at the European headquarters. Their task was to create a shared story of the company's future—its common purpose. Together they would articulate why they had to change and what was needed to get there.





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Two days later they had come up with a narrative that they all owned. It did more than set targets and make logical arguments. It had emotional goals: to create a sense of belonging and purpose at all levels, to tap into the staff's love of the industry, and to cultivate a culture of caring, humility, and honor. The 40 leaders returned to their respective markets around the world inspired, aligned, and connected. They were able to catalyze the next phase of transformation for the company, including an energetic new focus on data analytics and artificial intelligence, which they are now using to improve capacity utilization, cut energy usage, and better predict and plan for required maintenance.

Aligned but constrained. This archetype applies to 24% of our companies, which share important strengths: Their employees work well as a unit, have locked arms, and are headed in the same direction. Early success heightened their expectations, and now they find themselves pushing against hard constraints. These companies often don't have the people they need to fill key roles in managing greater amounts of change and its accumulating disruption. Picture running a race in the mud. Each step requires more energy than the one before, which saps optimism. Teams that fall into this category struggle with connection, capacity, and development.

To counter these problems, companies need to identify and address their capacity bottlenecks. They may have to reorder their priorities and add resources where most needed. That involves closing key capability gaps across the organization by bringing in new talent and helping existing talent develop new skills.

Talent development has played an important role at Worley, a global company that provides professional project and asset services to the energy, chemicals, and resources sectors. During the past six years the company has met a series of difficult challenges and established a record of effectively managing change. The first challenge came when a glut of oil overwhelmed a slow-moving economy, causing prices to plunge by 70% from mid-2014 to early 2016. With many of Worley's customers and much of its revenue vulnerable to changes in the price of oil, the downturn forced a significant restructuring.

According to Worley's CEO, Chris Ashton, the stark circumstances demanded that the company create a transformation



What Kind of Company Are You?

To better understand your organization's change archetype, consider these questions.

In search of focus	Stuck and skeptical	Aligned but constrained	Struggling to keep up
• Are your teams uncertain about where the business is headed? • Is there an ongoing debate about direction? • Do your efforts feel disjointed?	• Do new ideas get stuck where they originate? • Do people across the organization feel disconnected? • Do results take longer than they should?	• Do you feel as if you're moving through mud? • Do you worry you don't have the right talent to deliver? • Do you struggle to get your arms around everything that's going on?	• Are your teams weary? • Do you seem to be losing the battle for energy? • Are you slow to make decisions and adapt your approach as conditions change?

team staffed by its best people—those with the ability to learn quickly on the job and engage the broader organization. Many of these people were emerging leaders, and the operations they worked for often had a difficult time letting them go. But given the circumstances, they had little choice. The new team built a turnaround strategy that helped Worley survive the shock. And for the leaders who took part, it was a big development opportunity, says Francis McNiff, the company's executive group director of transition and change, who estimates that the time they spent on the transformation team probably accelerated their careers by several years. When they returned to the business lines, these leaders were armed with a new network of connections from across the organization and quickly became effective local evangelists for the company's strategy.

Worley followed a similar blueprint in 2019, when it merged with the energy, chemicals, and resources division of Jacobs Engineering Group: It assembled a team that was able to ensure a successful integration of the businesses. Then, in 2020, came the “double black swan” of Covid-19 and another oil-market crash. “We had to get right back on the horse,” says Mihaela Carpo, a member of the new transformation team. Job one for the team: almost immediately equipping 45,000 people to work from home. Carpo, now the director of Worley's Group Project Management Office and Innovation, gained confidence in earlier transformation projects. “If this had happened a few years ago,” she says, “I'm not sure if we would have been able to mobilize everybody as quickly or know what to do or what levers to pull. The last few years prepared us for this.”

Worley recently tapped more than 1,000 people, from support staff to PhDs and senior executives, for 70 structured workshops held around the world and designed to help develop and codify a shared purpose and values for the company. At them, groups of 20 to 25 people spent three to four hours exploring questions about what got them out of bed in

the morning, what they saw as the company's greatest business opportunities, what behaviors they believed were key to success, and what they understood Worley's key strengths to be. Karen Sobel, the group president of Worley's business in the Americas, took part in a number of workshops. She recalls that at a large fabrication facility in Norway, teams working in a mix of Norwegian and English really put their hearts into it. “It allowed the people in our organization to tell their story and share their perspective on the direction they thought the company should take,” she says.

The workshops produced a huge amount of data that the team distilled into a core purpose—“Delivering a more sustainable world”—and four company values. According to Ashton, everybody from “graduates to grandparents” agreed that this was the right focus, and the process gave employees a valuable feeling of connection. That sense of purpose, he says, became “a powerful force for change.”

Struggling to keep up. Among the companies we reviewed, 19% fit this archetype. They're like teams of cyclists in the Tour de France, battling a grueling race of many stages. Each day the riders must adjust to changing terrain, unpredictable weather, and the strategies of their competitors. They must plan how they'll work as a team, supporting and even sacrificing for one another. They're great athletes whose single-minded focus and action orientation have delivered results. As the race wears on, fatigue sets in, and adaptability becomes increasingly important. But these companies struggle to cope because they're weak in choreography, scaling, and flexibility. Their single-minded focus, once a virtue, begins to morph into a vice.

Companies in this category need to get better at anticipating what's around the corner and changing their plans accordingly. To catalyze this shift, they must first take stock. Is their strategic direction still the right one? If not, they need to reprioritize and reallocate resources to be ready for the next leg of the race.



Among the companies we reviewed, 19% are like teams of cyclists in the Tour de France, battling a grueling race of many stages.



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Seven years ago Assurant began just such a transformation. In 2014 it was an insurance holding company, a conglomeration of independent businesses acquired over several decades by its former Dutch parent. Each division had its own chief executive and its own leaders of finance, IT, HR, marketing, distribution, and operations. The business units were so distinct that in 2015, when its recently appointed CEO, Alan Colberg, traveled to Atlanta to meet with senior leaders from three of the company's businesses, he discovered that those executives had never been together in one room, even though they worked in the same office building.

Not long after that, it became clear that Assurant's health insurance business—the oldest in the company's portfolio but recently upended by market changes created by the Affordable Care Act—no longer had a sustainable business model. Colberg and the board seized the opportunity to make dramatic changes. Since then Assurant has exited three of four business segments, made a number of significant acquisitions, and centralized many functions. "It's been perpetual change," says Keith Demmings, a 24-year veteran of the company who will succeed Colberg at the end of 2021.

Constant change has led to a lot of questions at Assurant, so management has put a strong focus on communicating its strategy to employees and making the case that as the business evolves, they personally can have a bright future at the company. Today half of every meeting with employees is devoted to Q&A, and executives are always on the lookout for signs of change overload. "I step back every once in a while," says Francesca Luthi, Assurant's chief administrative officer, "and ask myself, Can we still absorb all this? Because it has been fast and furious. There are opportunities for growth, to stretch yourself, but is this just too much? Are we going to break?" Since Colberg became CEO and began to shift its operating model, Assurant's annual shareholder return has risen to 14.6%, up from 10.1% in the decade prior.

According to Luthi, Assurant in recent years has developed new "muscle" and "elasticity" and as a result is better equipped than ever to handle change. The company is more open now to trying new things—and to learning from failure. It has trained 1,000 employees in agile principles of IT management and has introduced a new focus on customers, innovation, testing, and learning.

Steps to Take Now

We live in unprecedented times, and our challenge as leaders is to build businesses that will thrive in a world of unpredictable and accelerating change. So what can you do to boost your change power?

1 Get the facts. Too many companies and executives are wandering in the dark, speculating about what might or might not be. Dig in, determine your change power baseline, and understand where you are relative to your competitors. Identify specifically what you can and must improve. Small moves now are better than big ones later—test, learn, and iterate, as Delta did when implementing its middle-seat block.

2 Disrupt how you work. Approach your current and upcoming changes by thinking not in terms of distinct projects but, rather, in terms of an organizational shift—just as Assurant did when it transformed itself from a disjointed group of independent operators into an organization focused on evolving toward a shared future. Consider these changes a balance-sheet issue and invest actively to build the strength necessary for sustained success.

3 Mobilize your leaders. Transformations provide the best training ground for the next generation of leaders. If you want to disrupt old patterns, embrace a new approach, and improve critical change capabilities, you've got a lot to do: You'll need to orchestrate a team effort, develop a shared ambition, and map an action plan. That's what the logistics company's 40 executives did at their European retreat.

MORE THAN EVER before, companies need to measure, understand, and boost their capacity for change. The ideas we've laid out in this article can help with that. By studying and improving your change power, you can build a nimbler and more resilient organization and become a more formidable competitor in the process.  **HBR Reprint R2104C**

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SUSTAINABILITY



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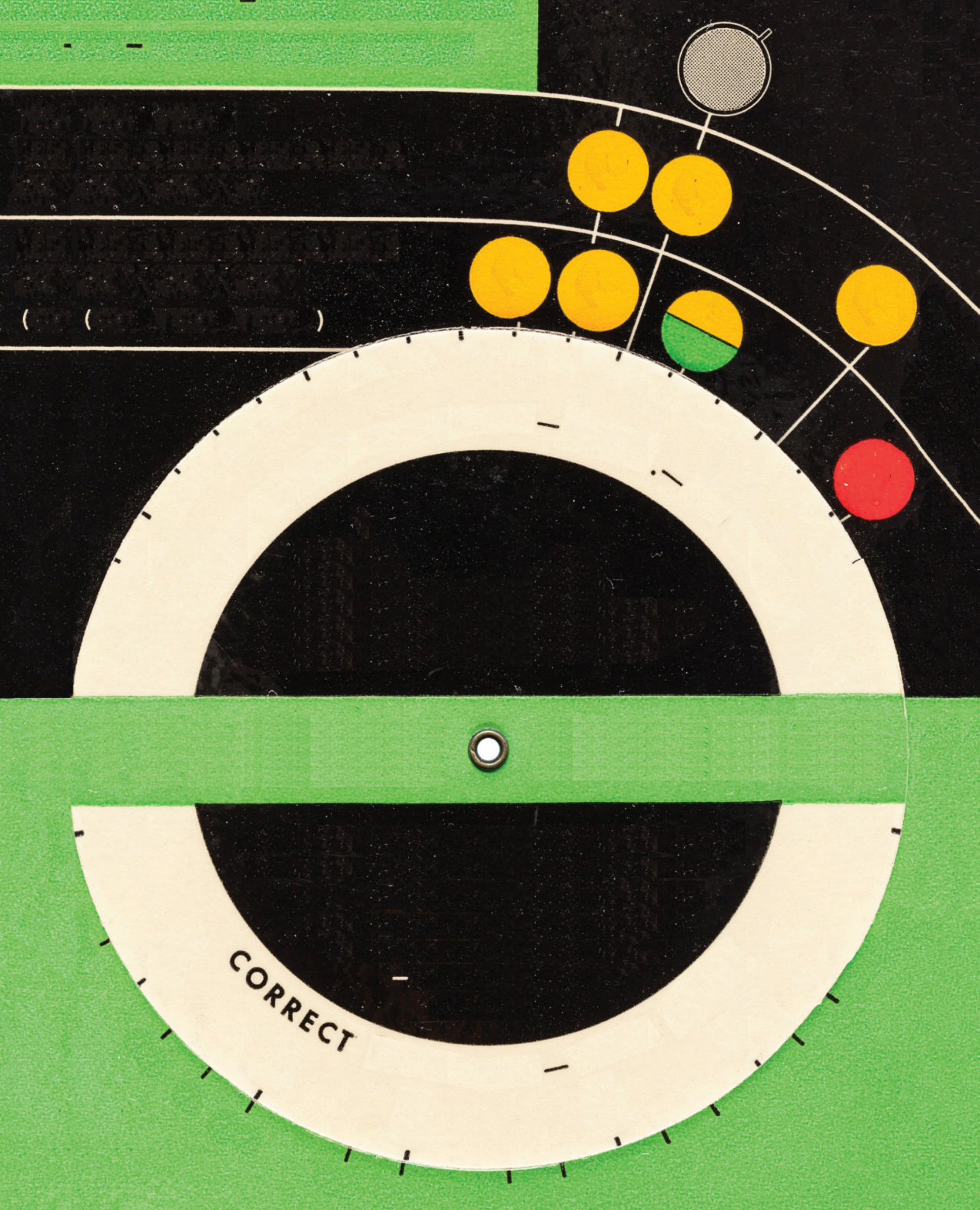


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ANDY MATTERN

The Circular Business Model

Pick a strategy that fits your
resources and capabilities.



CORRECT

IDEA IN BRIEF

THE PROBLEM

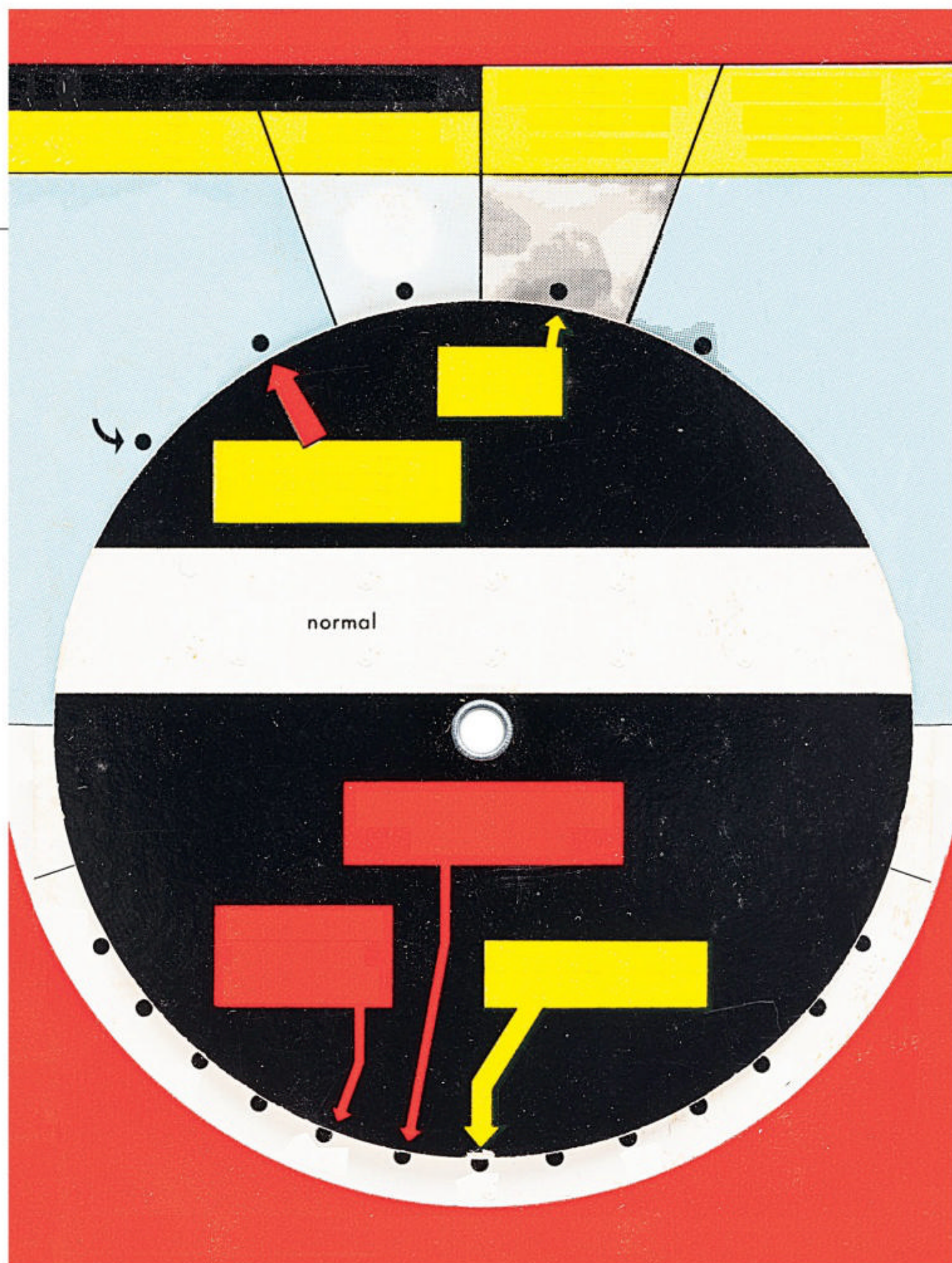
Manufacturing companies attracted by the promise of circular business models—in which used products can be recovered and reused or recycled—may struggle to make them sustainable.

WHY IT HAPPENS

Managers all too often select circularity strategies that don't align with their resources, capabilities, and constraints.

THE SOLUTION

The three basic strategies for creating a circular business model are retaining product ownership, product life extension, and design for recycling. In determining what combination of these to adopt, managers should consider the ease of gaining access to used products and the ease of recycling materials, components, or the complete product. These factors, together with how much value is locked up in the product, determine how much value can be recovered from a given pathway to circularity.

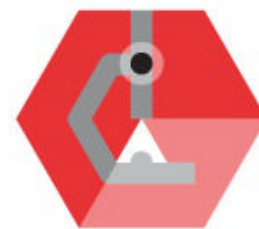


It's easy to see why more and more manufacturing companies are talking about what's often called the circular economy—in which businesses create supply chains that recover or recycle the resources used to create their products. Shrinking their environmental footprint, trimming operational waste, and using expensive resources more efficiently are certainly appealing to CEOs.



ABOUT THE ART

From about 1940 to 1980 Kodak produced thousands of “Kodaguides” meant to help photographers take better pictures. Andy Mattern digitally obscured the technical numbers and explanatory text of these once ubiquitous guides, leaving them as springboards for interpretation.



SUSTAINABILITY

But creating a circular business model is challenging, and taking the wrong approach can be expensive. Consider the case of Interface, an Atlanta-based commercial flooring company. In the 1990s its founder and CEO, Ray Anderson, declared that he wanted Interface to become “the first sustainable corporation in the world.” To achieve that, the company would shift its business model from selling to leasing. It launched the Evergreen Services Agreement (ESA) program, with installation, maintenance, and removal of its flooring bundled under one monthly fee, making it possible for the company to keep used flooring materials out of landfills and recycle the valuable raw materials in them.

This unprecedented move was intended to close the loop of the commercial-carpeting supply chain, and Interface pushed hard to make it work, even going so far as to develop a network of carpet distributors to service clients across the United States on behalf of the company. But after seven years of strenuous sales efforts, Interface had acquired just a handful of lessees. The overwhelming majority of customers preferred to buy rather than lease their carpets, because carpet maintenance fell under the general heading of janitorial services, rendering its costs invisible to them. They could not easily see the upside to paying fairly high monthly fees. The ESA program was simply not scalable.

Happily, that wasn’t the end of the story. In 2000 Interface shifted its focus from long-term leases to producing modular carpet tiles using sustainable materials, such as recyclable nylon fibers and recyclable vinyl backings. And as it turned out, manufacturing the new carpet tiles emitted 75% less carbon than the industry average. Combined with a transition to renewable energy on production sites, these innovations have shrunk Interface’s total carbon footprint by 69%, according to company reports. Unlike leasing, the focus on recycling has leveraged what Interface does best: manufacturing and selling carpets.

Interface’s experience shows that creating a sustainable circular business model depends on many factors, but perhaps the most important is choosing a pathway that aligns with a company’s capabilities and resources—and one that addresses the constraints on its operations. In the following pages we identify the three basic strategies for circularity and offer a tool to help manufacturers identify which is most likely to be economically sustainable for them. Our

recommendations draw on decades of research and consulting with dozens of manufacturers across the world.

THREE STRATEGIES FOR CIRCULARITY

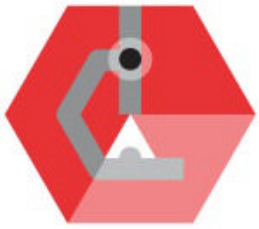
Manufacturing companies—from the producers of products that serve the new economy to the more traditional companies that provide our clothing and furnishings—can create a circular business model in many ways. Most involve a combination of three basic strategies.

Retain product ownership (RPO). In the classic version of this approach, the producer rents or leases its product to the customer rather than selling it. Thus the producer is responsible for products when consumers have finished with them.

RPO is an interesting strategy for companies that offer complex products with a lot of embedded value. A good example is Xerox, which has for a long time leased its printers and photocopiers to corporate customers. This strategy may require companies to invest heavily in after-sales and maintenance capabilities, which may be more expensive for them and, ultimately, their customers than a strategy of sell and replace.

RPO can also work with simpler products when they are relatively expensive and seldom needed. For instance, promgoers have been renting tuxedos for decades, and the rental model is becoming more prevalent in an increasingly status-conscious society. The online fashion subscription service Rent the Runway, for example, rents designer clothes to people in need of a smart outfit for a one-off event. Its clothes may have little intrinsic value—in terms of their raw materials, for example—but their brand value can be significant.

Product life extension (PLE). Companies applying this strategy focus on designing products to last longer, which may open up possibilities for markets in used products. Because a longer product lifespan means fewer purchases over time, this may seem like a bad idea for original-equipment manufacturers. But durability is a key competitive differentiator and provides a strong rationale for premium pricing, as we’ve seen with the outdoor-clothing manufacturer Patagonia and the luxury home-appliance company Miele. PLE can also help companies prevent their customers from defecting to a rival brand. Bosch Power Tools, for example, extends the life of its used tools by



SUSTAINABILITY

remanufacturing them, thereby enabling it to compete with new products from low-cost, low-quality producers.

Design for recycling (DFR). Companies applying this strategy redesign their products and manufacturing processes to maximize recoverability of the materials involved for use in new products. This strategy often involves partnering with companies that have specific technological expertise or that may be best able to use the materials recovered. Adidas's six-year partnership with Parley for the Oceans is an example. Parley uses plastic waste to make textile thread from which Adidas manufactures its shoes and apparel. Their partnership reduces the amount of plastic waste in the world's oceans.

Determining which combination of the three basic strategies will unlock the most value for your company involves some practical and very specific questions, such as whether you can reclaim your product from the customer, whether it can be moved, and whether you can remanufacture it. Let's look now at how best to structure that discussion.

THE CIRCULARITY MATRIX

A circular business model is sustainable only if value can be economically recovered from the product. It might be realized through reusing the product, thereby extending the value of the materials and energy put into the manufacturing process, or by breaking it down into components or raw materials to be recycled for some other use. Value needn't be tangible, of course; as demonstrated by designer clothing, it is possible to create a circular business model in which value is almost entirely intangible.

In general, the greater the value locked into a product—whether in terms of its brand cachet, the resources consumed in manufacturing it, or the premium customers might pay for an environmentally friendly product—the greater the potential for creating a circular business model around it. External factors, such as regulations, secondary markets in used products, or active markets in commodity components, will also determine how much value manufacturers can extract from a circular model.

It is, however, difficult to know just how much of that value a circular business model could unlock. The Slovenian white-goods company Gorenje attempted to lease its washing machines, which would seem to be a plausible strategy for the

product. Washing machines can last a long time, and their useful lives can be extended with careful maintenance. But consumers were sensitive to the fact that they would pay more over the life of the lease than they would to own the machines, while the services they expected from a leasing contract cost more than Gorenje was willing to spend on maintenance.

Assessing the feasibility of a given circularity strategy requires a careful calculation of value and costs and a certain amount of experimentation and piloting. However, companies can clarify their thinking by answering just two questions:

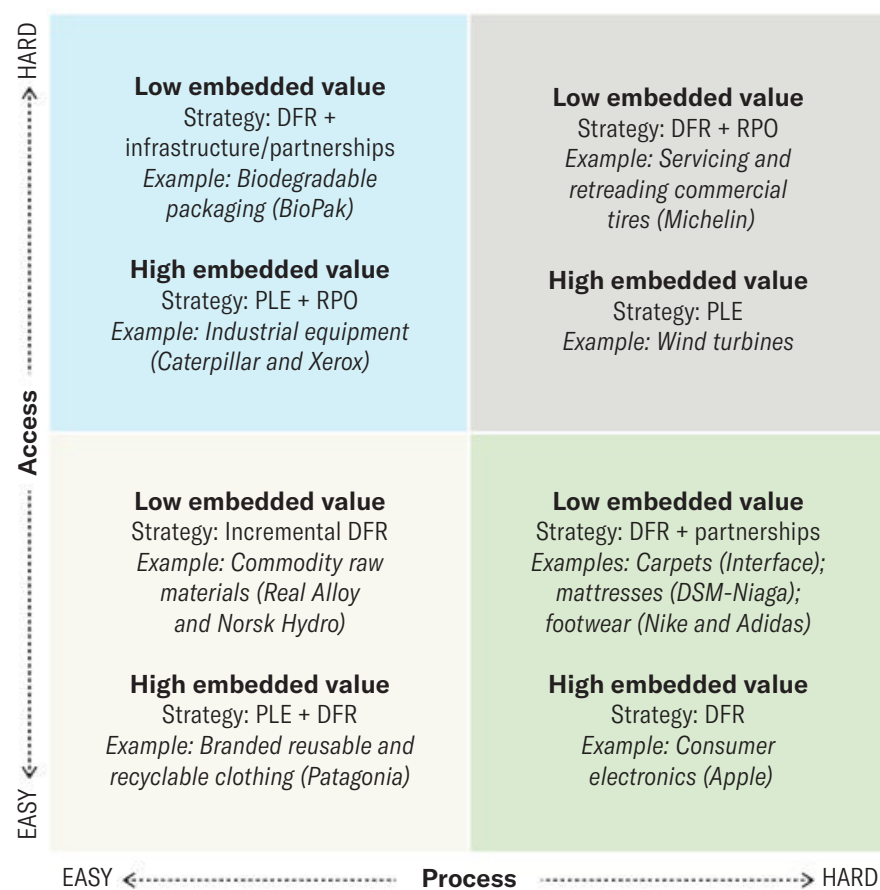
1 How easy is it to get my product back? In Norway more than 97% of plastic bottles are recycled. That's because Norwegians are unusually enthusiastic about recycling—and also because a large retail network (including reverse vending machines) exists for bottle collection, supported by a government-run deposit-refund scheme. In other words, Norway has two key elements for making reverse supply chains work: public participation and infrastructure. Without them, access to used products for circularity can be challenging, as indicated by much lower rates of plastic-bottle collection and recycling in other parts of the world. Another element to consider is the existence of secondary markets in used products and commodity markets into which extracted raw materials can be sold. Consumers will naturally be reluctant to relinquish used products with a high resale or exchange value (such as power tools and construction equipment), making it difficult for original sellers to close the circle. In those cases accessing used products might involve expensive buyback or trade-in programs, which is precisely why companies often consider a leasing business model: It is easier to recover products if you own them.

2 How easy is it to recover value from my product? Extremely heavy or bulky products and those containing potentially hazardous materials may be easy for producers to reclaim legally but difficult and expensive to move and recondition. In a reverse supply chain, moving a washing machine, for example, will clearly be much harder and more expensive than moving an ink cartridge. It is also difficult to recover value when products are intricately constructed. Advanced smartphones and laptops, for instance, are less easily reconstituted than coarser-grained, modular devices such as desktop computers. Finally, the feasibility of value recovery will depend on the availability of cost-effective solutions for reformulating products. If time-intensive manual labor is required, used products must have enough value left in them to justify the investment.

The answers to those two questions help identify where a company belongs in a two-by-two matrix that presents the

The Circularity Matrix

For companies looking to create circular business models for their products, the right model will involve one or more of three basic strategies: retain product ownership (RPO), product life extension (PLE), and design for recycling (DFR). The right strategy can be determined by how easily the manufacturer can get the product back and how easily value can be recovered from it. The challenges each company faces along each dimension will depend on its capabilities and competitive context and may change in response to innovations it and its competitors make.



strategic options for creating a circular business model. (See “The Circularity Matrix.”) Let’s look now at each quadrant.

Hard to access and hard to process. Products in the top right quadrant may experience a level of wear and tear that precludes easy repair and remanufacturing, taking product life extension off the table, especially for products with relatively little value locked up in them. Those that are in good condition and still usable may also have a high resale value in customer-to-customer secondary markets, making it harder for the manufacturer to access them for reconditioning. To prevent the loss of the value embedded in them, we advise manufacturers to consider a combination of design for recycling and retain product ownership.

The French tire manufacturer Michelin seems to be heading down that pathway, although it has not explicitly linked the two strategies. Along with committing to use 80% sustainable materials in its manufacturing, the company has acquired Lehigh Technologies, a Georgia-based maker

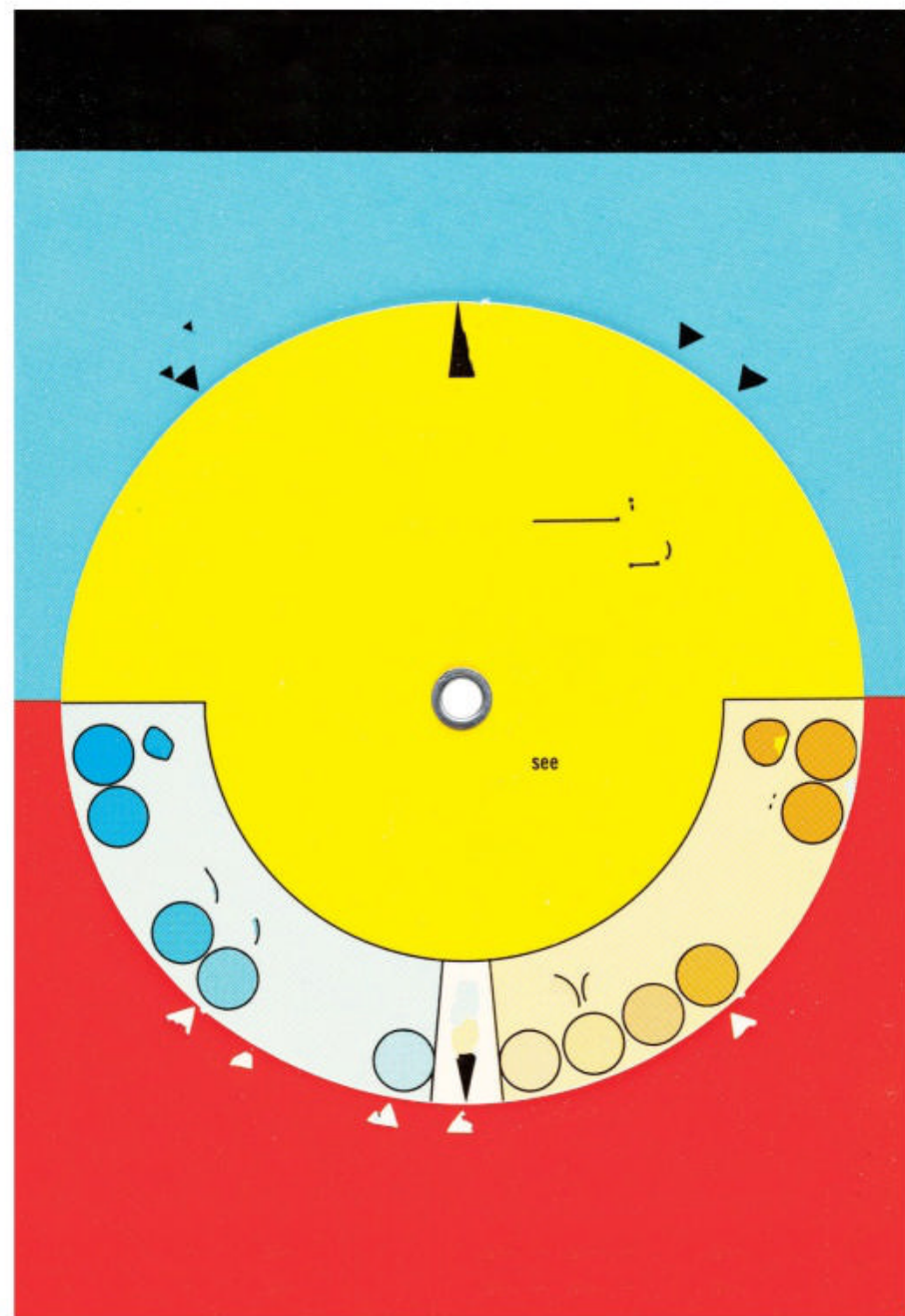
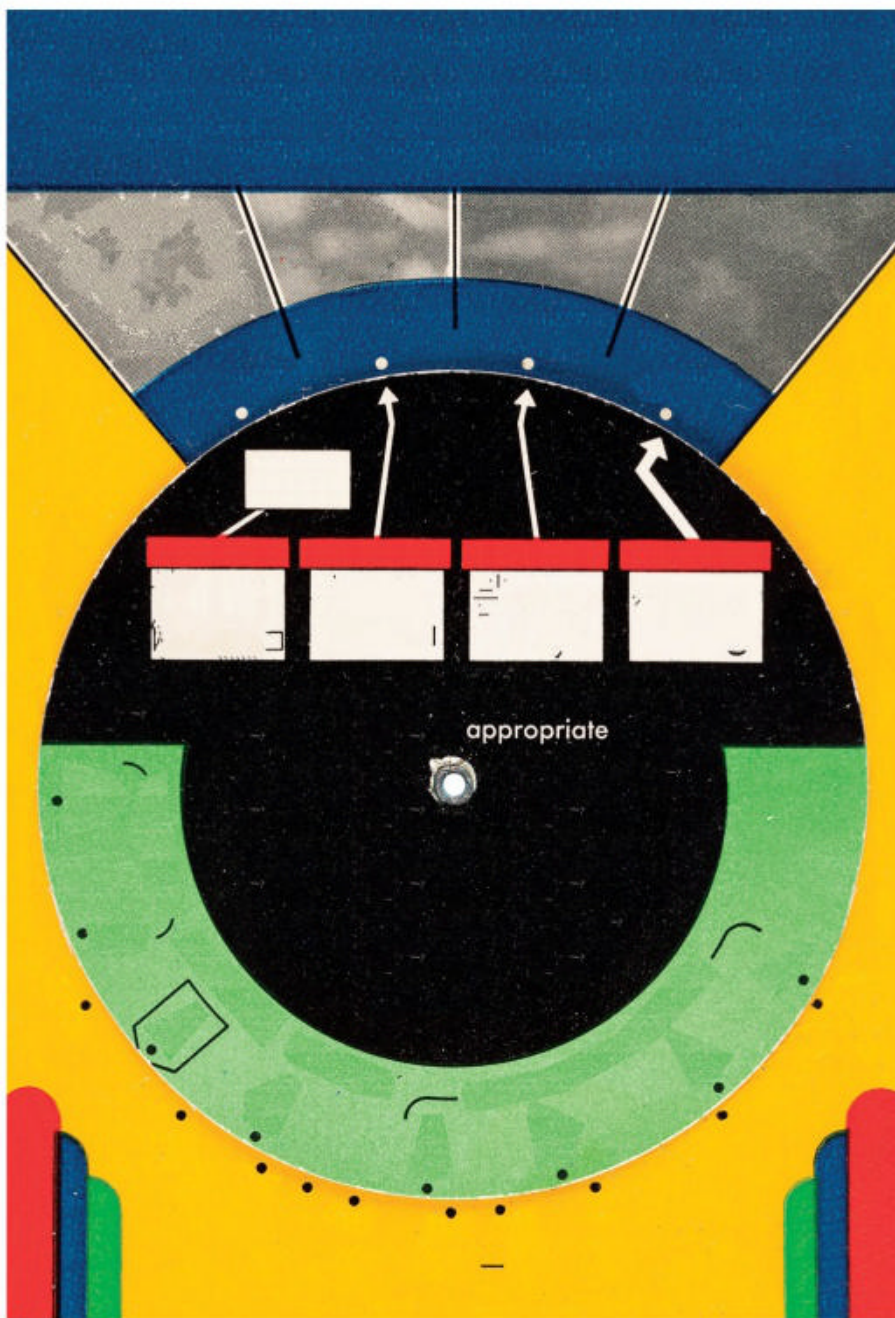
of environmentally friendly rubber powders produced from ground-down end-of-life tires. Meanwhile, it is pivoting to RPO in many B2B markets, promising commercial fleets performance enhancements and cost savings for leasing tires. To deliver those benefits, Michelin’s leasing businesses rely on modern information technologies. Its Effifuel division, for example, installs digital sensors in vehicles to monitor carbon emissions, fuel efficiency, and other performance metrics.

For companies in this quadrant, going circular may have low value potential even with expensive products containing lots of valuable ingredients. Wind turbines provide an extreme example: Although a lot of value was expended in creating them, their remote locations and size make them very difficult to access, while their composition and complex architecture make it hard to extract reusable materials or components. That’s why we see wind turbines piling up in desert landfills.

That doesn’t mean turbine companies should give up on circularity, but they should begin by considering how they can unlock value from the product through a strategy of product life extension. By investing in durability and modularity so that products will last longer and can be more easily maintained, companies could potentially open the door to an RPO model, whereby turbine manufacturers, rather than power companies, would retain ownership of and responsibility for the turbines. In the longer term they might be able to adopt a DFR strategy, making the turbines less reliant on nonrecyclable materials and easier to dismantle.

Easy to access but hard to process. The bottom right quadrant includes relatively low-embedded-value products such as carpets, mattresses, and athletic footwear. On the one hand, ease of portability and the absence of a lucrative secondary market create a strong likelihood that these products can be recouped from the consumer. On the other hand, they can’t be easily reconditioned, and extracting materials from them is complex.

In such cases, going circular will involve product design for recycling. DSM-Niaga, a Dutch start-up founded in 2014, developed a fully recyclable mattress consisting of six modular components, and carpets made from pure polyester rather than the industry-standard materials, which contain an indissoluble complex of chemicals including many known carcinogens. The mattress is easy to disassemble, allowing



for easier maintenance (for example, the mattress covers are removable and washable), and the raw materials can be recycled at the end of the mattress's life. The homogenous design of carpets significantly facilitates material recovery and reduces the water and energy needed in the production process. The new carpets are also lighter, making transport and handling easier.

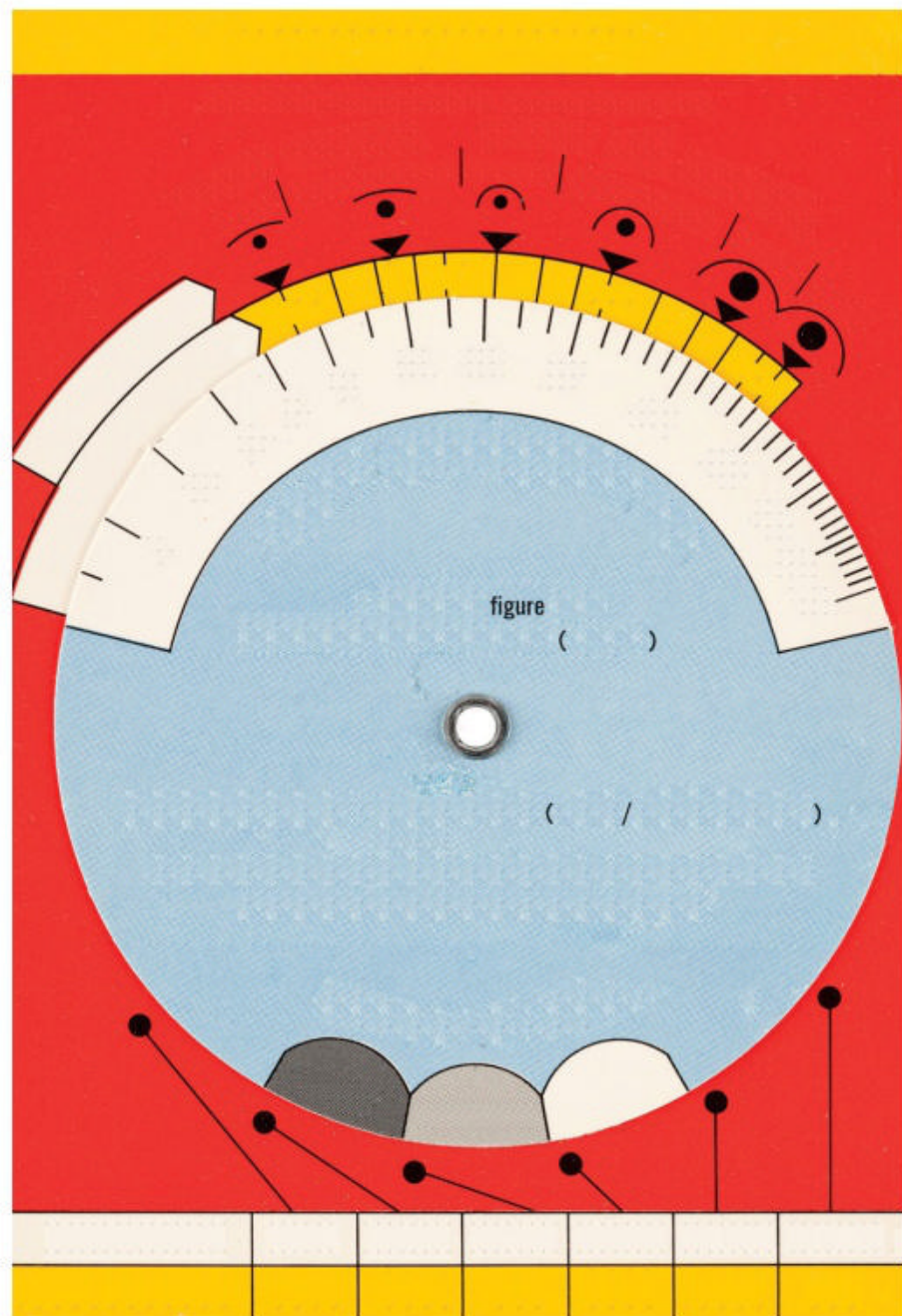
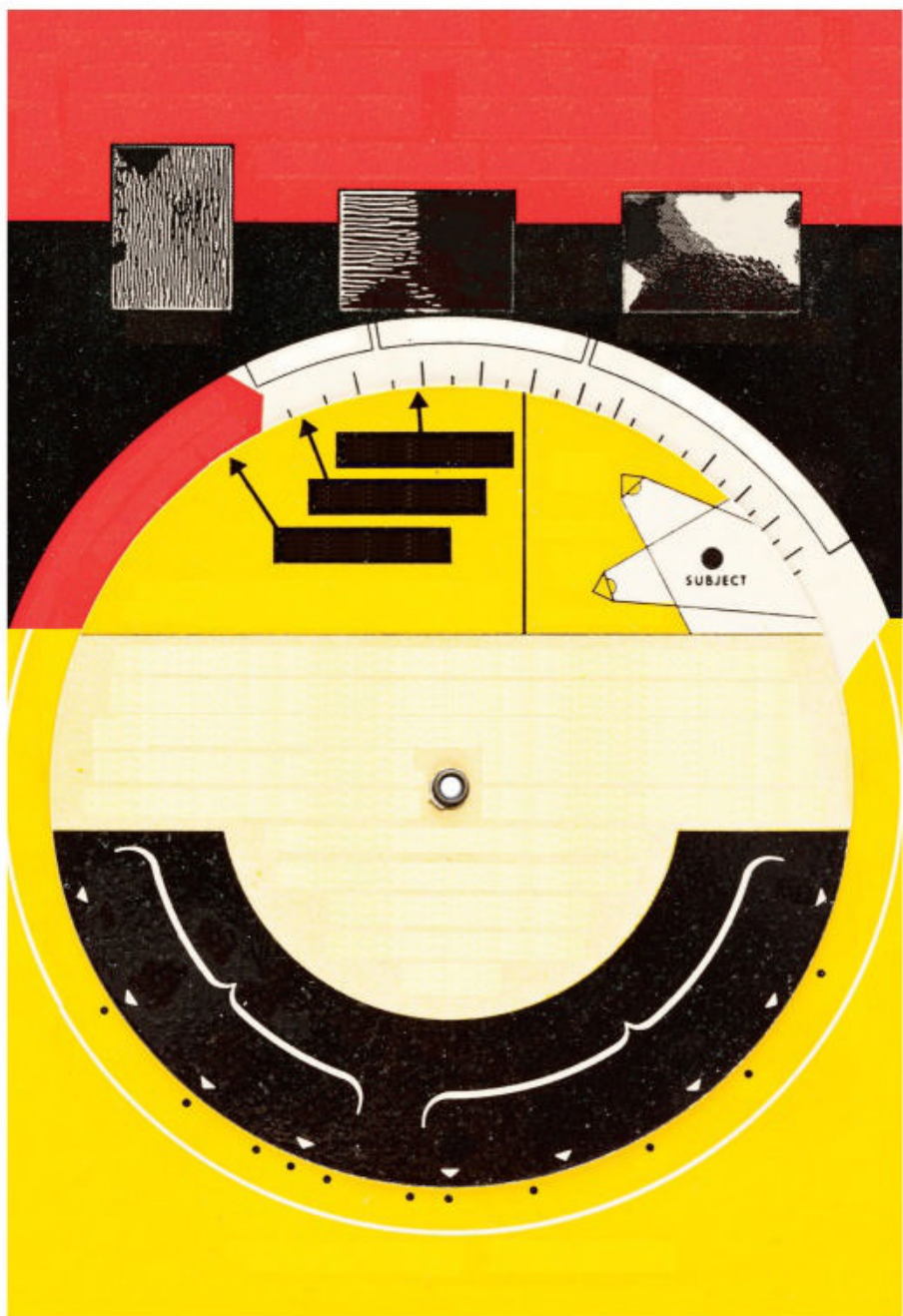
When products have relatively low value, companies—even very big ones—may need to find partners to make circularity work. Adidas, as noted earlier, provides one example. Its archival Nike also works with partners: Nike Grind takes used athletic shoes and recycles them into materials for entirely new products, such as AstroTurf's playing fields and Future Foam's carpet padding. We see similar initiatives in other industries, from consumer goods to electronics.

Products in this quadrant include many small high-tech devices, such as smartphones, which have a lot of highly integrated components, toxic materials that are difficult to extract, and very short life cycles. These products typically

have busy secondary markets, which is positive from an overall environmental perspective but impedes original manufacturers' access to them.

That is less a problem for the main manufacturers of high-tech consumer electronics. They often become the anchors in an industry ecosystem that creates exit barriers for device owners, thus lowering access barriers for the manufacturers. Apple is perhaps the definitive example. Customers buy, repair, and trade in their devices at Apple's own retail outlets, and their activity on those devices generates data that Apple owns. Of course, iPhones and iPads have an active secondary market, which normally would limit the company's recovery of them—but the speedy rollout of next-generation products and trade-in rebates incentivize consumers to relinquish their old Apple devices in exchange for discounted upgrades.

The easy access afforded by the dynamics of their ecosystems enables large-device manufacturers to invest heavily in DFR as their pathway to circularity. In 2018 Apple introduced Daisy, a robot capable of disassembling up to 200 iPhones an



hour to recover valuable materials such as cobalt, tin, and aluminum for use in brand-new phone components.

Hard to access but easy to process. The top left quadrant includes products whose use makes them difficult to retrieve. Takeout food packaging, for example, may contain easily recyclable materials but very often winds up in landfills because of the food residue on it, which is costly to remove. Here the strategy should be DFR, with a focus on the recovery infrastructure. The solution devised by the Australian food-packaging company BioPak was to introduce not only fully compostable packaging but also a composting service extending to more than 2,000 postal codes across Australia and New Zealand, in partnership with local waste-management businesses. Customers can toss compostable packaging together with food scraps directly into an organic-waste bin for collection. BioPak claims that 660 tons of waste have been diverted from landfills as a result of the service.

As embedded value increases, secondary markets tend to appear; these can make access to products more difficult

for the original manufacturer. RPO gets around the access problem, but it often proves challenging, even for companies whose products may seem well suited to an RPO strategy. One washing-machine producer we worked with abandoned its plans to offer a leasing option because of the expense of retrieving and transporting used machines to a company facility for remanufacture and reconditioning. Companies in a similar position often use traditional purchase plus a comprehensive service guarantee to extend product life.

The greater the embedded value, the more common are PLE and RPO combinations, because RPO both facilitates access to parts that would be extremely costly to rebuild from scratch and promotes consumer trust, thereby improving participation in trade-in and remanufacturing programs.

Caterpillar, the heavy-equipment company, provides multiple PLE options. Its Cat Reman program offers “same as new” parts and components over time, with an eye to extending the on-site life of each piece of equipment sold. Cat Certified Rebuild is a service whereby customers may



SUSTAINABILITY



High-value products that are easy to access and to process are ideal for circularity: They require no significant business model change.

return equipment at the end of its serviceable life for restoration to same-as-new condition. On CatUsed.com, customers can buy used equipment from licensed dealers, an excellent example of how a company can prevent high-value products from slipping beyond its reach via the secondary market. On the RPO side, Cat Financial provides various loan and lease options as alternatives to outright ownership. All these business models are supported in part by Caterpillar's ability to monitor the condition of its products remotely, using digital technology and AI, so that it can intervene as necessary—a practice known as installed base management.

Xerox's business model actually encompasses all three basic circularity strategies. Its pay-per-use model both discourages frivolous usage, thereby prolonging the life of the machine, and allows Xerox to retain ownership of its products. The modular design of its copiers' inner workings, most of which are standardized for all models, also furthers PLE. Across product generations, Xerox recycles, reuses, and refurbishes standard components while changing the core imaging technology—thereby keeping machines in action longer. The company complements these approaches with an ambitious material-recycling program (DFR): It claims to be reducing its virgin-resource inputs by hundreds of tons a year, and the internal components of its machines are made from 100% recycled plastics.

Easy to access and easy to process. Products in the lower left quadrant are usually items or components for which a well-oiled recycling infrastructure already exists, as it does for plastic bottles in Norway. Many commodity raw materials also fall into this category. According to the Aluminum Association of the United States, almost 75% of all commercial-variety aluminum ever produced remains in use today. In countries that lack a formal infrastructure for retrieving and returning the metal to manufacturers, enterprising citizens often fill the gap, collecting cans and other discarded aluminum items to exchange for small amounts of cash.

Appropriate circularity strategies for this category will be based on expanding and streamlining processes that already work well. In the United States, Real Alloy, a leading producer of secondary aluminum, is experimenting with minimizing the amount of the metal that is lost to industrial by-products. Norsk Hydro, based in Oslo, one of the largest aluminum companies in the world, is attempting to address the same

problem by reducing the quantity of by-products generated in the production process. Incremental DFR innovations like these can make recycling systems even more efficient and profitable for companies.

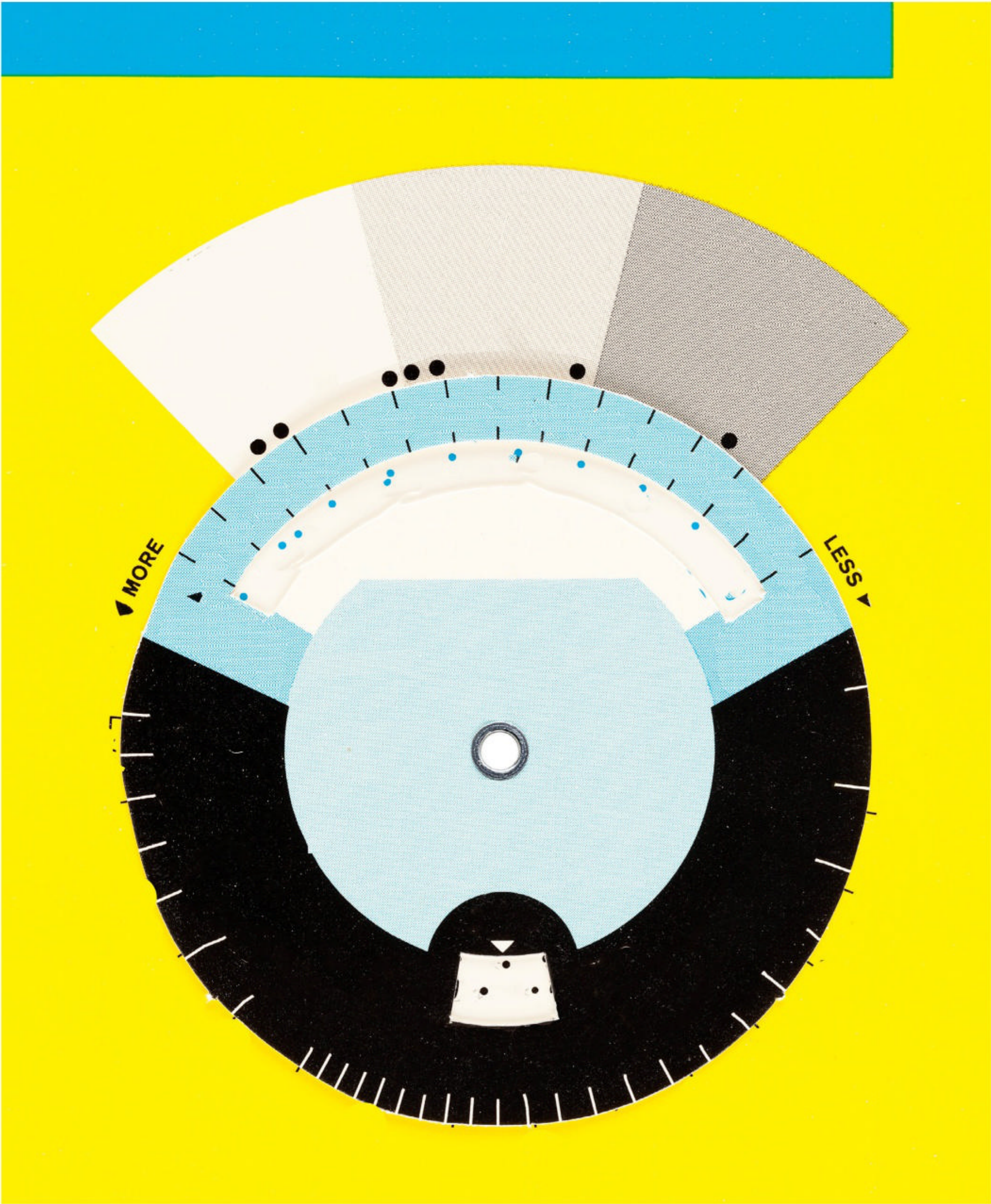
High-value products that are easy both to access and to process are ideal for circularity, because they require neither a significant business model change nor efforts to facilitate material recovery. This category includes relatively lightweight products whose value lies in their brand rather than in what they're used for or what they're made from. Here there is plenty of scope for companies not already in the circular economy to contemplate entering it.

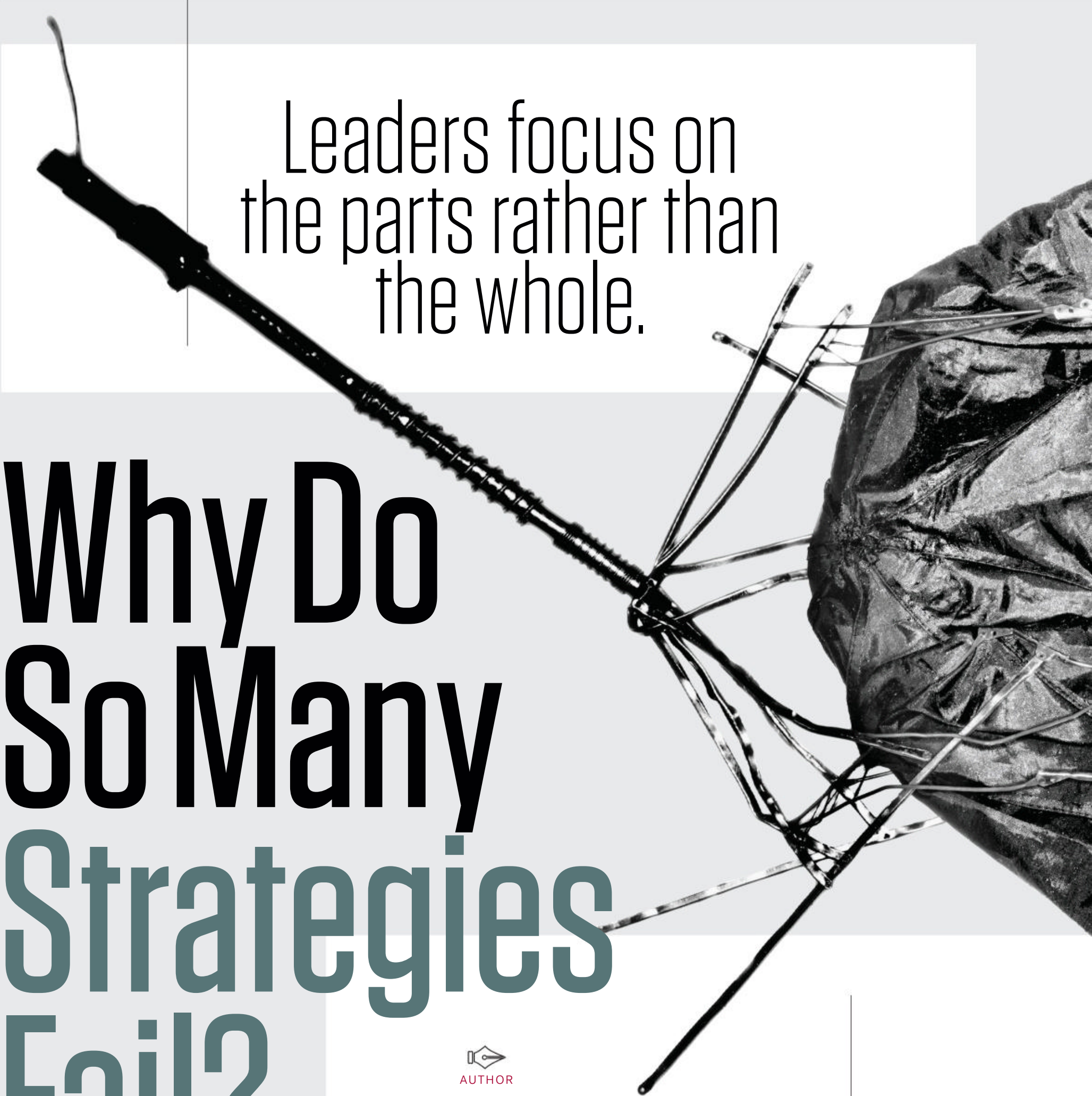
Patagonia, for example, has parlayed its famed sustainability principles into a used-clothing line for socially conscious consumers. Launched in 2017, the Patagonia Worn Wear initiative invites customers to send in their used Patagonia gear in return for store credit; the clothing is then repaired and resold on the Worn Wear website. Recently Patagonia Worn Wear added a line of hand-sewn clothing called ReCrafted, made from returned items the company considers beyond repair. The approach combines PLE with DFR. At this intersection "same as new" becomes a selling point, allowing Patagonia to tap operational efficiencies while burnishing its brand.

THE CIRCULARITY MATRIX does not guarantee access to the circular economy. Success or failure with circularity will continue to depend heavily on the receptivity of top leaders, their commitment to sustainable business values, and the willingness of managers at every organizational level to change and adapt. Moreover, your direction will alter as you acquire new capabilities and as new technologies and regulations remove past constraints or impose new ones. But the matrix can help you identify at any one time the strategy best suited to your company's resources, capabilities, and competitive environment. © **HBR Reprint R2104D**



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Leaders focus on
the parts rather than
the whole.

Why Do So Many Strategies Fail?



AUTHOR

David J. Collis

*Adjunct professor,
Harvard Business School*



STRATEGY



PHOTOGRAPHER
ILAN RUBIN

IDEA IN BRIEF

THE PROBLEM

Seemingly successful new companies struggle to turn a healthy profit. Established firms get disrupted by upstarts. Companies that excel at serving their markets can't adapt when customers' tastes shift.

THE ROOT CAUSE

All too often business leaders focus on one element of strategy—such as identifying a golden opportunity presented by new technologies or building advantages that competitors lack. But they either ignore the other components of strategy or don't recognize the components' interdependencies.

THE SOLUTION

Take a holistic approach and craft a strategy that encompasses carefully coordinated choices about the business model, the competitive position, implementation processes that adapt constantly to the changing environment, and the capabilities needed to win in the long term.



The CEO's job of crafting a strategy that creates and captures value—and keeps realizing it over time—has never been harder.



Often CEOs underestimate how much new technologies and business models can increase the value provided to customers.



STRATEGY

In today's volatile and uncertain world, corporations that have dominated their markets for decades can be blindsided by upstarts with radical new business models, miss the boat on emerging technologies, or be outflanked by competitors that are more adept at shaping consumer preferences. Young ventures can raise hundreds of millions of dollars, attract tens of millions of customers, and achieve lofty market valuations, only to collapse when they cannot figure out how to turn a profit or hold off imitators.

All too often those failures occur because the CEOs' approach to strategy isn't holistic. At many innovative new businesses, CEOs excel at identifying ways to generate value by addressing unmet customer needs—yet don't adequately analyze what it would take to *capture* a sufficient portion of that value. Or they get seduced by the initial success of their new business models, grow too fast, broaden their firms' scope too far, and neglect to invest in capabilities needed to sustain a long-term competitive advantage. Leaders of traditional corporations tend to make different mistakes: Some underestimate how much new technologies and business models can increase the value provided to customers. Others align their operations with their distinctive market position so tightly that they can't adapt when customers' tastes change. These leaders either ignore some components of what I call the *complete strategy landscape* or don't recognize the interdependencies among them.

Today a complete strategy has to encompass carefully coordinated choices about the business model with the highest potential to create value, the competitive position that captures as much of that value as possible, and the implementation processes that adapt constantly to the changing environment while building the capabilities needed to realize value over the long term. CEOs must develop an approach that integrates *all* those elements. To do that, they have to take the following actions:

Identify opportunities. This involves continually taking stock of what's happening in the outside world—developments in technology, demographics, culture, geopolitics, disease, and so on that are the current “hot topics.” These changes and trends open up possibilities for firms to exploit. The Covid-19 pandemic, for example, has sped the growth of many opportunities in areas from telemedicine and online education to home delivery services.

Define the best way to tap a given opportunity. To translate an opportunity into strategy, CEOs need to develop a business model that maximizes the potential value of their offering. The model should describe the “job to be done” for customers, which affects their willingness to pay for the product or service and the size of its possible market. The model should also spell out the configuration of the assets—technology, distribution channels, and so on—that will be used to produce and deliver the offering (and that determine the cost of doing so), and the monetization method, or how all this will be paid for. The model will also suggest how the value produced might be distributed among the players pursuing it (such as whether a few winners will reap the lion's share because of scale economies or network effects) and key aspects of possible strategies (such as whether being a first mover is important).

Figure out how to capture the value generated in the near term. This requires designing a strong competitive position. To do that the CEO has to assess three things. The first is the *industry's attractiveness*: Regardless of the value created, an industry will be attractive only if its structure allows participants to earn decent returns. (One of the contributions of Michael Porter's five forces framework was its insight that not all industries are created equal.) The second is *competitive positioning*. Identifying a unique value proposition for a defined customer group and a distinctive configuration of activities is still the way to build an advantage that allows you to outperform the industry's average rate of return—even when others pursue the same business model. (See “Can You Say What Your Strategy Is?” HBR, April 2008.) The third is *competitive interaction*: To assess the sustainability of any advantage, you must predict how interactions among rivals will play out. Here, behavioral and game theory approaches can be helpful.

Realize value over time. To keep capturing value, a firm needs to constantly adapt how it implements its strategy—adjusting its activities and building new capabilities as the external environment changes. This typically does *not* mean the CEO has to reformulate the entire strategy; it's more about making incremental changes to respond to new realities.

Build a foundation for long-term success. The firm's strategic choices and its interaction with competitors



STRATEGY

ultimately determine its financial performance and, critically, the resources it has to build assets and capabilities that support future moves.

Developing strategy across the complete landscape isn't a linear process; it should be continuous and iterative. Good performance will allow a firm to refresh and expand its skills and resources, which in turn will enable it to search for new opportunities and respond to external change with new strategic choices.

THE INCUMBENT'S MISTAKE

CEOs of established companies often pay too much attention to defining how their firms will capture value and too little to new ways to create value and how firms' activities and capabilities need to evolve over time. One reason is that approaches focusing on capture (like the five forces) have been very successful in long-established and stable industries and as a result have become ingrained in the strategy process. But CEOs of mature companies should ask themselves, When did our annual strategy process last generate a truly breakthrough idea, like ride-sharing or mobile banking? When did it allow us to become the "disruptive" innovator?

Look at the list of the most valuable companies in the United States, and you'll see that discovering and exploiting new business models to satisfy previously unmet, unexpressed, or even unknown customer needs is where the action has been in recent years. (See the exhibit "Winning with a New Business Model.") Those companies didn't collectively create trillions of dollars in value by outpositioning their rivals. When they were founded, they didn't have rivals. Indeed, the kind of businesses they started didn't exist previously.

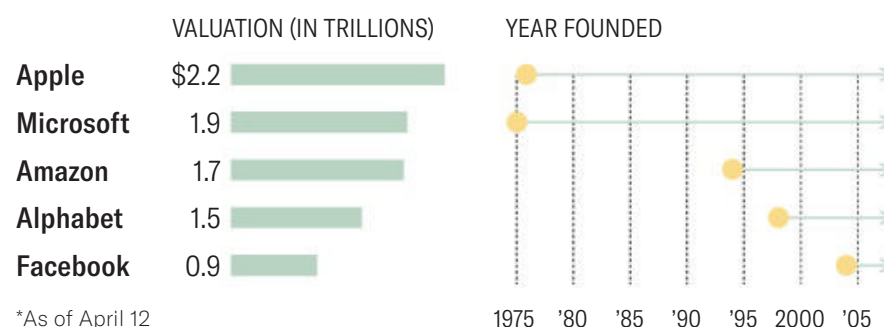
The good news for leaders of incumbent companies is that the emergence of new approaches doesn't have to doom their enterprises. Indeed, if they take a holistic perspective on strategy, they may discover that those business models present attractive opportunities because they create more value.

For example, would you rather make a onetime sale of a physical product or build a long-term client relationship and deliver tailored solutions that generate more value for the customer and potentially much more profit for you? As some old-line companies have discovered, the latter is the

Winning with a New Business Model

The most valuable companies in America all launched brand-new business models that met previously unfulfilled or unidentified customer needs.

Largest U.S. companies by market cap, 2021*



Source: Yahoo Finance

opportunity that new digital business models offer firms that can effectively leverage data and analytics. Komatsu now offers subscriptions to its Smart Construction platform, which coordinates all the activities of a construction site, including drone surveys, dumptruck scheduling, and the operation of autonomous earthmoving equipment. The platform cuts construction projects' entire costs by well over 15%—creating far more value than the revenue from the sale of bulldozers, which was all that was available in Komatsu's previous model. In a somewhat similar fashion, Siemens uses artificial intelligence to predict, and so prevent, maintenance issues on its trains. The improvement in uptime performance allows it to switch to performance-based contracts for rail service that bring in thousands of dollars a day, rather than just the initial price of a train.

No incumbent should respond to every new business model—that would simply be playing whack-a-mole. Instead, a firm must develop a strategic approach to identifying the value-creation potential of models and then determine whether to pursue any new ones by predicting the outcome of competition among alternative models.

By using available tools, strategists could have foreseen, for example, that video on demand (streaming) would replace Netflix's original mail-order delivery of DVDs and Blockbuster's old-fashioned video stores. The superiority of the value proposition for the job to be done for the customer, which was "delivering personal video entertainment," suggests the absolute dominance of streaming. (See the exhibit "Why Streaming Video Beat Rival Models.") An examination of the purchase criteria you might consider—convenience, the ability to make an impulse purchase, access to recent best sellers, a large back catalog—reveals that video on demand serves customers better than either of the earlier business



CEOs of mature companies should ask themselves, When did our annual strategy process last generate a truly breakthrough idea, like ride-sharing or mobile banking?

models. If that weren't enough, the cost of delivering movies and TV shows over the internet is vastly lower than doing so via physical stores or the mail. Considering those advantages, it's no wonder that almost everyone is now paying monthly subscription fees to streaming services.

In contrast, a similar analysis suggests that Amazon's online business model, which consists of a retail website, a limited number of fulfillment centers, and fleets of delivery trucks, will never fully displace Walmart's longtime business model, which features traditional brick-and-mortar stores supplied by a national network of distribution centers. When you compare how well each does the job to be done, you see that Amazon's model is good at providing home delivery for a very broad range (hundreds of millions) of items, while Walmart's is better for immediate availability at low cost of a more limited number (a few hundred thousand). Each business model has a distinctive proposition that appeals to different customers on different occasions for different products. And a comparison of the cost positions of their asset bases shows that Walmart's logistics system is low cost for everyday items that consumers pick up in stores in rural or suburban locations, while Amazon's is more efficient for long-tail items and home delivery in densely populated geographies. Neither business model universally dominates the other. Both will survive, which is why each company is rushing to replicate the other's asset base, with Amazon buying Whole Foods, and Walmart spending billions of dollars to expand online and add fulfillment centers.

THE ENTREPRENEUR'S MISTAKE

In their excitement to exploit new opportunities they spotted before anyone else, many entrepreneurs fail to see that the more value their business model creates, the more competition they're likely to face. Netflix has been copied by dozens of credible companies, including Disney, and Casper—the innovator of the bed-in-a-box business model—has 175 competitors. Seduced by their immediate success, entrepreneurs often commit to an investment that never pays a worthwhile return. WhatsApp, for example, now faces numerous free-messaging rivals, but its owner, Facebook, has yet to monetize any of its 2 billion users.

When a firm is pursuing a successful new business model against intense competition, it's vital to apply the three value-capture frameworks in the middle of the landscape—industry attractiveness, competitive positioning, and competitive interaction. Consider a business model that investors are now enamored with: electric vehicles. In early April, Tesla had the highest market capitalization of any car company ever and the sixth-highest market cap in the United States (hitting \$672 billion on April 12)—more than the combined market caps of Ford, GM, Toyota, Daimler, and Volkswagen. Tesla has certainly identified and exploited an appealing business model, but it's unclear whether it will ever make a decent return on its investment. Why, if the business model creates so much value for customers? The answer lies in the effect that a promising new business model has on other parts of the strategy landscape.

Why Streaming Video Beat Rival Models

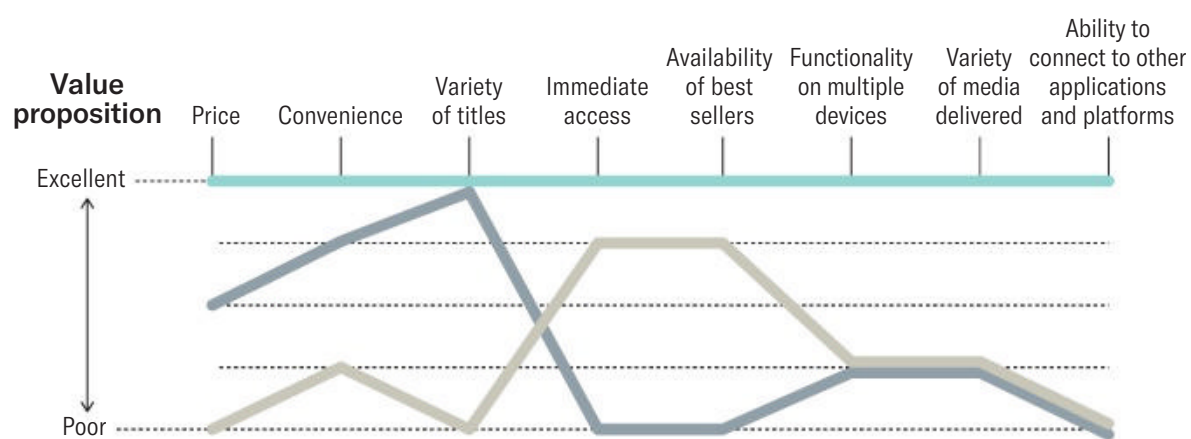
Its value proposition was much stronger than the propositions of video stores and DVD-by-mail on almost every dimension, and its costs were also far lower.

Cost of delivering a video to a customer, 2007

STREAMING (IT infrastructure)
\$0.25

DVD-BY-MAIL (Mail-order delivery and distribution center)
\$1.25

VIDEO STORES (Physical stores and labor)
\$2.24





STRATEGY

To capture sufficient value, a firm has to be in an industry with an attractive structure and possess a sustainable competitive advantage. Unfortunately, the electric vehicle industry of the future will look remarkably similar to the auto industry of the present. Every carmaker in the world and every company with an interest in electric motors is entering the business. (Even the vacuum cleaner company Dyson invested half a billion dollars in a car design and a plant before realizing the error of its ways.) Given that barriers to entry are low with electric vehicles because of the simplicity of their design and their few (relative to an internal combustion engine) parts, even more companies are likely to jump in. In fact, the quicker the adoption of electric vehicles around the world is, the faster competitors will enter the race and the more rapidly the attractiveness of the industry will deteriorate.

Nor is it clear that Tesla has a sustainable competitive advantage. It might have a brand aura and a performance edge today, but its design and engineering expertise will soon be challenged by Porsche and other performance manufacturers, like BMW and Mercedes. Moreover, it's well behind other auto companies in cumulative production experience and overall scale, so its manufacturing cost position is unenviable. Indeed, the need for scale has led Tesla to add more models—it's now producing seven—which increases its total output to about 500,000 a year but creates inefficiencies.

Tesla also appears to be finding it challenging to realize value through the effective execution of its strategy. The automaker has had enormous quality problems in the United States. (*Consumer Reports* no longer recommends the Models S and Y.) If you simply cannot achieve operational efficiencies, you are condemned to fail, regardless of how exciting your business model is.

IMPLEMENTATION: THE KEY TO REALIZING VALUE OVER TIME

Identifying a viable business model and a distinctive competitive position that captures value today doesn't ensure success when companies confront ever-changing opportunities. To realize value over the long term, firms have to balance agility and control, by giving project teams the authority to experiment with new configurations while consistently investing in the capabilities needed for the future.







STRATEGY

As I noted earlier, the challenge for established companies often is not designing a completely new competitive position but supporting entrepreneurial activity that drives incremental but continual improvement. Indeed, most managers' involvement in strategy today is with projects that adapt operational activities rather than a onetime change-management process to execute a different strategy.

Consider a hamburger chain that is successfully pursuing a low-cost strategy targeted at young men. Mobile technology is the hot topic presenting an opportunity—one that is even bigger now that the Covid-19 pandemic has caused indoor dining to plunge and takeout to soar. The restaurant chain's desire to capitalize on it unleashes a flood of proposals that would affect nearly every activity in the firm. Do we redesign the menu so that items can be prepared in advance? Should we change the restaurant layout to accommodate a separate pickup point? Do we need to relocate stores in anticipation of new customer traffic patterns?

It's in developing plans to realign the firm's activities that strategy plays out every day—not in its initial grand design. Tactical though they might appear, these adaptations are

fundamentally strategic because they cut across functions inside the firm and require systemic change. Yet too many CEOs give them short shrift.

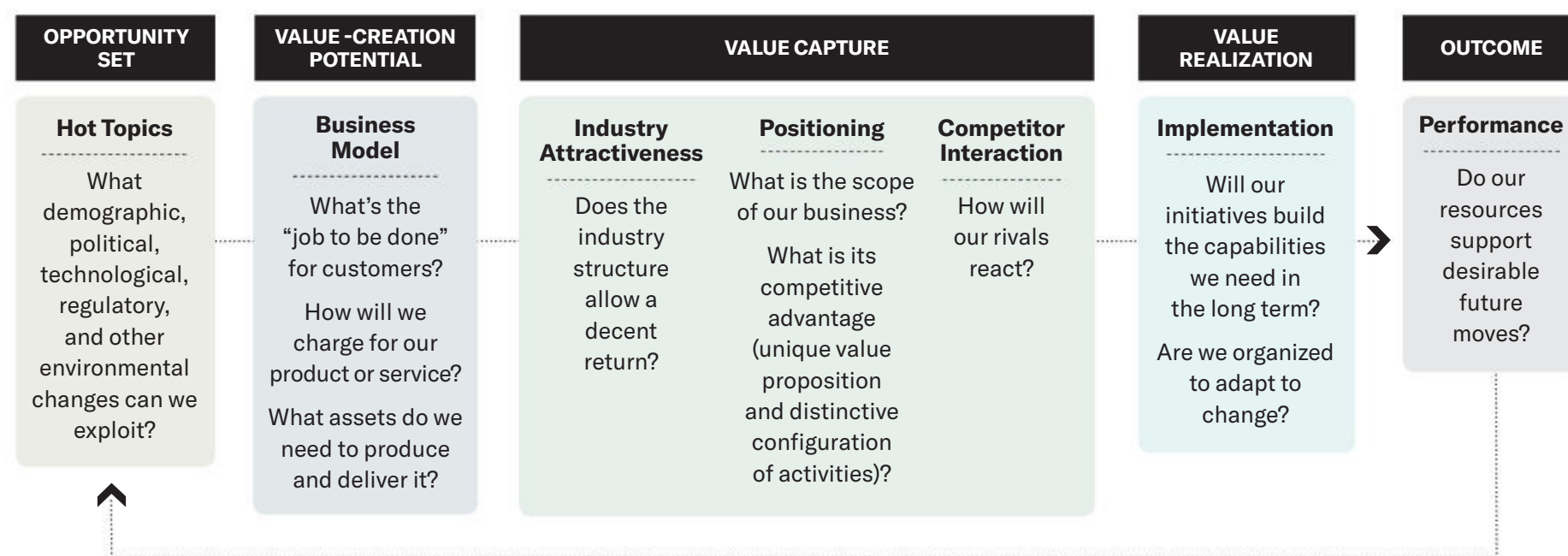
Conversely, entrepreneurs can fail by too frequently adjusting their product-market fit in response to the latest consumer test, which undermines their ability to build the organizational capabilities required for long-term success. Nasty Gal, for example, was an early mover in online fashion retailing but went bankrupt after it pursued too many expansion efforts, overstretching an organization that lacked effective leadership and weakening the attachment customers had to the brand.

The solution for both established and young companies is a strategic approach that champions experimentation within bounds clearly established by the CEO. Each exploratory project should have a clear, objective process, a timetable, metrics, milestones that trigger cutoff decisions, and after-action reviews. However, CEOs cannot and should not get involved in projects' minutiae; that would simply be overwhelming.

Control is maintained first through adherence to a well-articulated and well-communicated "classic" strategy that

The Complete Strategy Landscape

Strategy involves more than finding an attractive industry or defining a competitive advantage. It requires an aligned set of decisions about which opportunities to pursue, how much value the firm can create and capture, and how to keep realizing value and build a foundation for long-term success.





Many entrepreneurs fail to see that the more value their business model creates, the more competition they're likely to face.

clarifies how the firm will outperform competitors pursuing the same business model. That will set limits that the organization won't go beyond, helping ensure that any solution a project team proposes will fit within the chosen value proposition, configuration of activities, and business scope. (See "Lean Strategy," HBR, March 2016.)

Hidden in this part of the strategy landscape is a source of competitive advantage that capitalizes on the interdependency of its elements. Strategic adaptation must become an ongoing, iterative process of hypothesis, experimentation, learning, and action. The faster a firm cycles through the process, the more effective it will be in the marketplace. Indeed, as George Stalk Jr. and Sam Stewart of the Boston Consulting Group have noted, the more a firm can compress the cycle time, the stronger an advantage it will possess.

The second control mechanism lies in selection of the tactical projects pursued. Here, the CEO must be able to see through the fog of immediate pressures and identify and support a limited number of long-term initiatives that will guide the individual experiments. Typically, these become "corporate" initiatives, even if in smaller firms nothing that fancy is ever announced. They're not objectives, since they lack a time frame and specific metrics, but broad themes that govern the sequence, selection, and design of multiple projects. They must be injected into every ongoing change program in the firm that cuts across silos and boundaries.

These broad initiatives should be manageable in number—probably seven or fewer—so that each can be adequately funded, monitored, and continually promoted. They cannot change regularly; if that happens, they'll be viewed as "flavors of the month" that can be ignored or met with lip service.

These higher-level strategic programs must be owned and championed by the CEO. Only the firm's top leader has the perspective and authority to ensure there's enough investment in building the capabilities they'll require. One example is the "digitalization" initiative at Siemens that Joe Kaeser spearheaded. Another is the Creating the New initiative at Adidas, which Herbert Hainer started and his successor, Kasper Rørsted, is continuing; it focuses on speed (in order to offer consumers "exactly the products they want to buy whenever, wherever, and however they want to buy"), key strategic cities (to spot emerging trends), and open-source innovation (collaborating with third parties in

industry, sports, and entertainment). A third example is Bob Iger's commitment to invest in quality branded franchises, technology, and globalization during his 14 years at the helm of Walt Disney. Each CEO took personal responsibility for shepherding progress in the chosen areas.

It is the outcome of these "must-win" battles that determines long-run success. Though these broad themes or initiatives are not corporate strategies—as they are often mistakenly called—their pursuit is an essential part of a complete strategy.

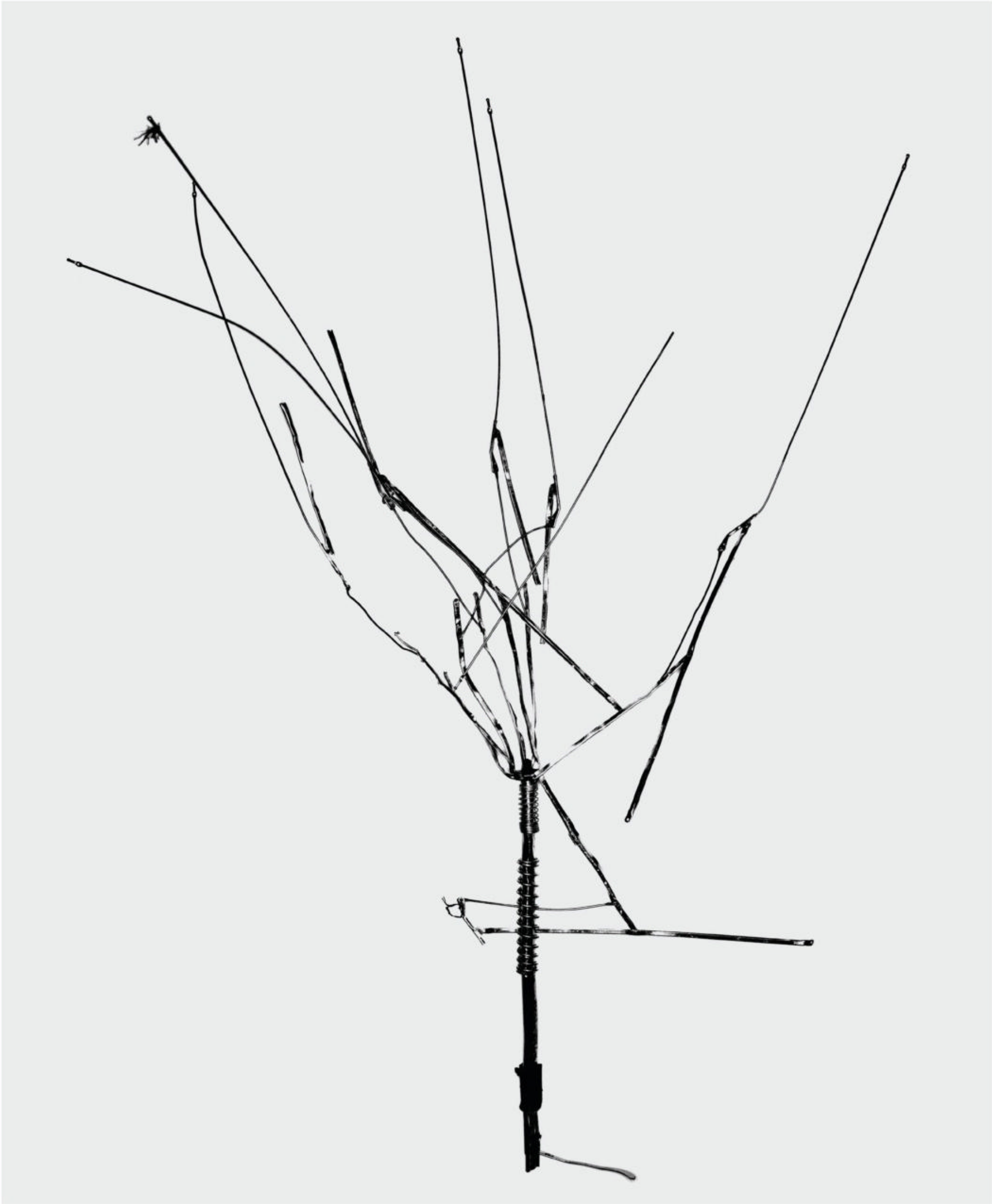
THE NEED FOR INTEGRATION ACROSS THE LANDSCAPE

A vivid example of a firm that has integrated its strategy across the complete landscape is Edward Jones, a St. Louis-based brokerage firm I have been advising for 20 years. In 2020, under the leadership of Penny Pennington, it embarked on a plan to increase the value it created for clients. The plan is being implemented in a series of projects that revise many of the firm's business practices. However, none of them will alter the firm's current customer scope or competitive positioning: delivering trusted personal guidance to conservative individuals who prefer to delegate their financial decisions to financial advisers located in a national network of offices.

Edward Jones has been performing extraordinarily well, with profitability that's above average for its industry. It has the most brokers of any firm in North America and nearly \$1.5 trillion in assets under management, and it consistently makes *Fortune's* 100 Best Companies to Work For list. So why did Pennington and her leadership team decide that it needed to undergo dramatic change?

The problem is not with the firm's positioning. The target customers—conservative people who want a trusted adviser to help them manage their money and provide guidance on their financial future—have not gone away. If anything, information overload and increasing time demands have only increased how many consumers (traditionally 23% of the market) value this service. Nor is the firm's value proposition any less important to those customers: the security and peace of mind that come from knowing your investments are in safe hands.

The issue isn't competitive imitation either. No rival company has been able to replicate the firm's 17,000 offices throughout North America.





Strategic adaptation must become an ongoing, iterative process of hypothesis, experimentation, learning, and action.



STRATEGY

The problem is that the attractiveness of traditional portfolio management has been eroded by environmental changes: the rise of fintech companies, like Robinhood, with new business models enabled by new technologies; a demographic shift as Baby Boomers begin spending down their accumulated assets; new regulations requiring more attention to smaller accounts; and investor preferences for passive asset management. Those developments, and others, have reduced the perceived value of the services Edward Jones traditionally delivered. Today completing a transaction is free online. Portfolio allocation according to individual risk preferences costs 0.2% when offered by a robo-adviser. Index fund management fees are as low as 0%. As a result, simple portfolio management, while still incredibly useful for customers, doesn't provide enough value to allow brokers like Edward Jones to prosper.

The solution is not to alter the company's competitive position. If Edward Jones changed its customer scope by serving day traders, it would be positioned in the most price-competitive part of the market. If it altered its model of entrepreneurial advisers who are embedded in communities, it would lose its cooperative, client-interests-first culture. The best hope for escaping commoditization is to pursue business model innovation that creates more value and potentially monetizes it in ways other than just a commission on each transaction.

Edward Jones is therefore following the path that other professional services firms have taken and is shifting from a product, or "transactional," business model to a financial life "solutions" business model. Through a five-step process that begins with documenting individual goals, the firm now offers customized advice and solutions for lifelong needs, not just purchases of mutual funds or blue-chip stocks. Though this approach requires more-intense engagement with customers, it creates substantially more value for them.

In its efforts to successfully shift to the financial life solutions model, Edward Jones has identified must-win battles in several areas, including diversity (while about half of Generation Z is nonwhite, fewer than 15% of the firm's advisers belong to minority groups); intergenerational wealth transfer (an estimated \$40 trillion in assets will be inherited by Millennials); and multichannel distribution

(to effectively serve a full range of clients regardless of net worth and to complement in-person services with digital interactions). The firm has created teams, each of which works on part of a broader initiative—for instance, how to enter urban markets with a large minority population—to develop and test approaches addressing those challenges. Specific projects will come and go over time, but the focus on building capabilities required for long-term success will remain.

Notice that we need to look at the whole strategy landscape to understand the change under way at Edward Jones. First, new developments (in demographics, regulation, capital markets' performance, and so on) are throwing up novel threats and opportunities. Second, the reduction in value capture for the industry is undermining the old business model. Third, the business model itself now needs to be retooled to create more value even if the competitive positioning is unchanged. And fourth, the revisions will take place through projects that support broader strategic initiatives.

The most important lesson is that to craft a resilient strategy, companies of all sizes must integrate all the elements of the complete strategy landscape. While not disregarding how critical competitive positioning is to value capture, an effective strategy process must begin with a creative and open-ended discussion of the value potential of alternative business models and finish with an approach to execution that guides ongoing experimentation and operational adaptation while investing in underlying capabilities.

Strategy has always been about aligning the organization behind a clear direction. Today it must be broadened to become an integrated set of choices about the business model, competitive positioning, and capabilities required for long-term success. By managing the complete strategy landscape, CEOs of young ventures will greatly increase the odds that their firms won't crash and burn, and leaders of established companies will ensure that they continually renew themselves. ©

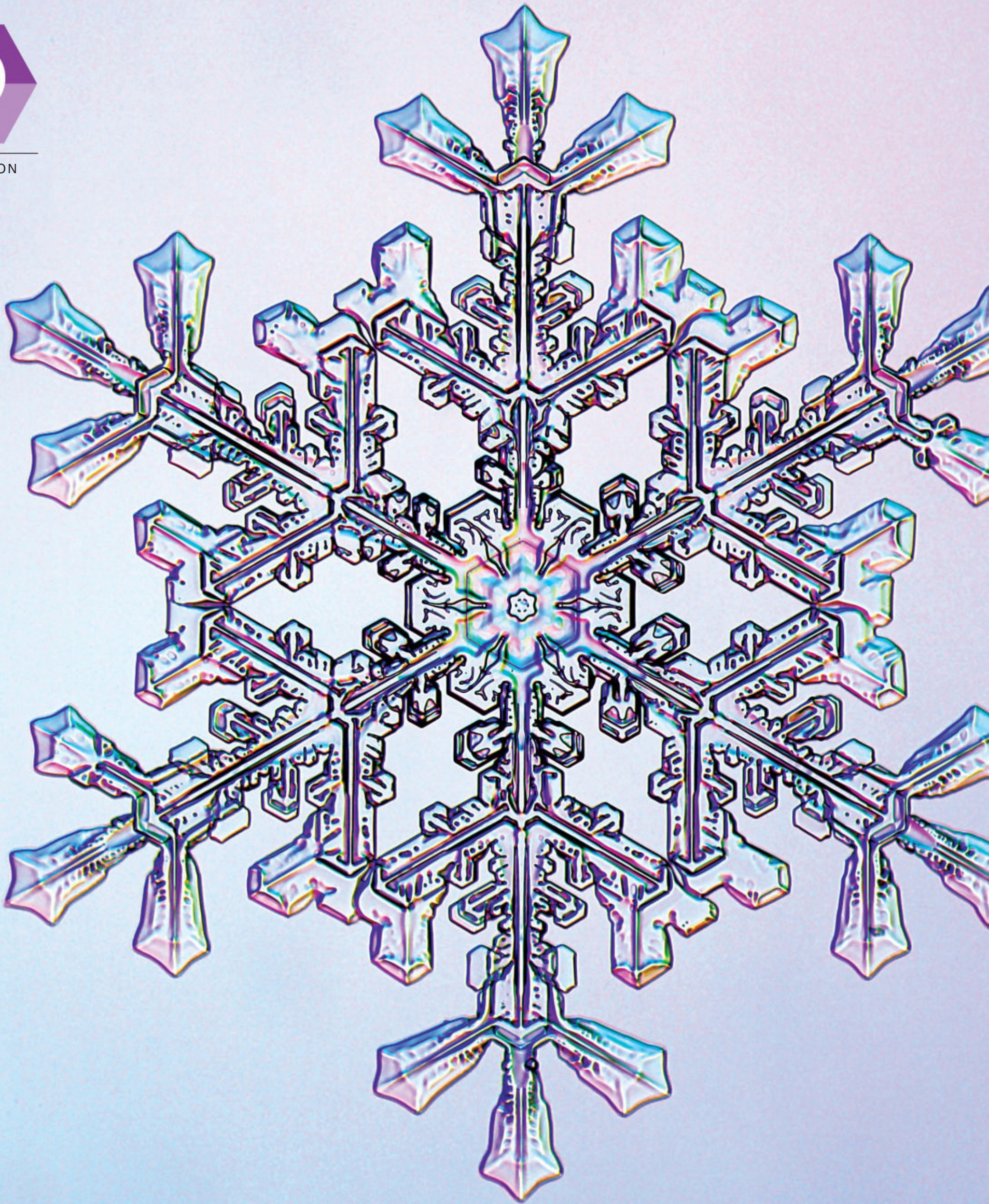
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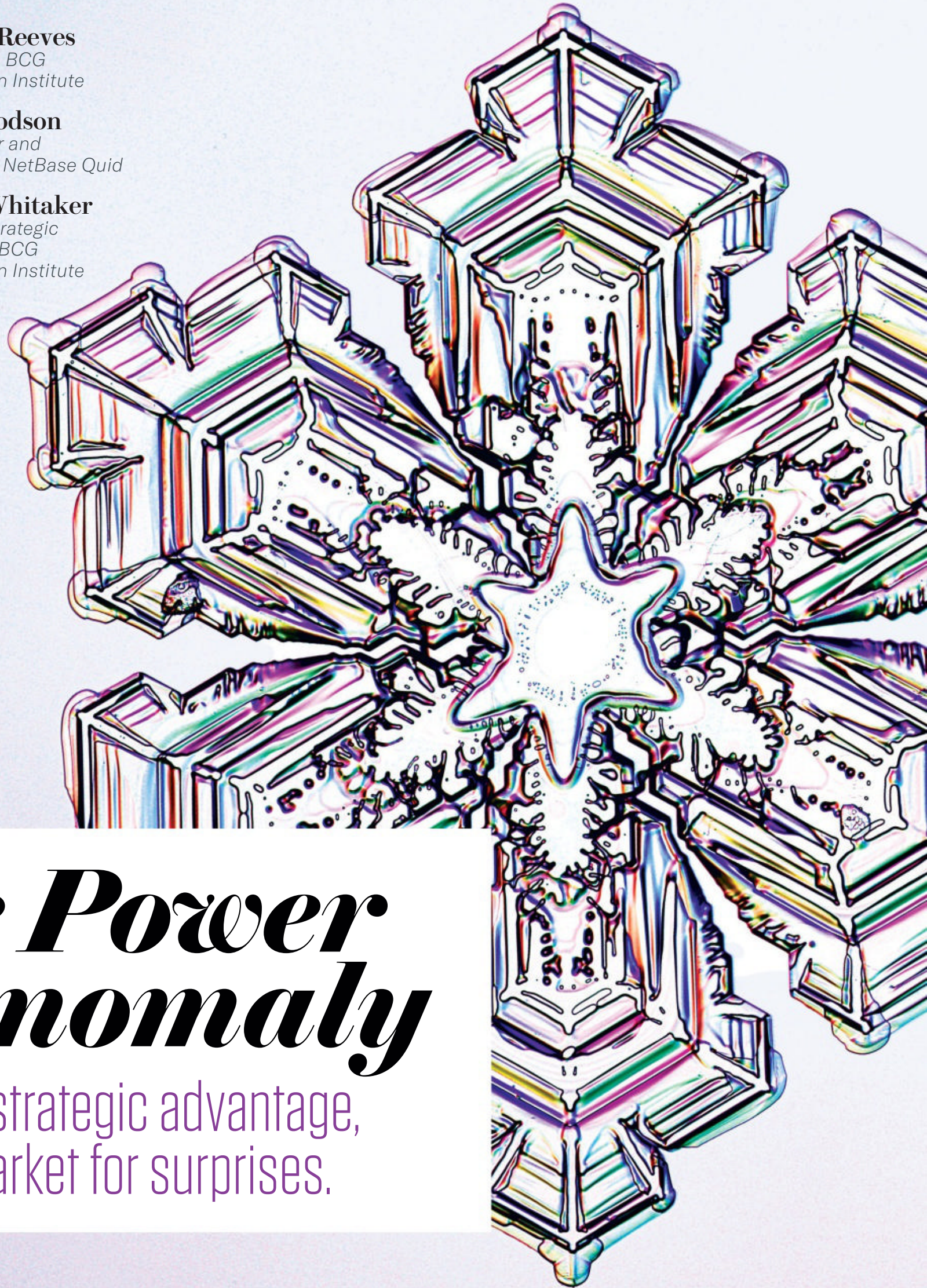




Martin Reeves
Chairman, BCG
Henderson Institute

Bob Goodson
Cofounder and
president, NetBase Quid

Kevin Whitaker
Head of strategic
analytics, BCG
Henderson Institute



The Power of Anomaly

To achieve strategic advantage,
scan the market for surprises.



PHOTOGRAPHER KENNETH LIBBRECHT

Harvard Business Review
July–August 2021



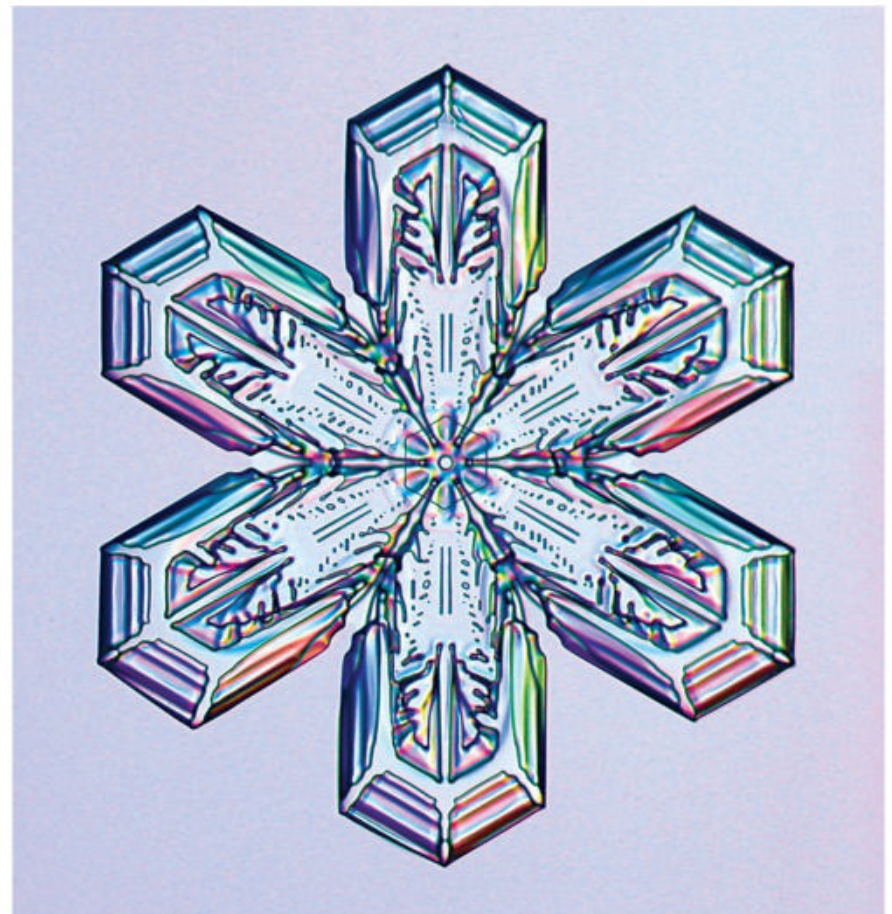
INNOVATION



IDENTIFYING THE NEXT BIG thing is often treated as an exercise in analyzing trends. But that's misleading. By the time a trend is established, any opportunities it presents have most likely already been captured by competitors. And although a company may need to reflect trends in its business plans, that can be more a matter of catching up with rivals than of gaining a competitive edge.

To take advantage of emerging trends, companies must identify them when they are embryonic—not purely speculative, but not yet named or widely known. At that stage the signs will be merely *anomalies*: weak signals that are in some way surprising but not entirely clear in scope or import. Most anomalies don't become meaningful trends, of course, but some do—and the businesses that identify and interpret them early will steal a march on the competition. Instagram's founders, for example, focused their initially multifunctional social networking app, originally called Burbn, on image sharing after they noticed an unusual amount of activity around that feature.

In the following pages we present a process for spotting anomalies that have the potential to drive a business, but it's more than mechanical: Anomaly-driven strategy requires being open to unexpected ideas that may overturn long-held assumptions. Only if you are willing to look at your business from the outside in, question your existing models, and embrace ambiguity will you be able to identify the diamonds hiding in the data. Let's look at what that process involves.





ABOUT THE ART

Kenneth Libbrecht, a professor of physics at Caltech, studies the molecular dynamics of crystal growth and the physics of snowflakes. He photographs the fascinating variety of snowflake shapes and patterns and grows his own snow crystals with designs not found in nature.

AN OPEN MIND

We usually can't see what we aren't looking for, so anomalies are often missed. If we do see them, we may ignore them, because people and organizations are predisposed to confirmation bias, focusing on what aligns with their mental models rather than what violates them. Indeed, the word "anomaly" is most often used to dismiss a data point as unrepresentative and irrelevant. And even if we *don't* ignore anomalies, we may not try to interpret or explore them. So managers must be prepared to:

Take an external perspective. As companies grow, they often become more introverted. Managers disproportionately focus on internal processes rather than changes in the outside world. A company can be thought of like a sphere—as it expands, its internal volume increases faster than its external surface area does, driving internal focus by default. But anomalies that may signal new trends will appear in the external world. As Intel's former CEO Andy Grove famously said, "When spring comes, snow melts first at the periphery, because that is where it is most exposed."

Thus managers need to adopt an external perspective. That involves understanding the behaviors not only of average customers but also of atypical customers, lapsed customers, noncustomers, and the broader consumer landscape. It involves monitoring both established competitors and new challengers that may have different models or come from entirely different industries. And it involves continually scanning for changes in the social, political, and technological context that might shape the emergence of new needs.

Companies can get a better sense of the external world by encouraging managers and employees to spend more time engaging directly with potential customers. They can also access data from new sources, such as social media text, to discern shifts in consumer sentiment or behavior. They can tap into new data-collection capabilities, such as sensors or customer-facing digital platforms, often by collaborating in multicompany ecosystems. And they can examine change on multiple timescales—from very short ones, where new deviations can be observed, to very long ones, which reveal important but slower-moving shifts.

Challenge assumptions and mental models. Gaining new information is not enough to spot potential trends. We base our mental models of the world on what we can sense, but those models are not reality—they are just a representation of it. And they don't automatically change when reality changes. We can easily get stuck in them and thus discount or ignore new information.

For example, when given an opportunity to buy the patents for the telephone shortly after it was invented, William Orton, the president of Western Union (then the dominant telegraph company), reportedly dismissed the device as an "electrical toy." The view prevailing at the time was that the telephone would be used merely for short updates—a purpose for which the telegraph would remain more practical. Orton's mental model didn't shift to allow for new possibilities that the telephone would unlock, such as extended conversations at a distance, until a couple of years later, when the trend of telephone adoption had become obvious to all.

Identifying anomalies involves more than just having access to better new signals; it requires an ability to imagine

IDEA IN BRIEF

THE PROBLEM

Trends are well established by the time most companies pick up on them, and opportunities have been seized by competitors.

WHY IT HAPPENS

Companies often don't recognize weak early signals that a trend is emerging because managers are internally focused, unwilling to challenge their assumptions, and uncomfortable with ambiguity.

THE SOLUTION

Managers can employ new analytics tools to surface anomalies and identify the ones that offer opportunities. They should name and build a convincing narrative around those opportunities and be prepared to quickly test emerging trends and shape them in their favor.



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the potential implications of those signals. We must recognize that models are just that—and then be flexible about updating them over time. That means questioning assumptions and asking what if the reality were otherwise; adopting multiple, perhaps even contradictory, models in order to test various angles; and thinking in analogies to widen the range of models available to us.

Embrace ambiguity. Anomalies usually don't point to obvious actions. They fall into gaps that are not well explained by current models, and the data supporting them may not be clear-cut. Established businesses often have difficulty embracing this kind of ambiguity, as is demonstrated by the adage “What gets measured gets managed.”

But ambiguity creates opportunity. If a signal were clear, everyone would see and act on it, making it competitively neutral. As the military strategist Carl von Clausewitz wrote, “[Attempts] to equip the conduct of war with principles, rules, or even systems [that] considered only factors that could be mathematically calculated are objectionable... because they aim at fixed values. In war everything is uncertain and variable.” Similarly, to imagine and respond to trends before they are clear, leaders must act on uncertain and shifting information.

That requires an altered approach to evaluating and seizing opportunities. A common error by large businesses is to require that any new initiative be backed by unambiguous return-on-investment analysis showing a clear course of action leading to a quantified payoff. But given the uncertainty and “path dependency” (whereby what has occurred in the past persists because of resistance to change) of emerging trends, such an analysis is rarely possible. As the entrepreneur and author Steve Blank has said, such an exercise is “like a divide by zero problem.”

Leaders should be willing to evaluate nascent opportunities on other dimensions: Is there a compelling story you can tell in which an anomaly would become a big opportunity? Would the opportunity make strategic sense given your company's capabilities? How could new assumptions be tested? Companies cannot stay on top forever with their existing offerings alone, so sustaining success requires acting on fuzzy opportunities.

Let's now consider how managers can best leverage their open-mindedness.

THE ANOMALY-DRIVEN PROCESS

In a typical new-product-development process, market researchers comb through historical data, form multiple hypotheses, and check them through experimentation. That allows the researchers to identify a value proposition, which can then be developed and rolled out. The process may take many months.

Anomaly-driven innovation is very different. To begin with, market researchers don't necessarily start with any hypotheses, and the data is analyzed as soon as it is generated. The process is less about predicting the future from the past than about making sense of the immediate present and using it to imagine possible futures. As a result, the timescale compresses to weeks, not months. Typically the process involves four steps.

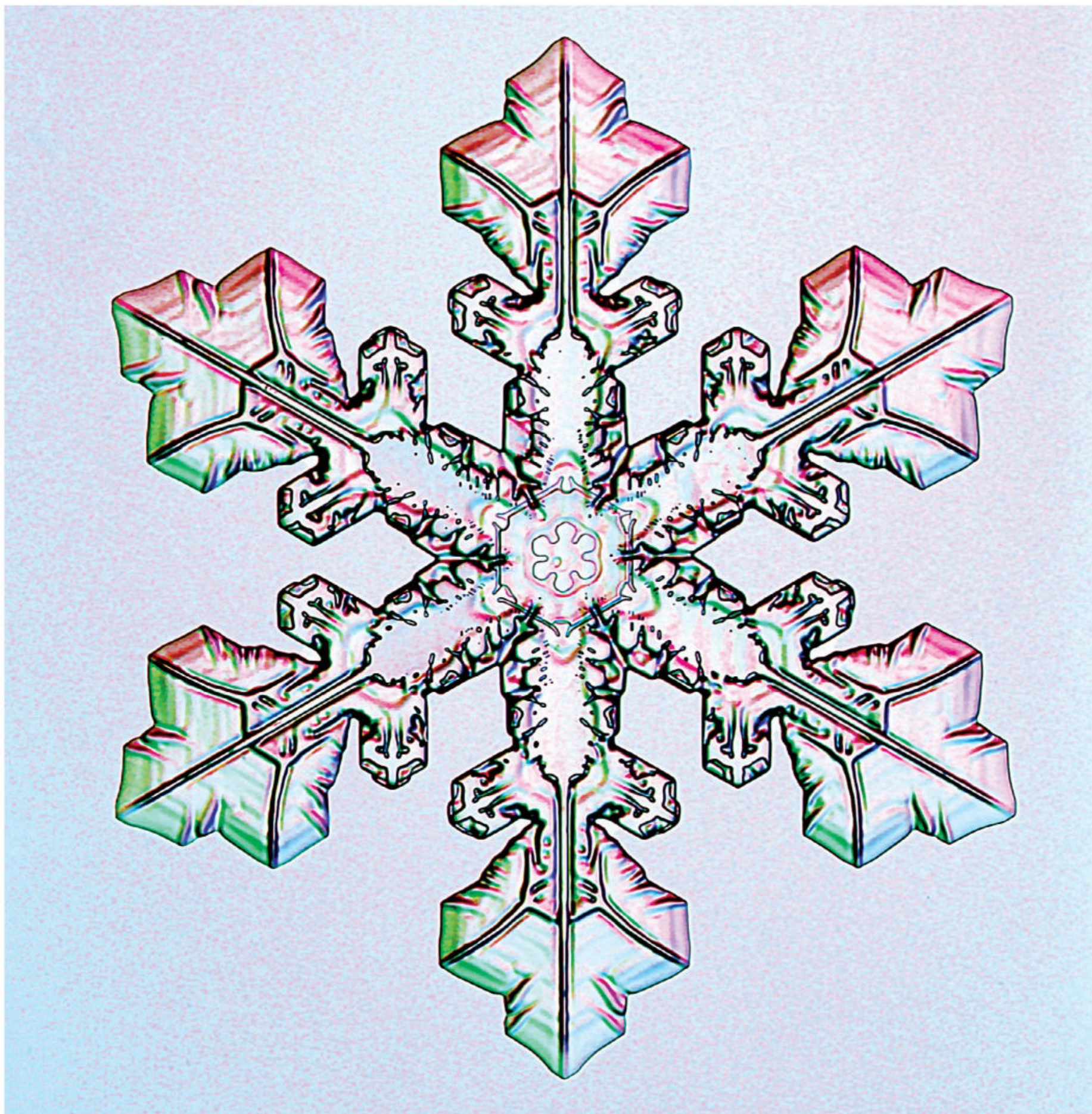
1 Analyze and visualize granular data. Because averages smooth out differences, anomalies are likely to emerge only from granular data sources—those that are harvested with great frequency, are de-averaged for specific geographies, or report individual transactions. But inspecting all data at such a granular level isn't feasible in large organizations, so the data must be structured in ways that allow anomalies to be visualized and investigated.

New analytical tools can identify the underlying structure of large data sets, allowing them to be interpreted without relying on averages and summary statistics. Data such as consumers' posts on social platforms or competitors' investment announcements can be analyzed with semantic clustering algorithms, making the underlying patterns of belief or behavior explicit and interpretable. To find the anomalies within these patterns, visualize the data and interrogate it to identify outliers and gaps. Which clusters display growing or changing characteristics over time?

2 Identify the anomalies that matter. Large data sets are likely to include lots of anomalies, not all of which will be meaningful. To decide which ones should be acted on, identify those that are most likely to indicate something about the future—and that tell you something you don't already know.

By definition, anomalies are generally small when they're spotted, but their potential can be assessed on three

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- ● Ambiguity creates opportunity. If a signal were clear, everyone would see and act on it, making it competitively neutral.
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INNOVATION

dimensions. (1) *Momentum*: Is the anomaly persistent over time? Is it growing rapidly? Do early adopters show passion for it? (2) *Robustness*: Can it be seen from different perspectives or in multiple data sources? Is it consistent with other shifts in the environment? (3) *Impact*: Does the anomaly point to opportunities to plug significant gaps in the landscape of current offerings? What might be the implications of it?

In 2000, two years after the founding of Google, the company was considering expanding beyond text links into new types of search when it noticed a significant anomaly: Searches for the green dress worn by Jennifer Lopez at the Grammy Awards broke the record for the most popular query ever. Google had already identified image search as a potential opportunity, but the enormous number of searches for the dress indicated just how much momentum and potential impact the not-yet-existent service had, persuading Google to make it a priority and launch it the next year.

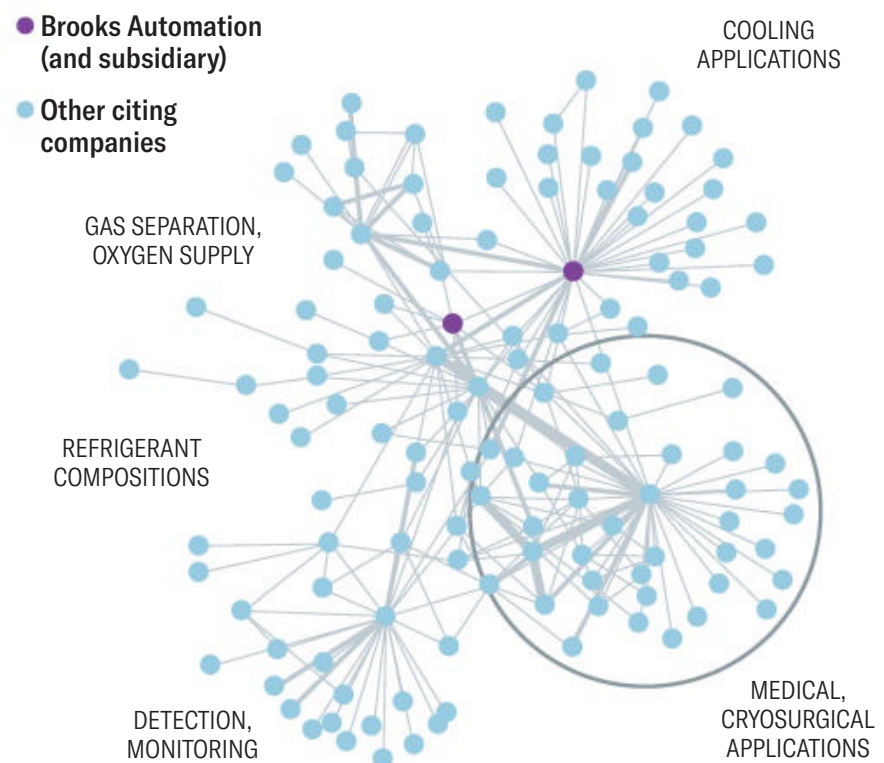
3 Give them a narrative and a name. The next step is to try to make sense of a promising anomaly by creating the story it would tell if it became a trend. This exercise helps in imagining futures, which can be tested against a broader knowledge of the changing environment. If it's compelling, such a narrative can help spread the idea through your organization, enabling others to see the opportunity or the threat.

To make sense of the narrative around an anomaly, ask yourself: What could be going on here? What could it lead to? What additional facts would be consistent with this story or challenge it? What is the belief underpinning this future that violates our existing beliefs? Is there a “missing piece” that could confirm or accelerate this story? What pattern of signals would validate it?

An especially powerful part of storytelling is *naming*, which allows an unlabeled thought in one person's mind to evolve into an idea that can be shared with a group. Names also help others in an organization understand and engage with new concepts by making brand-new ones (such as how the Apple Watch denotes a small, sleek computer on your wrist) feel more familiar, communicating a function (such as how an “automatic teller machine” withdraws money from banks), or capturing attention (“Amazon,” the name of the world's biggest river, signaled the company's ambitions for growth and breadth).

Anomaly Spotting Using Patent Citations

In this citation map each node represents a company that cites one of Brooks Automation's six core technologies directly or—by citing patents that cite Brooks's patents—indirectly. The companies fall into five distinct application domains. Each line links a company to another company whose patents it cites directly, and the thickness of lines denotes the number of citations. The nodes in the circled group represent medical-applications companies.



4 Probe, shape, and commit. Having identified and named a potential new trend, the final step is to act on it. Even important anomalies are weak signals, so testing an idea rapidly and iteratively—for instance, by running small experiments—will help you both validate the idea and learn more, by revealing other anomalies that might prompt you to rethink your idea. In a changing environment we learn, counterintuitively, by acting and then thinking.

Acting on opportunities should involve more than learning and reacting, however. Because anomalies presage emerging opportunities, they tend to be malleable. Thus early actors can shape how they will unfold by developing new ideas in collaboration with customers and partners. For example, the 2003 SARS epidemic in Asia caused e-commerce adoption to accelerate, spurring online retailers to focus on consumer channels in addition to B2B sales. Because many customers mistrusted online purchases, Alibaba launched Alipay, which reduced transaction risk and rated sellers, increasing trust and enabling the company to become China's e-commerce leader. In other words, it shaped the context for e-commerce and thereby expanded its potential.



When you have validated a promising opportunity, back your hunch. Large organizations are too often unwilling to make more than minor adjustments to existing budgets.

As the Alibaba example illustrates, when you've identified and validated a promising opportunity, you should back your hunch. Large organizations are too often unwilling to make more than minor adjustments to existing budgets. Companies that are prepared to shift capital allocation aggressively generally achieve stronger growth—especially after crises, when opportunities are disproportionately likely to emerge.

Let's look at one company that applied the principles and processes we've outlined to identify new growth opportunities.

HOW A SEMICONDUCTOR SUPPLIER DISCOVERED BIOBANKING

Facing slowing growth in the late 2000s, Brooks Automation, a U.S. semiconductor equipment manufacturer, sought opportunities in adjacent markets that would leverage its core technological capabilities, such as creating very cold vacuum environments and handling wafers within them. It mapped a granular web of who was citing its patents directly and also who was citing the companies citing its patents. Six core technologies, including cryopumps and materials handling, had 90 first-level citations and nearly 400 second-level citations among them. The exhibit "Anomaly Spotting Using Patent Citations" shows that the companies citing the patents fell into five distinct application domains.

As Brooks managers dug into the details, they identified an interesting and hitherto unrecognized pattern: The map showed not only direct links between their company's patents for cryocooling and MRI and cryosurgery applications but also many weaker ties between other Brooks technologies, such as automation systems, and other medical applications, such as medical robotics, suggesting that medicine might be a promising area to explore.

To test the possibilities, Brooks zoomed in on medical applications and discovered that although it held no patents in cryogenic tissue cooling, the cluster of its other patents around that topic was growing. And research indicated that existing approaches to freezing human tissue were haphazard and unreliable, suggesting a significant gap in the market that Brooks could potentially fill.

Having narrowed down the opportunity, Brooks moved to the third step in our process. Through ideation sessions

with engineers in its cryopump and robotic wafer manipulation businesses, the company developed a compelling story around this opportunity: that Brooks could foster and grow "precision biobanking" to support the life sciences market with digitization, better-controlled environments, and automatic retrieval of samples.

To seize the opportunity before other competitors saw and acted on it, Brooks made a series of small, strategic acquisitions that added industry experience and filled capability gaps while also developing new products to store biological samples more reliably and systematically. Having entered the new niche early, Brooks became the market leader, and its life sciences business grew at 35% annually over the next decade. That allowed it to outperform its peers, which continued to focus largely on semiconductor customers, and to achieve annualized total shareholder returns of 22% during the 2010s.

THE LATE CLAY Christensen, whose theory of disruptive change redefined how managers think about innovation, hung a wooden sign outside his office at Harvard Business School. (An enthusiastic wood carver in his spare time, he had made the sign himself.) It read: *Anomalies Wanted*. Christensen delighted in finding anomalies, because he recognized that meeting the unexpected leads to the greatest advances in knowledge. Anomalies inspire us to test and improve and perhaps change our theories and models of how the world works. People often argue that the power of data analytics lies in its ability to help us identify new patterns in the reams of data we now have access to. That's true. But we should not forget that those new patterns often start as anomalies in the patterns we've already seen. Anomaly-driven innovation can help companies spot them and shape the nascent patterns forming around them. 

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SPACS



ENTREPRENEURIAL
FINANCE



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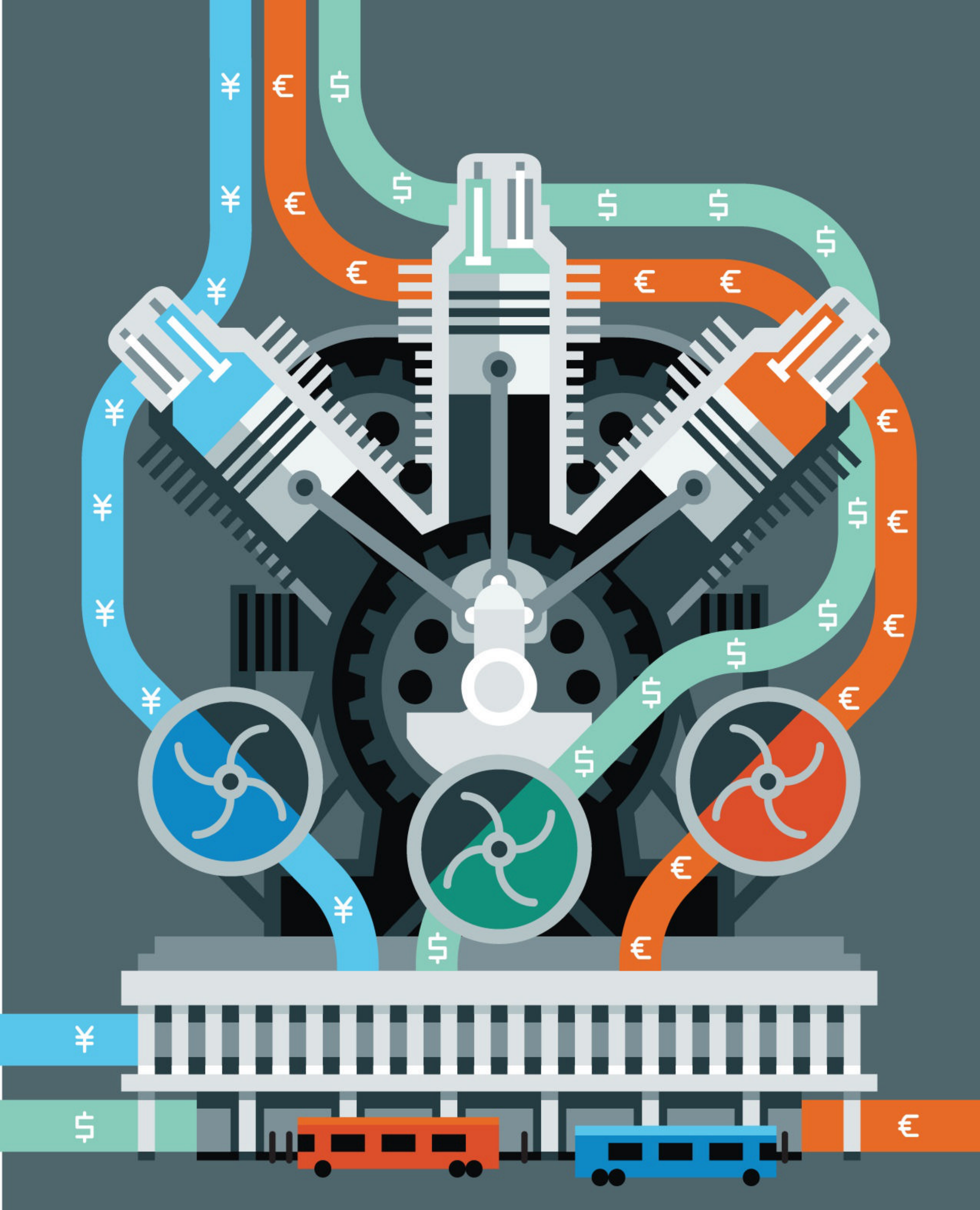


ILLUSTRATOR

L-DOPA

What You Need to Know

A guide for the
curious and
the perplexed





Special Purpose Acquisition Companies,

or SPACs, are garnering a lot of attention lately in corporate boardrooms, on Wall Street, and in the media. And for good reason: Although SPACs, which offer an alternative to traditional IPOs, have been around in various forms for decades, during the past two years they've taken off in the United States. In 2019, 59 were created, with \$13 billion invested; in 2020, 247 were created, with \$80 billion invested; and in the first quarter alone of 2021, 295 were created, with \$96 billion invested. Then there's this remarkable fact: In 2020, SPACs accounted for more than 50% of new publicly listed U.S. companies.

A SPAC is a publicly traded corporation with a two-year life span formed with the sole purpose of effecting a merger, or "combination," with a privately held business to enable it to go public. SPACs raise money largely from public-equity investors and have the potential to derisk and shorten the

IPO process for their target companies, often offering them better terms than a traditional IPO would.

Investor euphoria naturally invites skepticism, and we're now seeing plenty of it. When the researchers Michael Klausner, Michael Ohlrogge, and Emily Ruan analyzed the performance of SPACs from 2019 through the first half of 2020, they concluded that although the creators of SPACs were doing well, their investors were not. Another potential cause for concern is that all sorts of celebrities and public figures—from the singer Ciara to the former U.S. speaker of the house Paul Ryan—are jumping on the bandwagon, a development that led the *New York Times* to suggest in February 2021 that SPACs represent "a new way for the rich and recognized to flex their status and wealth." Perhaps the most pessimistic take we've seen so far this year has come from Ivana Naumovska, an INSEAD professor who argued in an HBR.org article that SPACs have not changed much from their previous incarnation—the much-maligned blank-check corporations of the 1990s—and are simply not sustainable. Her article's title? "The SPAC Bubble Is About to Burst."

We agree with critics that not all SPACs will find high-performing targets, and some will fail completely. Many investors will lose money. Nevertheless, we believe that SPACs are here to stay and may well be a net positive for the capital markets. Why? Because they offer investors and targets a new set of financing opportunities that compete with later-stage venture capital, private equity, direct listings, and the traditional IPO process. They provide an infusion of capital to a broader universe of start-ups and other companies, fueling innovation and growth.

We write as practitioners. Paresh is the CEO and a cofounder, along with Sebastiano Cossia Castiglioni, of Natural Order Acquisition Corporation, a SPAC created in 2020, focused on the plant-based-food economy. Max serves on its board. In this article we'll share much of what we've learned about the limits and virtues of SPACs, drawing on our recent experience and our deep expertise in the investment world (Paresh) and in negotiation and decision-making (Max). In particular, we'll spell out why some companies are seeking capital from SPACs instead of traditional IPOs and what sophisticated investors and entrepreneurs stand to gain.

The evidence is clear: SPACs are revolutionizing private and public capital markets. Thus, it's increasingly important



SPACs have allowed many companies to raise more funds than alternative options do, propelling innovation in a range of industries.

that leaders and managers know how the game is played. We need to emphatically state, however, that this article is not a blanket endorsement of SPACs. It is simply a guide for businesspeople considering a move into this rapidly evolving (and for many, unfamiliar) territory.

A QUESTIONABLE START

When SPACs first appeared as blank-check corporations, in the 1980s, they were not well regulated, and as a result they were plagued by penny-stock fraud, costing investors more than \$2 billion a year by the early 1990s. Congress stepped in to provide much-needed regulation, requiring, for example, that the proceeds of blank-check IPOs be held in regulated escrow accounts and barring their use until the mergers were complete. With a new regulatory framework in place, blank-check corporations were rebranded as SPACs.

In the decades that followed, SPACs became a cottage industry in which boutique legal firms, auditors, and investment banks supported sponsor groups that largely lacked blue-chip public- and private-investment training. They tended to focus on distressed companies or niche industries, reflecting the investment opportunities of the period. But that changed in 2020, when many more serious investors began launching SPACs in significant numbers. Established hedge funds, private-equity and venture firms, and senior operating executives were all drawn to SPACs by a convergence of factors: an excess of available cash, a proliferation of start-ups seeking liquidity or growth capital, and regulatory changes that had standardized SPAC products.

As these experienced players brought credibility and expertise to the industry, less-sophisticated investors took notice, triggering the current gold rush. On the whole, however, SPAC sponsors today are more reputable than they have ever been, and as a result, the quality of their targets has improved, as has their investment performance.

Today, most SPACs focus on companies that are disrupting consumer, technology, or biotech markets. Some of these firms are speculative, have enormous capital requirements, and can provide only limited assurances on near-term revenue and viability. (Electric-vehicle companies often fall into this category.) SPACs have allowed many such companies to raise more funds than alternative options would, propelling innovation in a range of industries. Risk-taking and speculation at this level can be unwise for unsophisticated investors, of course, but we believe that seasoned analysts can find great investment opportunities.

Some observers aren't so sure, including the researchers we cited above. Their study, published in the *Yale Journal on Regulation*, focused on an important feature of modern SPACs: the option for investors to withdraw from a deal after the sponsor identifies a target and announces a proposed merger. If investors don't like the deal, they can choose to pull out, redeeming their shares for cash invested plus interest. The researchers found that among the SPACs in their study, the average rate of redemption per deal was 58%, with a median redemption rate of 73%. Not only that, in more than a third of the SPACs, over 90% of investors pulled out.

At a glance, those numbers don't inspire confidence, because they suggest that most SPAC investors are backing

IDEA IN BRIEF

THE FUNCTION

SPACs are publicly traded corporations formed with the sole purpose of effecting a merger with a privately held business to enable it to go public.

THE ADVANTAGES

Compared with traditional IPOs, SPACs often offer targets higher valuations, less dilution, greater speed to capital, more certainty and transparency, lower fees, and fewer regulatory demands.

THE CAVEATS

Not all SPACs will find high-performing targets, and some will fail. Many investors will lose money. As an investment option they have improved dramatically, especially over the past year, but the market remains volatile. More changes are sure to come, which means that sponsors, investors, and targets must keep informed and vigilant.



ENTREPRENEURIAL FINANCE

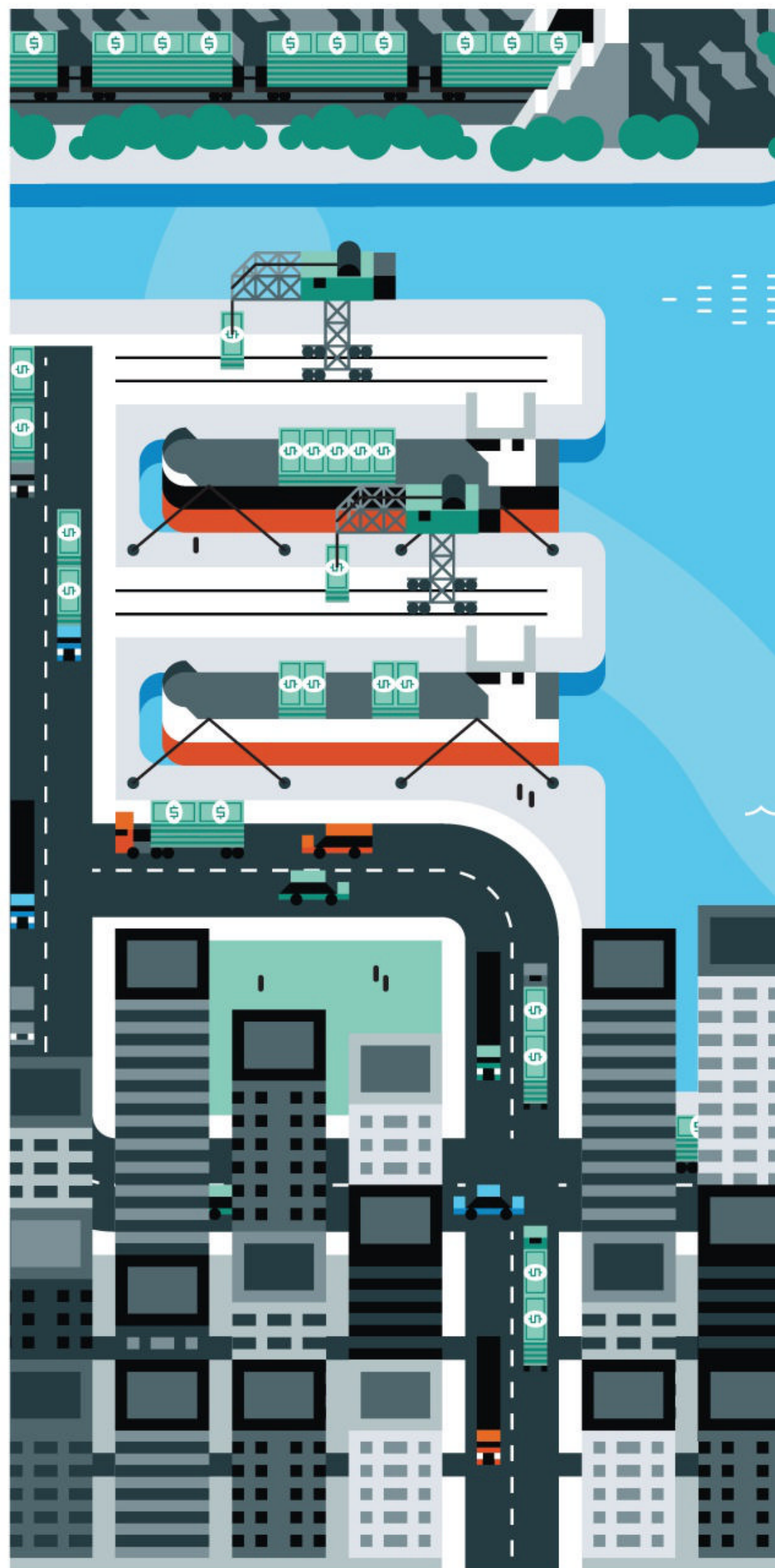
out after targets are identified. But when we took a closer look at the study, we discovered that many of the SPACs had raised relatively small amounts of capital and offered higher-than-average warrants as an incentive to entice investors—both indications of lower-quality sponsor teams. Market conditions have changed over the past nine months, and sponsor teams have improved markedly. As a result, far fewer investors are now backing out. That’s what we found when we analyzed redemption history since the study ended. For the 70 SPACs that found a target from July 2020 through March 2021, the average redemption rate was just 24%, amounting to 20% of total capital invested. And over 80% of the SPACs experienced redemptions of less than 5%.

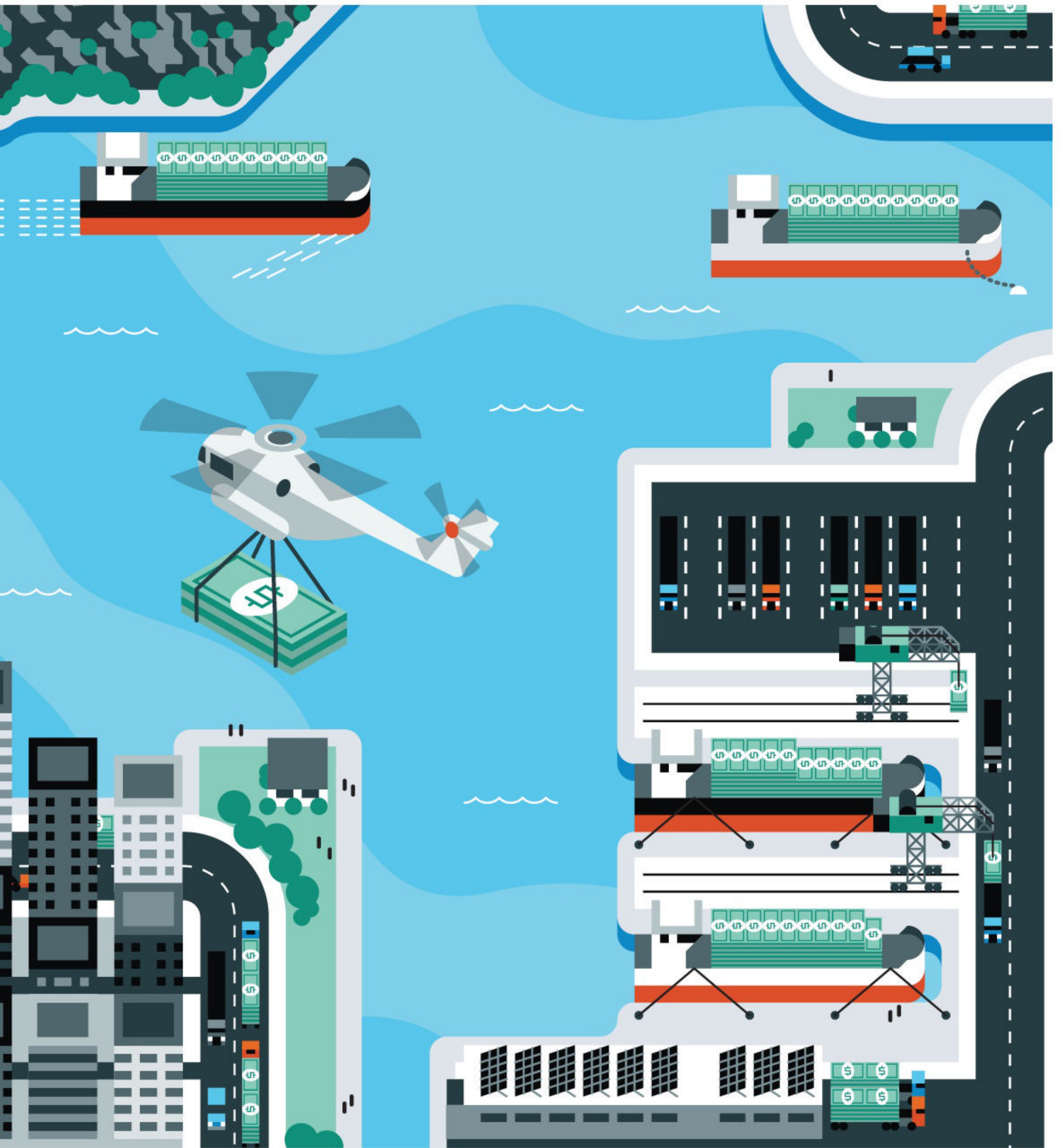
What this suggests is that today’s SPAC ecosystem is fundamentally distinct from the one that existed as recently as 2019, characterized by different risks, stakeholders, structures, and performance. In this new ecosystem, corporate boards, investors, and entrepreneurs are all putting time and effort into demystifying the SPAC process and making it as flexible as possible so that the economic proposition for target companies optimizes current valuation, long-term opportunity, and risk.

The recent results are encouraging. For all deals closed from January 2019 through the first quarter of 2021, the average stock price for SPACs postmerger is up 31%—a figure that trails the S&P 500, which is up 36%, on average, over the same time period. But a more recent snapshot—January 2020 through the first quarter of 2021—shows that postmerger SPACs are outperforming the S&P 500 by a wide margin, up 47% versus 20%. And for SPACs with an announced deal but no merger as of March 2021, stocks are up 15% since IPO, on average, compared with 5% for the S&P 500 over the same time period. Our point is not that our analyses are correct and the earlier ones were wrong. Rather, we mean to highlight the volatility of the SPAC market and the need to pay attention to the timing and limitations of market analyses.

WHO ARE THE STAKEHOLDERS?

SPACs have three main stakeholder groups: sponsors, investors, and targets. Each has a unique set of concerns, needs, and perspectives.







Sponsors. The SPAC process is initiated by the sponsors. They invest risk capital in the form of nonrefundable payments to bankers, lawyers, and accountants to cover operating expenses. If sponsors fail to create a combination within two years, the SPAC must be dissolved and all funds returned to the original investors. The sponsors lose not only their risk capital but also the not-insignificant investment of their own time. But if they succeed, they earn sponsors' shares in the combined corporation, often worth as much as 20% of the equity raised from original investors.

Let's do some math. A sponsor creates a SPAC with a goal of \$250 million in capital, investing roughly \$6 million to \$8 million to cover administrative costs that include underwriting, attorney, and due diligence fees. With the structure and

concept in place, the SPAC sells 25 million shares to investors at \$10 per share. The sponsor also buys, for a nominal price, 6.25 million shares, which amount to 20% of the total outstanding shares. If the sponsors succeed in executing a merger within two years, their founders' shares become vested at the \$10-per-share price, making the stake worth \$62.5 million.

Some critics consider that percentage to be too high. But remember, those rewards are available to sponsors only if they develop a strong concept and successfully attract investors, identify a promising target, and convince the target of the financial and strategic benefits of a business combination. They must also negotiate competitive transaction terms and shepherd the target and the SPAC through the complex merger process—without losing investors along the way.

The SPAC Process at a Glance



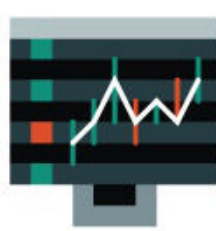
1

Announce the creation of the SPAC. Prior to identifying a target, sponsors develop a SPAC business plan, invest \$1.5 million to \$2 million for operating expenses to start the process, and announce a board of directors.



2

Assemble the sponsor team and raise capital from investors. Sponsors fill out their team with underwriters and others, file an S-1 offering document, and participate in a limited road show to raise capital—typically \$200 million to \$750 million—largely from special-situation public investors.



3

Take the SPAC public. Once the SPAC goes public, its stock becomes tradable, as with any other publicly listed corporation. Sponsors pay the underwriters 2% of the raised amount as IPO fees. Generally within 52 days, the units of the SPAC are split into warrants and common shares, which trade independently.



4

Identify the target. The SPAC management team begins discussions with privately held companies that might be suitable merger targets. The SPAC has two years to reach an agreement with a target; if it fails to do so, management can either seek an extension or return all invested funds to the investors, at which time the sponsors lose their risk capital.



5

Raise additional funds. When the SPAC and target agree to terms, the SPAC commences a road show to validate the valuation and raise additional capital in a round of funding known as a PIPE, or private investment in public equity.



6

Negotiate terms, sign an agreement, and file a proxy. The merger and PIPE agreements are signed simultaneously, and the SPAC and the target file a proxy, which outlines the financial history of the target along with merger terms and conditions.



Not all SPAC investors seek high-flying returns, nor are they necessarily interested in the merger itself. The structure allows for a variety of return and risk profiles and timelines.

That's a tall order. And with the proliferation of SPACs, the competition among sponsors for targets and investors has intensified, heightening the chance that a sponsor will lose both its risk capital and investment of time.

Investors. The vast majority of investments in SPACs to date have come from institutional investors, often highly specialized hedge funds. Original investors in a SPAC buy shares prior to the identification of the target company, and they have to trust sponsors who are not obligated to limit their targets to the size, valuation, industry, or geographic criteria that they outlined in their IPO materials. Investors receive two classes of securities: common stock (typically at \$10 per share) and warrants that allow them to buy shares in the future at a specified price (typically \$11.50 per share).



7

Set a date for investors to approve or reject the deal.

The SPAC schedules a formal date for SPAC shareholders to (a) approve the deal and have their investment rolled into the combined entity, (b) approve the deal but receive their invested funds back with interest, or (c) reject the deal and receive their invested funds back with interest. If the merger fails, the SPAC starts over with a different target or, if the two years have run out, returns invested capital and disbands.



8

Complete the merger.

If the deal is approved, the merger is completed shortly thereafter using the assets remaining after any withdrawals. The SPAC and PIPE proceeds (after deduction of various expenses) are invested in the target, the governance structure of the SPAC dissolves, and the target starts trading under its own name and ticker symbol.

Warrants are a critical ingredient in the risk-alignment compact between SPAC sponsors and investors. Some SPACs issue one warrant for every common share purchased; some issue fractions (often one-half or one-third) of a warrant per share; others issue zero. Given that warrants, which provide additional upside to early investors, are incentives to subscribe, the greater the number of warrants issued, the higher the perceived risk of the SPAC.

After the sponsor announces an agreement with a target, the original investors choose to move forward with the deal or withdraw and receive their investment back with interest. Even if they decide to pull out, they can keep their warrants. In this sense, the SPAC provides them with a risk-free opportunity to evaluate an investment in a private company.

Not all SPAC investors seek high-flying returns, nor are they necessarily interested in the business combination itself. Some have no intention of keeping capital in the merger and use the structure on a levered basis to obtain a guaranteed return—often at a higher yield than Treasury and AAA corporate bonds offer—in the form of interest on invested income and the sale of warrants, while getting a look at the combination. The complexity of the structure allows for a variety of return profiles, risk profiles, and timelines, depending on investors' goals.

Targets. Most SPAC targets are start-up firms that have been through the venture capital process. Firms at this stage commonly consider several options: pursuing a traditional IPO, conducting a direct IPO listing, selling the business to another company or a private equity firm, or raising additional capital, typically from private equity firms, hedge funds, or other institutional investors. SPACs can be an attractive alternative to these late-round options. They are highly customizable and can address a variety of combination types. Although targets are commonly a single private company, sponsors may also use the structure to roll up multiple targets. SPACs can also take companies public in the United States that are already public overseas and even combine multiple SPACs to take one company public.

HOW TO PLAY THE GAME

Successful SPACs create value for all parties: profit opportunities for sponsors, appropriate risk-adjusted returns for



investors, and a comparatively attractive process for raising capital for targets. The greater the value that can be created, the more likely it is that a SPAC will negotiate satisfactory terms for all parties and reach a successful combination.

In the early days, sponsors created value by investing risk capital and convincing public-equity shareholders of the investment opportunity. Sponsors are now providing more certainty to those stakeholders by tapping various types of institutional investors (mutual funds, family offices, private equity firms, pension funds, strategic investors) to invest alongside the SPAC in a PIPE, or private investment in public equity. This additional source of funding allows investors to buy shares in the company at the time of the merger. Sponsors use PIPEs to validate their investment analysis (PIPE interest represents a vote of confidence), increase the overall funding available, and reduce the dilution impact of sponsor equity and warrants. They also serve as a means to guarantee a minimum amount of cash invested in the event that original investors choose to pull out of the deal. PIPE investors commit capital and agree to be locked up for six months. They take on this risk because they're confident in the investment opportunity, they assume the merged entity will be thinly traded after the merger, and they're offered subscription prices that are expected to be at a discount to market prices.

To steer a SPAC through the entire process, from conception to merger, the sponsor needs a strong team. Not unlike private equity firms, many sponsors today recruit operating executives who have the domain expertise to evaluate targets and the ability to convince them of the benefits of combinations. They also seek out board members with valuable relationships and demonstrated experience in governance and strategy.

SPAC deals are complex and must be executed on tight timelines. SPAC teams must have experience with operational and legal due diligence, securities regulations, executive compensation, recruiting, negotiation, and investor relations. Although some of these roles can be outsourced, sponsors typically hire dedicated staff to quarterback these parallel processes. If a SPAC can assemble a strong team, it will be more likely to attract sophisticated long-term investors on good terms, and more-attractive target companies will invite it into merger conversations.

Indeed, when SPACs have these sorts of observable advantages, they often declare them in their IPOs. (High-quality targets are as concerned about the deal execution process as they are about price.)

WHAT'S IN IT FOR TARGETS

SPACs offer target companies specific advantages over other forms of funding and liquidity. Compared with traditional IPOs, SPACs often provide higher valuations, less dilution, greater speed to capital, more certainty and transparency, lower fees, and fewer regulatory demands.

Take speed, for example. For targets, the entire SPAC process can take as little as three to five months, with the valuation set within the first month, whereas traditional IPOs often take nine to 12 months, with little certainty about the valuation and the amount of capital raised until the end of the process. When it comes to valuation, SPACs again often offer more than traditional IPOs do. Several months prior to a merger, the parties in a SPAC, including the target, negotiate a capital commitment and a binding valuation (although the valuation is subject to approval by PIPE investors). In traditional IPOs, by contrast, targets largely cede the valuation process to the underwriters, who directly solicit and manage potential investors.

Another important advantage is that SPACs often yield higher valuations than traditional IPOs do, for a variety of reasons. First and foremost, in the traditional process there's a conflict of interest: Underwriters often have a one-off and transactional relationship with companies looking to go public but an ongoing one with their regular investors. To a large extent, the underwriters control the allocation of shares and use the process to reward their best and most important clients. They often set an initial price below the market's actual valuation, providing higher returns to their buying customers and to themselves.

Consider what that means for the target. In 2020, the value of companies in the first 90 days after they went public in a traditional IPO rose 92%, on average. That might sound like a resounding success—but what the strong post-IPO performance actually suggests is that these companies raised too little capital at too low a price in the IPO process. In failing to optimize their balance sheets and overall dilution,



For targets, the entire SPAC process can take as little as three to five months, with the valuation set within the first month, whereas traditional IPOs often take nine to 12 months.

the companies left money on the table, which was probably captured by IPO bankers and their clients.

As a target, you should be laser focused on the sponsor's deal execution and capital-conversion capabilities. You should scrutinize the quality and expertise of the team's legal advisers, bankers, and IPO-readiness advisers and their ability to complete the work in the dramatically condensed time frame. You should ask sponsors to explain their investment theses and the logic behind their proposed valuation. And you should evaluate the team's ability to execute back-end activities, including raising the PIPE, managing the regulatory process, ensuring shareholder approvals, and crafting an effective public relations story—all of which are necessary for a smooth transition to a public listing. Bearing these things in mind, you may find you have plenty of reasons not to choose the SPAC that makes you the highest offer.

One last piece of advice for targets: Remember that sponsors don't have much time to complete a combination. Because of that, if you can demonstrate that your financial records are in compliance with the Public Company Accounting Oversight Board's regulations, you'll save everyone time and provide more certainty, which will make your firm a notch more attractive and put you in a better negotiating position.

NEGOTIATE FOR SUCCESS

Game theory emphasizes the importance of thinking about the likely decisions of the other party in developing a rational course of action in a negotiation. This is certainly true in the SPAC ecosystem, where you need to fully understand the motivations and goals of multiple parties.

Consider the sponsor-target negotiation. If you analyze it simply as a two-party process, you'll find that the target has considerable leverage, particularly late in the 24-month cycle, because the sponsor stands to lose everything unless it is able to complete a deal. But when you factor original investors into the equation, the calculus changes, because they can reject deals after they've been announced. Unreasonable terms that favor targets will not survive the PIPE process or will trigger high investor redemptions and put the deal at risk.

Sponsors, therefore, need to negotiate an effective combination that creates more value for the target relative to its other options—and is also attractive to the investors. The negotiation is further complicated by the fact that targets may be talking with more than one SPAC, at least early in the negotiation process.

As with any other complex negotiation, a SPAC merger agreement presents almost unlimited options for customization. All players should come to the table with a solid understanding of what they need, want, and care about—and where they can find common ground. If you're an investor or a target, be aware that sponsors are focused on not only their shares but also their reputation, which can affect their ability to create additional SPACs. And if you're a sponsor or an investor, be aware that targets need to balance the various kinds of value they can gain—from the SPAC team, from dilution, from the execution of the deal, and even postmerger. Targets have to consider a host of other factors as well—cash available for operations, publicity upon going public, derisking, shareholder liquidity, and market conditions—which can further complicate the negotiation.

WE BELIEVE THAT SPACs are here to stay, and that they offer the potential for significant benefit. Some SPACs will fail, of course, at times spectacularly, and some of the players will behave unethically, as can happen with any other method of raising capital. But SPACs have improved dramatically as an investment option since the 1990s, and even since just a year ago. More changes are sure to come—in regulation, in the markets—which means that anybody involved in the SPAC process should stay informed and vigilant. This is a rapidly evolving story. 

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IN A DIGITAL ENVIRONMENT, YOUR LOCATION MAKES THE DIFFERENCE

In a recent Harvard Business Review Analytic Services survey, 83% of respondents said the global disruption has had a “significant” or “somewhat significant” effect on their business. These disruptions continue to accelerate in both the digital and the physical world.

Stronger global cloud-based networks support more remote employees, erasing time zones and borders that once divided businesses from their partners and customers. So we might seem to be living in a post-geographic world, where your organization’s location is now incidental, even irrelevant, to your goals and growth.

In reality, where you choose to locate your business has never been more important. Your resilience, agility, and capacity to channel and lead disruption depend in large part on where you’re based.

In considering which external factors determine where an organization chooses to locate and operate, the survey’s respondents cited three conditions as paramount: a strong and stable economy (82%), a business-friendly regulatory environment (80%), and the ease of setting up and doing business (77%).

If you’re starting an organization or considering a relocation, selecting a setting that supports all three conditions may free you to focus on the conditions you can control: building the innovations, the internal culture, and the customer relationships that help you grow your business.

A Capital Opportunity

For many decades, Hong Kong has built its reputation worldwide as a thriving center for commerce, innovation, and culture. Today, organizations here benefit from reliable access to both capital and talent, as well as favorable regulatory and compliance conditions that foster the emerging financial technology (fintech) sector.

Taken together, these attributes position Hong Kong-based organizations for resilience and the flexibility they need to weather unpredictable external disruptions such as climate change, growing income inequality, and changing regulatory oversight.

“Access to capital makes a huge difference to how innovative companies can be, what risks they can take, but also how much they can invest in trying to win markets,” says Matt Mills, chief commercial officer and general manager at Featurespace, a British developer of machine learning (ML)-based technology for enterprise financial crime prevention. “You tend to find that in some of the most competitive, high-growth organizations, there’s a natural correlation between those countries where high levels of capital from investors is available and the regions where you have the most innovative companies.”

Organizations’ biggest external sources of disruption, the respondents said, include restrictive regulations and insufficient access to capital, talent, and government support. But the biggest factor by far—identified by nearly half of the respondents—is an unstable economy.

In response to the challenges arising from the Covid-19 pandemic, the Hong Kong Special Administrative Region (SAR) Government in 2020 provided a number of pandemic stimulus relief packages that benefited companies like Gekko Lab, a Hong Kong-based developer of financial-intelligence knowledge-management software at Cyberport. In Hong Kong, Gekko Lab finds it can also source much of its talent from the area’s highly ranked universities.

“Hong Kong has the lowest tax rate among the peers in the region and also a very efficient business-oriented environment,” says Ric Cheng, CEO and founder of Gekko Lab. “Everything is down to business. People are very straightforward. This type of business culture is very good for us.”

Technology-Minded Regulation

Many companies that feel constrained by ever-changing regulatory environments elsewhere find Hong Kong’s climate less stringent, says Benjamin Quinlan, CEO and managing partner of Hong Kong-based strategy consultants Quinlan & Associates.

“Since the global financial crisis, many regulators have clamped down heavily on money laundering,” Quinlan says. “A lot of the banks cut off correspondent banking relationships, the relationships



with other banks to facilitate international money transfers. It caused a bit of a vacuum that many fintech companies chose to step into.”

With a worldwide increase in regulation, fintech and its subset, regulatory technology (regtech), are emerging as important tools for supporting business resilience. Some emerging fintech companies find Hong Kong’s favorable regulatory environment ideal for building such innovative solutions as alternative credit scoring and virtual banks.

At the same time, the Hong Kong SAR Government stringently adheres to anti-fraud measures and other guardrails that help businesses feel secure, says Dr. Terence Chong, an associate professor of economics at the Chinese University of Hong Kong. “This is very important for a company to control their risks. We also offer a lot of protection. We have a legal system to protect you if you have a dispute.”

Supporting this level of business protection requires regulatory governance to keep pace with technological advances, including ML and artificial intelligence (AI).

“The best fraud prevention and anti-money laundering strategies in the world are not always compatible with most countries’ financial services regulators’ best practices,” Mills says. “The regulatory environments where they take a more pragmatic approach to model governance realize that actually, model performance is paramount. Model governance is important but can be equal or even second to performance. You tend to find those environments are able to have better rates of fraud and lower cases of money laundering.”

Virtual Banking, Real-World Innovation

The technological expertise of Hong Kong’s regulatory governance helps both fintech companies and the organizations that use fintech protect their assets.

“Many of the applications that can be used in fintech can be applied across every single sector in the world,” Quinlan says, “whether it’s

advanced accounting software, low-cost international payment and transfer capabilities, or e-commerce solutions. You are fundamentally helping the global economy connect better together, reduce costs, and just become more efficient in the way they conduct business.”

The fintech respondents cite virtual banking as most useful against global disruption, offering easier onboarding, borderless access, and enhanced efficiency. “Eight virtual banks were launched in Hong Kong in 2020,” Quinlan says. “There was a lot of firepower here to launch and enough resources to get the right consortiums together to launch a full-scale bank on the back of a completely virtual platform.”



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Local and Global Advantages

The platforms may be virtual, but the real world remains real. “I think Hong Kong actually has a huge advantage, because we have a very large global-scale financial market that could very easily facilitate links with global supply chains by providing trade finance capabilities,” says Dr. Victor Fung, group chairman of Fung Group, a Hong Kong-based multinational enterprise engaged in trading, logistics, distribution, and retailing.

Cheng of Gekko Lab concurs: “There’s some natural advantage in Hong Kong in having highly business-minded talent and good access to capital,” he says. “You can quickly get the latest ideas everywhere from all over the world, because you can see people of all nationalities. It’s cosmopolitan. It’s very easy to quickly build a business relationship.”





BOARDS

Engaging with Your Investors

A playbook
for the board



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Index funds and other long-term investors are no longer a silent majority of shareholders. They have become a vocal constituency, asking boards to resist short-term pressures and act in ways that will ensure the perpetuity of their companies.

This development gives boards an opportunity to help shift the center of gravity toward long-term thinking—something that many management teams, academic experts, and public policy makers advocate.

Boards can make their biggest impact by bringing that long-term focus to what we call the new TSR—not total shareholder return but talent, strategy, and risk. When a company gets those aspects of the business right, sustainable success will follow.

Yet as boards attend to shareholders who favor patient capital, they cannot ignore the interests of others aiming for quick profits. They need a new playbook to manage the inherent tension and complexity that come with an increasingly diverse range of shareholders and stakeholders.

We've spent years working with boards, top executives, and the investment community, and we've interviewed the heads of dozens of public and private companies and investment firms. In this article we provide guidance on how

and when to meet with investors, how to get useful feedback, how to understand what each type of investor is looking for, and how to anticipate and ward off attacks from activists pressing for short-term wins. Although our advice is directed at board members, the insights will be valuable to CEOs, other members of the senior management team, and large shareholders as well.

Think of your investors as a resource. Whether aligned with or hostile to your long-term objectives, they often have fresh ideas about the company and its competitors.

Why Meet with Investors?

Some boards resist talking with investors, reasoning that management has that base covered. We think such a mindset is a mistake. Investors can be an independent source of information, supplying important details that management may not convey but that the board should be aware of.

For many years Estée Lauder discouraged its directors from talking with investors. But Vanguard, which has a sizable stake in the company, recently asked to meet with the board member in charge of the compensation committee. Following much discussion, the member agreed. After the meeting, the director returned to the boardroom with several insights that management hadn't shared about its investor interactions. Board member Lynn Forester de Rothschild says the report was an eye-opener. "I was skeptical of board engagement with institutional investors, but I now think it is a really good idea for both sides," she told us. "It makes management nervous, for obvious reasons. But I think we should try to do as much of it as the investment community wants."

Engaging with big shareholders can help you identify which are committed for the long haul and which might support activists pushing for a quick profit. It's an opportunity to build alliances. The point at which an activist arrives on your doorstep is not the moment you want to start educating major investors about your story and strategy. Communicating clearly all along can keep them on your side when you stumble or encounter opposition.

Sharing a clear rationale for what you're doing and what to expect may also head activists off at the pass. When Rajiv Gupta, now the chair of Aptiv, was on the board of Tyco International, an activist fund took a position in the



When you meet with investors, they are likely to ask questions designed to expose your vulnerabilities—operational, financial, and competitive.

company. Gupta recalls that the fund’s representatives met with the chairman of the board and the CEO and concluded, “You guys are doing just about everything we would do.” Three months later, Gupta says, “they walked away and sold their position.” A potentially bruising battle for control had been averted. (Disclosure: One of us, Carey, recruited board members to Tyco, and Charan consulted for the company years ago. Charan also previously consulted for four other companies mentioned in this article—DuPont, Ford, Nokia, and Microsoft—and gave several presentations at a Microsoft CEO summit.)

What Investors Want to Know

When you meet with investors of any sort, they are likely to ask questions designed to expose your vulnerabilities—operational, financial, and competitive. They will also probe your oversight of the management team. They want to satisfy themselves that you are managing talent, strategy, and risk to enhance shareholder returns, whether for short-term gain or long-term value.

To prepare for this scrutiny, you need to adopt an investor’s mindset. For starters, that means candidly sizing up your fellow directors. Dan Riff, the head of investor relations at Advantage Solutions, advises looking to see whether directors who are former CEOs bring the same expertise and urgency to their board work that they exhibited when running their companies. “Sometimes,” he says, “they retire from CEO roles where they were amazing and settle back a bit on the board and rubber-stamp a lot of what the others are

doing. When was the last time the board really got in the field and got its hands dirty with upper-middle management?”

Investors might also ask how you prepare for succession, both in the company and on the board, and how you ensure that the company is building the capabilities needed for sustained growth. In addition, they will want to know how you are developing sources of information so that you can make independent judgments about the market for talent.

You should also be ready to discuss executive compensation. The level of pay, along with the types of compensation and the triggers for enhanced rewards, will tell investors whether the company is emphasizing short- or long-term growth or balancing the two. For instance, annual bonuses and rewards often rise in tandem with the stock price; that’s normal. But if the CEO gets a 200% bonus for exceeding the target price, that’s a driver of short-termism. And if the company wants to pull money from the future to meet short-term goals, investors will want to know whether management must first seek board approval.

Investors will be curious, too, about the board’s operations. What are your biggest debates about? Are discussions truly focused on strategic opportunities and risks, or do they devolve to procedural matters? What skills will the board lack as the business evolves, and how is it addressing the holes? How much time do you spend on each important matter in your purview? Do you engage with outside experts when making decisions about large capital allocations?

Investors will also ask questions related to social impact. What has the board done to help the company be a good corporate citizen, to promote diversity in its ranks, and to

IDEA IN BRIEF

THE TENSION

Institutional investors have become a vocal constituency, pressing the board to act in ways that will ensure the company’s long-term survival. At the same time, directors cannot ignore the interests of activist investors who seek short-term wins.

THE OPPORTUNITY

By meeting regularly with big shareholders, board members can gain valuable information about the company and its competitors and build alliances to help defend against activist attacks.

THE WAY TO ENGAGE

The board should be transparent about its approach to talent, strategy, risk, and oversight of management. It should leave financial disclosures to the CEO but encourage open dialogue with investors—including activists, whose analytical rigor can be useful regardless of their goals.



BOARDS



Be mindful of time constraints and pacing; you want to keep investors engaged rather than crushed by information.

respond to climate change? In most companies, management decides how to track value creation. Do directors ever question management's methods or ask for changes in them?

You can be certain your investors are poring over your proxy statements, looking for insights about what metrics the board uses to assess performance, along with information about incentives and stock ownership levels among managers. Make sure you know as much about your company as those who are researching you do.

When to Meet with Investors

Creating a relationship with an investor takes time—and you want to solidify it before you need that party's help. We believe regular meetings are key. Former Xerox CEO and board chair Anne Mulcahy aimed to meet with the top 20 or 30 investors every 18 months to two years. “The intent is to have a regular cadence so that you can actually have relationships,” she says. “It's both listening and sharing messages that you'd like them to hear.” Be mindful of time constraints and pacing; you want to keep investors engaged rather than crushed by information. But Mulcahy recommends accommodating any sizable investor who asks for a meeting: “Try to say yes 99% of the time.”

Some people advise a lighter hand. “I wouldn't prescribe boards to interact on a regular basis with all sets of shareholders,” says Daniel Pozen, of Wellington Management. “It would be responsible practice for a board to invite one shareholder per year to give a presentation on its perspective of the company.” With this approach, the type of shareholder should rotate: One year it could be a passive shareholder, another year a long-term active shareholder, then a former shareholder whose exit holds important lessons.

Investors' desire to meet with your board, and the optimal frequency of meetings, will depend on your company's size and the size of the investment. Tailor your approach accordingly.

Who Should Take Meetings—and What Should Be Discussed

We recommend that boards establish a talent, compensation, and execution committee to oversee the recruitment, pay, and

performance of the company's senior leaders. Ideally, the chair of the strategy and risk committee will be part of this new group. Thus, it is the one place on the board where the key areas of the new TSR converge, and its members are the directors who are best prepared for investor engagement.

Whoever takes such meetings should limit what's disclosed. The board's main task is to find out what investors think of and know about the company. It's appropriate to tell them how you oversee talent, strategy, risk, and the management team. But it's not your role to disclose material information about financials or future plans; that's the job of the CEO, with advice and coaching from the board. Some best practices to encourage:

Be transparent, and honor your commitments. Companies should do what they have promised, even if that doesn't align with an investor's favored strategy. General Motors, for example, has a highly diverse investor base, with widely different timelines for realizing returns. It tries to manage the relationship with each investor but always does what it believes will foster long-term value.

Warren Buffett, the CEO and chair of Berkshire Hathaway, argues for a high degree of openness. He treats stockholders as he would co-owners who are siblings, discussing what worries him, what the various businesses are worth, how durable their competitive advantage is, and how he plans to allocate capital. “The CEO absolutely owes that to the owners,” he says. “I believe strongly that everybody's entitled to the same information, and that means information about valuation prospects and personnel—exactly what you would tell a silent partner.”

Avoid or limit earnings guidance. Whether to issue earnings guidance is one of the thorniest issues public companies face in dealing with investors. Our advice: Don't do it unless you absolutely have to—and if you do, give yourself plenty of leeway. “As a public company ourselves, we avoided issuing guidance like the plague,” says former T. Rowe Price chair Brian Rogers. “Companies and management always want to underpromise and overdeliver, but all too often management teams get caught up in the overpromise, because it feels good in the short term. And if you disappoint, there's hell to pay.”

Moreover, while it can cause companies grief, guidance is rarely very useful to investors. If a stock goes down because of a nonstructural issue, it will usually bounce back soon,



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BOARDS

because in most companies the 10 biggest shareholders—likely to be institutional investors who won’t pull their money out—own at least 50%. The rest is in the hands of activist traders, who have no choice but to react.

Giving guidance will change analysts’ advice, however, focusing them more keenly on short-term performance. So if you can get out of the guidance business, or at least make guidance very long-range, you will have more room to pursue long-term objectives.

Keep an open mind. The information flow with investors operates in both directions, and companies stand to gain valuable insights from it. General Motors CEO Mary Barra considers input from any investor. “The first thing we do when we get a suggestion is ask, ‘Hey, is this a good idea? Let’s go research this,’” she says. After every earnings call, she and a few other executives reach out to some of the firm’s top investors and to short-term-focused hedge funds and listen to them all. The conversations have sparked new initiatives, especially on environmental issues, and contributed to GM’s adoption of a more comprehensive set of sustainability goals.

Anne Mulcahy recalls that when she sat on Target’s board, the activist investor William Ackman, whose Pershing Square Capital Management owned 10% of the company, approached with proposals for restructuring. Although much of what he recommended didn’t resonate, the directors benefited from hearing him out. “He had one good idea, which was to sell our financing arm—and we did,” Mulcahy says.

How to Deal with Activists

If you want to manage for the long term, activist investors pose a special threat. Be on guard, but don’t assume they are the root of all evil. Even if their goals are wrong, they can be a fount of information.

In our experience, activists do much more extensive analytical work than any other players to identify deficiencies in a company’s strategy and structure. They might invest millions of dollars consulting experts and interviewing former and current employees, suppliers, and customers. You might not act on their analysis in the same ways they would, but they do get to the bottom of performance issues. So be prepared to learn from their questions and to discuss their input with the CEO.

Activists also pour resources into evaluating portfolios and mergers and acquisitions; for example, they will typically investigate how many of your acquisitions created value and how many destroyed it. They will look at whether your answers jibe with their research, which will tell them how solid and knowledgeable the board is. So prepare for such inquiries thoroughly.

Know what type of activist you’re facing. Activists come in different stripes. Some may want to break apart your portfolio; some may try to create opportunities for a merger; some think a lot like long-term investors.

The greatest threat comes from activists who operate on a short timeline and are prepared to launch a takeover bid if earnings are disappointing. Smart companies anticipate and head off issues that might make them vulnerable. For instance, although liquidity is important as a hedge against crisis, you must balance the benefit against the risk of carrying too much cash on your balance sheet, which could make you an appealing takeover target.

But don’t abandon long-term thinking because of concern about activist threats. “When we go on [a corporate] board, we find that management is the one that is short-term-focused,” says Ed Garden, the chief investment officer at Triun Partners, speaking of companies in which the hedge fund invests. “They’ve been conditioned by the market to think short term. We’re the ones saying, ‘Let’s plan for 2025.’”

Be pragmatic when activists buy into your firm—even if they join your board. You can’t control who owns you, but you can sway the conversation. If activists take a position in your company, engage them and try to help them understand your objectives.

Most hostile suitors don’t act alone. Remember that the top 10 investors in a company usually own at least half the shares. Without their support, no activist can split up the company or oust its board or CEO. So the best way to defend against short-term activists is to keep your large investors close. Focus on communicating with them and persuading them to remain on your side.

If activists force their way onto the board, your best move is to listen closely and judge them by what they are saying, even if you don’t like how they are saying it. It may pay to actually invite activists to join the board, if they have demonstrated a genuine interest in long-term growth.

In some cases activists come onto the board because the fundamentals of the company aren’t working. After ValueAct Capital bought a \$2 billion stake in Microsoft, the software company made several bad bets, such as spending \$7.2 billion to buy Nokia’s mobile-phone business. ValueAct used its clout to place its president on the Microsoft board, after which Steve Ballmer stepped down as CEO—changes that helped set the company back on course. (Ballmer has said



If activists force their way onto the board, your best move is to listen closely and judge them by what they are saying, even if you don't like how they're saying it.

that leaving was his idea, though insiders attribute his exit to pressure from ValueAct, which prefers not to comment.)

And consider what the activist investor Nelson Peltz, a founder of Trian Partners, does when he joins the board of a company in which Trian holds a sizable stake. He will install one of the firm's most knowledgeable industry partners in a war room with the board members and insist that they hold meetings with multiple layers of management. The tactic can feel like an invasion, and it can rattle the other directors. But it generates valuable questions and information.

Here's another example from Trian of positive change triggered by an activist investor, although in this case the firm didn't secure a board seat. In 2013, after Trian took a position in DuPont, its team had a series of meetings with leaders of the chemical maker to discuss three imperatives in the activist playbook—cutting costs, reshaping the capital structure, and rethinking the portfolio of businesses—plus strengthening corporate governance. One idea Trian proposed early on was to split the company in three. But according to Nick Fanandakis, who was DuPont's CFO at the time, Trian's estimates of savings were over the top. "They said we could cut \$2 billion to \$4 billion from overhead costs," he recalls. "We only had \$4 billion to \$5 billion in overhead costs." DuPont wanted instead to merge with the Dow Chemical Company.

The conflict raged for two years. Then, after a downturn in DuPont's agricultural business, the CEO retired, and Ed Breen—a recent addition to DuPont's board—took the reins. DuPont eventually combined with Dow, realigned the collective businesses, and split into agriculture, specialty, and commodity companies—an amalgam of Trian's suggestion to divide the company in three and DuPont's preference for a straight-up merger.

The transformation from a conglomerate to a trio of focused businesses unlocked tremendous value. Under Breen's leadership, DuPont jettisoned its long-standing matrix organizational structure for one based on business lines, generating direct and indirect savings. As the businesses got their costs under control, Fanandakis says, they took a more critical look at expenditures. In all, DuPont shaved \$1 billion from annual costs—just a portion of what Trian had claimed it would save, but still a significant sum.

Looking back, Fanandakis thinks the company was too quick to perceive Trian Partners as the enemy. "Because the

information Trian hit us with in the first meetings was so extreme," he says, "we hunched our shoulders and went into battle. If we were going to do it tomorrow, I wouldn't be so defensive." In the end, the activist's presence helped DuPont cut expenses, improve its capital structure, and revamp its portfolio, all to the benefit of long-term value.

Prepare for destructive activists. Unfortunately, some activists will live up to your worst nightmares. Former Vanguard CEO Jack Brennan argues that having one on the board almost always changes the dynamic for the worse. "The market should be the force ensuring that boards and management teams are as productive and cost-effective and driven to succeed as they can be," he says. "Having a person with an agenda—that's different. The activist takes advantage of an aberration or creates an aberration to be disruptive."

The disruption may come from demeanor alone. Shelly Lazarus, the chair emeritus of Ogilvy & Mather, believes that some activists go too far in board meetings. "The content of what activists bring is really important," she says, "but it doesn't make a board more effective when you have somebody throwing firebombs every half hour."

Sometimes disruption from investors—of any type—takes the form of obsession with minor details. If you're an old-line company, you may suffer from a double standard in the way investors treat you. State Street's Ron O'Hanley says that when Mark Fields was Ford's CEO, Wall Street and the media subjected him to a lot of nit-picking, although his plan for leading the automaker proved to be pretty good. Meanwhile, investors gave the more-impulsive Elon Musk, at Tesla, a relative pass. "We let the disrupter get away with the conceptual charts, and we're boring away at the incumbent, looking at spreadsheet line G42 and saying why is it x as opposed to 1.2x?" O'Hanley recalls. "We may be asking different questions [of legacy firms and upstarts], but we should have the same level of scrutiny."

Be cognizant of such frictions; that way they won't blind-side you. And remember that even the most challenging relationships can bear fruit. Remain open-minded, but also be prepared to stick to your guns. The most important thing is to engage with your long-term shareholders early and often—that is, before a crisis. Regular dialogue will help your permanent investors understand what you're doing, and they'll be more likely to help you if a proxy fight erupts.



BOARDS



Regular efforts to communicate will give your investors a fuller picture of the company they own, and you will gain insights into their concerns.

Think like an activist. As a director, you need the backbone to support managers in taking the long view, but you should also understand why they might be tempted to emphasize the short term. So you must be aware of all the pressure points and opportunities an activist shareholder might identify.

Activists evaluate companies in a number of ways. They look at capital structure and cost structure—both operating and marketing costs. Legacy companies tend to treat sales, general, and administrative expenses as one item. Digital companies, however, break out the cost of sales and consider it an investment in growth. Investors measure the efficiency of these firms by seeing how their sales expense as a share of revenue compares with the same ratio for their peers. At the software company Citrix, for example, sales and marketing expenses amounted to 40% of revenue in 2014—well above the industry average. Activists moved in the following year.

Activists look at a company's portfolio too. If it contains unrelated businesses, does each piece perform better than its industry peers? Do management claims of synergy translate to dollars and cents? Would any pieces be more valuable to somebody else? Managers of diversified companies sometimes allocate cash from a healthy business to a sick one—a red flag. Sears did so in the 1980s and 1990s when it branched out into financial services, real estate, and online network services and consequently failed to invest enough in IT, causing the company to flounder.

Companies that are slow to adapt to the digital age—such as brick-and-mortar retailers—are also common targets. And activists look for undervalued stock. The market may not see the potential in a company's strategy or its latest initiatives, perhaps because management has failed to earn investors' trust. The board must create allies in the investment community to ensure support for well-founded long-term plans.

Throughout, the role of directors is to build credibility with investors. You need to help managers find ways to meet quarterly performance milestones even as they forge the company's future. If your firm makes investor calls, encourage the CEO to provide detailed information about what is happening on the ground—the progress of a product launch, say, or an update on a plant expansion announced the previous year—while heading off discussions focused on quarterly results. When responding to investors' questions,

executives should connect the short and long terms. Listen carefully to the calls, and watch for defensiveness on the part of management and within your own ranks.

Some companies hold so-called investor days. Smart executives use them to talk about strategy. JPMorgan Chase holds a conference for investors every year, covering every line of its business. Three months beforehand, managers start grilling one another on questions they might face. When getting ready, Mary Erdoes, the CEO of the firm's Asset & Wealth Management business, asks her staff to “tell me the truth, nothing but the truth, so help me God.” She says, “You prep like nothing else.” Regular efforts to communicate will pay handsome dividends: Your investors will get a fuller picture of the company they own, and you will gain insights into their most pressing concerns.

LEADING FOR THE long term is easier said than done. After all, the long term is made up of many short terms, and some shareholders are simply looking for quick profits. It takes courage, vision, and will to balance the siren call of short-termism with a truly long-range vision.

Boards have a key role to play in this effort. A company's sitting directors may collectively span decades of service—far longer than their CEO's likely tenure. They thus have a unique perspective from which they can counsel management and focus their attention on talent, strategy, and risk—the surest way to create long-term value. But directors must also be open to what investors have to say. Engaging more deeply with investors can help boards make smarter decisions about the new TSR and win support for their plans—to the benefit not only of their companies but of the economy and capital markets too. Nations depend on capital markets, and boards are central to their efficiency. If you, as directors, take advantage of your position, you can be true leaders for the future. ©

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THE HUMAN IMPERATIVE

NAVIGATING UNCERTAINTY IN THE DIGITAL AGE

Mired in uncertainty, are leaders equipped to make the right choices? The 2021 Global Peter Drucker Forum will zero in on the enduring questions raised by years of catastrophe. Many look to technology to provide the confidence needed to navigate through uncertainty. Yet there is a countercurrent emerging that calls for reasserting the human role. Which is the best way forward, and how can we ensure that it prevails?

SPEAKERS INCLUDE



Tal Ben-Shahar



Amy Bernstein



Steve Blank



Marcus Buckingham



Juan Enríquez



Hubert Joly



Karim Lakhani



Rita McGrath



Ikujiro Nonaka



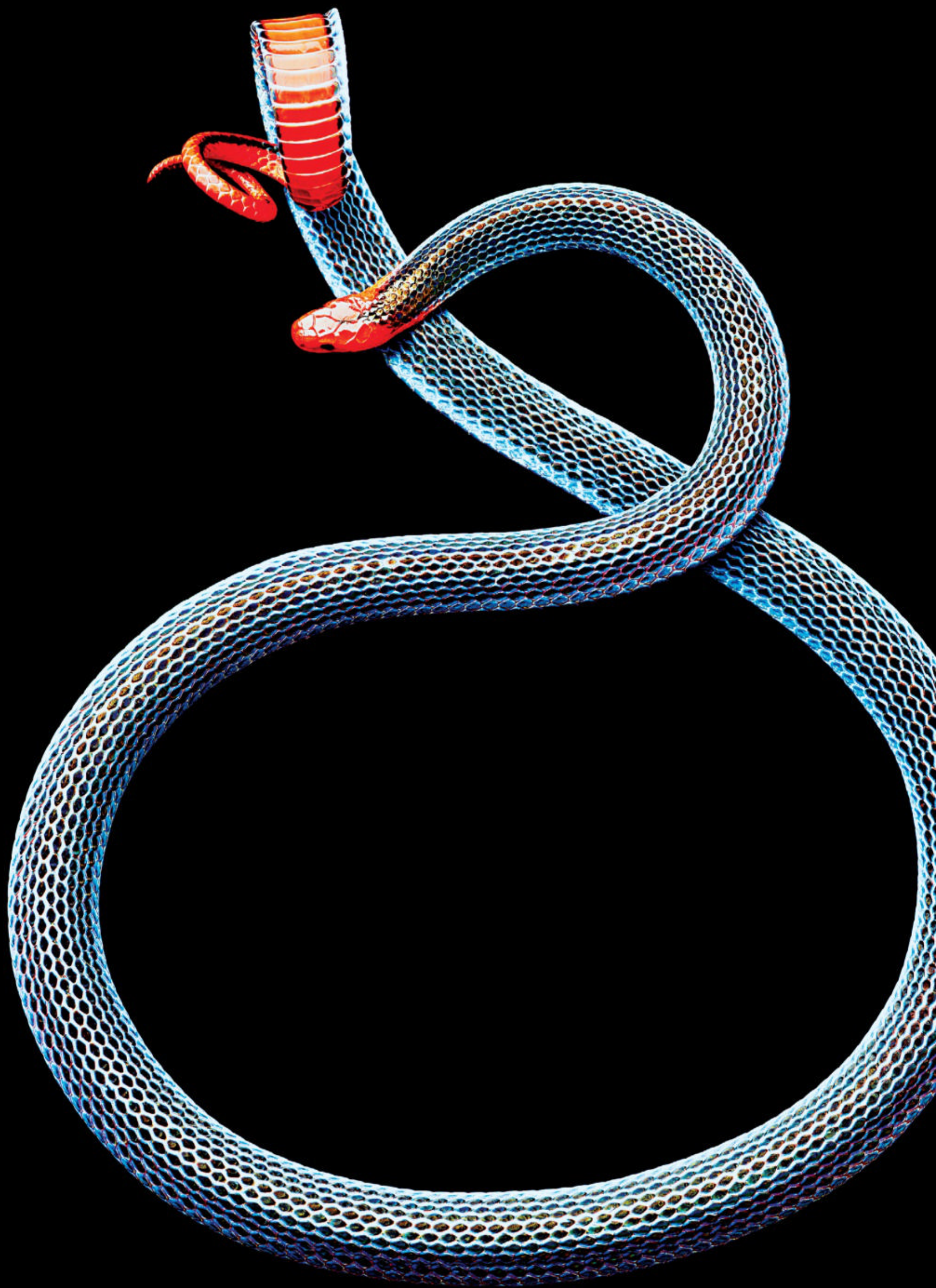
Daniel Pink

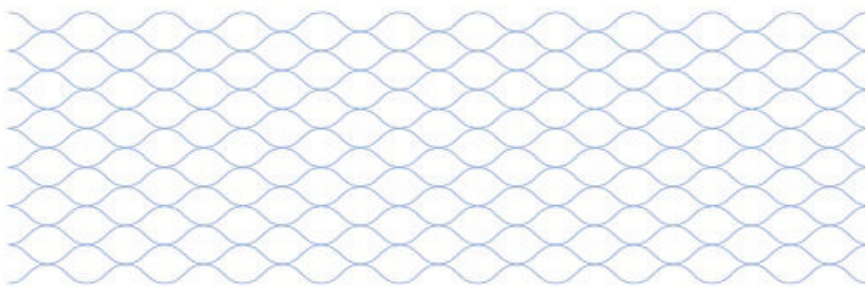


Zynep Ton



Amy Webb





ETHICS

Entrepreneurs and the Truth

They often bend it.
But don't demonize
them—the problem
is systemic.



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IDEA IN BRIEF

THE PROBLEM

Entrepreneurs are prone to exaggerate or obfuscate when trying to get their companies off the ground. That locks up resources by prolonging the lives of doomed ventures and making it difficult for VCs and employees to know where best to invest their money or labor.

THE REASON

Founders aren't bad people. But when they lie, they fall back on flawed justifications, such as the need to protect investors and employees. They might tell themselves that because all entrepreneurs stretch the truth, they must do so to stay competitive.

THE SOLUTION

Moral philosophy can help founders remain truthful. They can dream big, but they must be honest about the evidence and assumptions underpinning their vision. And they should seek out partners, investors, and others who will help them be their best selves.



the early days of Vice Media, cofounder Shane Smith sent a few copies of the Montreal-based start-up's fledgling publication to a record store in Miami and a skate shop in Los Angeles so that the company could tell advertisers its readership was distributed across North America—an act befitting the monicker “Bullshitter Shane,” reportedly bestowed on him by a friend and colleague.



Reality distortion is a slippery slope. Enthusiasm can lead to exaggeration, exaggeration to falsity, and falsity to fraud.



ETHICS

Such chicanery is too common in the start-up world. The norms of entrepreneurship encourage founders to be hustlers and evangelists for their companies. Indeed, legendary founders are celebrated for their ability to inspire others, even if that means stretching the truth. Consider Steve Jobs, the quintessential start-up pitchman. Early Apple employees describe him as able to “convince anyone of practically anything.” In the words of engineer Andy Hertzfeld, Jobs had a “reality distortion field, a confounding mélange of a charismatic rhetorical style, an indomitable will, and an eagerness to bend any fact to fit the purpose at hand.”

That’s a vital skill for founders, who must persuade their audiences to temporarily suspend disbelief and see the opportunity the entrepreneur sees: a world that *could be* but is not now. However, reality distortion is a slippery slope. Enthusiasm can lead to exaggeration, exaggeration to falsity, and falsity to fraud. This descent is embodied in Elizabeth Holmes, the Theranos founder and Jobs devotee who allegedly deceived investors and customers by marketing bogus blood tests.

The Holmes case is rare; few entrepreneurs face criminal fraud charges, as Holmes did when this article went to press. But lesser indiscretions are common, including obfuscation, lies of omission, exaggeration, embellishment, evasion, bluffs, and half-truths. And they come at a cost. Deception results in market inefficiencies; it locks up resources by prolonging the lives of doomed ventures and making it difficult for VCs and employees to know where best to invest their money or labor. We believe it also takes a personal toll on founders, given the debilitating stress that often accompanies lying.

How can we drive deception out of the start-up culture while also encouraging entrepreneurs to take risks and dream big? We have spent decades researching this question, and we bring a multidisciplinary approach to answering it. One of us (Kyle) is a successful founder turned academic; one (Jon) teaches business and philosophy; and two (Tom and Laura) hold academic appointments focused on ethical entrepreneurship. In this article we first explore why deception is so prevalent among entrepreneurs and then explain why common justifications for it are invalid. Finally, we suggest guidelines for behavior that can help entrepreneurs be both successful and honest—to the benefit of all.

Why Entrepreneurs Lie

The Chicago economist Frank Knight was one of the first scholars to study the role of entrepreneurs in the modern capitalist system. In his 1921 book *Risk, Uncertainty, and Profit*, he distinguishes entrepreneurs from other businesspeople by their willingness to act in the face of uncertainty. Of course, established businesses face uncertainty too—but start-ups must navigate through a particularly dense fog. Entrepreneurs often don’t know whether their product will work, how it will be manufactured, who the customers will be, or how they can be reached. For Knight, an entrepreneur is someone who, facing all this uncertainty, acts while others dither.

But action alone is insufficient. An entrepreneur needs others’ help and must therefore be a persuasive cheerleader—when pitching VCs for funding, wooing prospective employees away from cushy jobs, persuading customers to take a chance on a new product, and instilling confidence in the team amid the start-up’s vacillating fortunes.

That’s the first reason some entrepreneurs are less than truthful: They transgress because they have many opportunities to do so. More than most other businesspeople, they are always “on.”

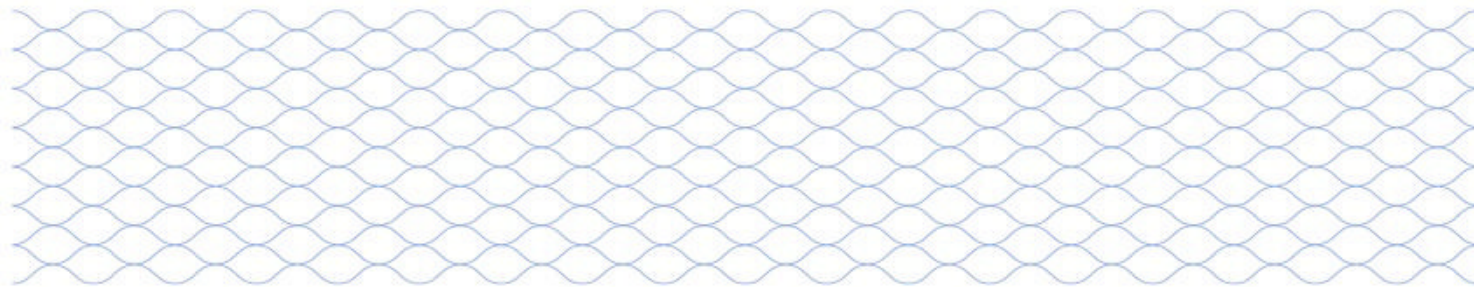
The second reason is that entrepreneurs have a lot on the line. As a group they stand to gain great wealth, but it’s unevenly distributed. Research shows that the median entrepreneur has poor risk-adjusted returns—statistically, founders would be better off working at an established company or holding a diversified index fund than holding their own equity. But what the median lacks, the maximum makes up for. A small percentage of entrepreneurs become enormously wealthy. Indeed, entrepreneurs dominate the ranks of the world’s richest people.

A thousand things must go right to earn such outsize rewards, and in any one meeting, a founder’s fortunes might balance on a knife’s edge. Failure can mean not just missing an enormous windfall but also letting down friends, family, employees, and investors. With stakes that high, it can be tempting to bend the truth.

The third reason entrepreneurs are prone to deception is that it’s relatively easy for them to get away with it. Entrepreneurship has a great deal of what economists call



ETHICS



“information asymmetry.” Typically, founders lead private, closely held companies and possess lots of information that others—investors, customers, employees—don’t have. The leaders of public companies have extensive transparency requirements and are under intense scrutiny; if they tell a lie, many people are in a position to discover it. But even in a venture-backed start-up with board oversight, only a tiny circle of people are privy to the company’s internal workings, so deceptions can easily evade detection or go unchallenged. And because start-ups are, on average, staying private longer than they used to, such opacity is increasingly common and persistent.

None of this is to say that entrepreneurs are less ethical than other businesspeople. What little research is available suggests that on average, they have *higher* moral standards than corporate managers do. But the pressures that might tempt them to be less than completely truthful are enormous—and decades of psychological study have shown that even people with high moral standards are likely to transgress in contexts in which ethical lapses are common and tolerated.

How Entrepreneurs Rationalize Their Lies

Most founders who shade the truth under such pressures probably don’t see themselves in a poor light. They often justify their actions through some combination of three rationalizations that are closely related to common ethical theories about what makes actions right or wrong. But each falls apart under even casual philosophical scrutiny.

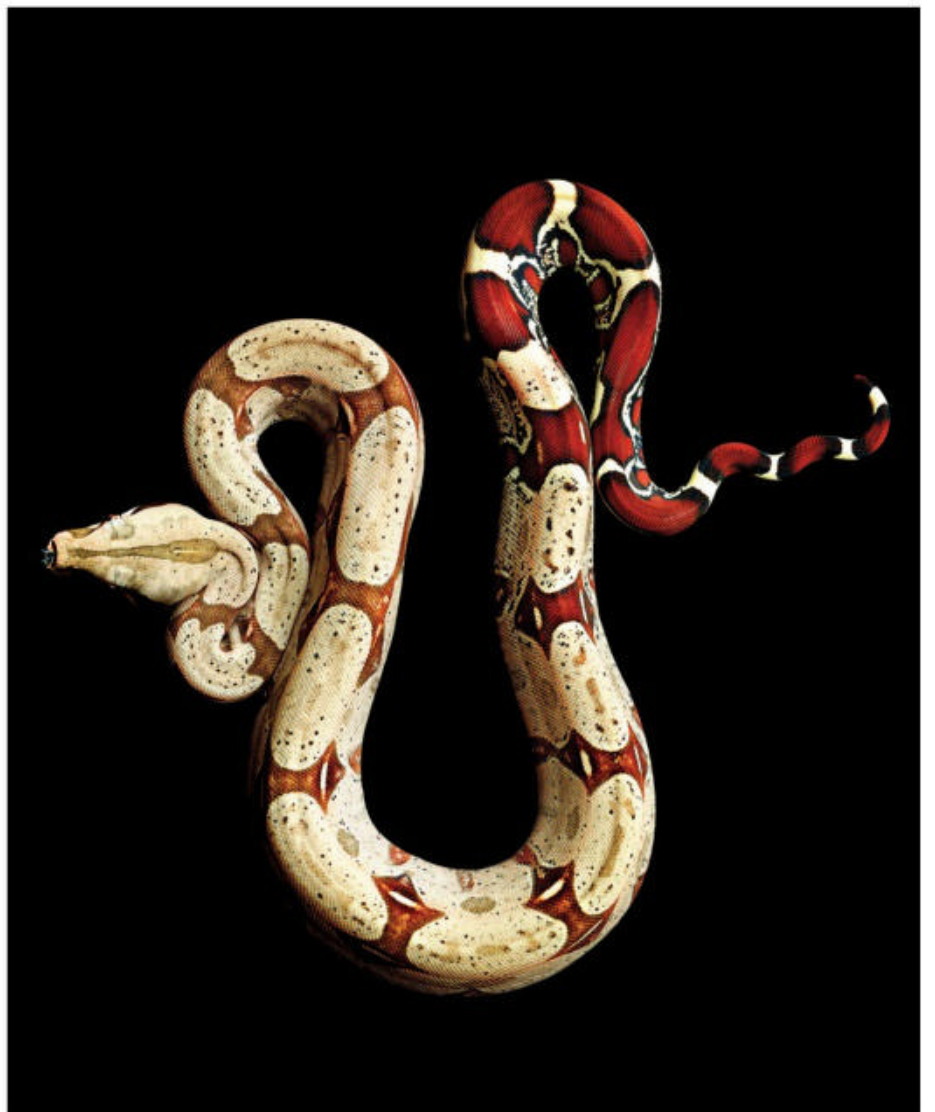
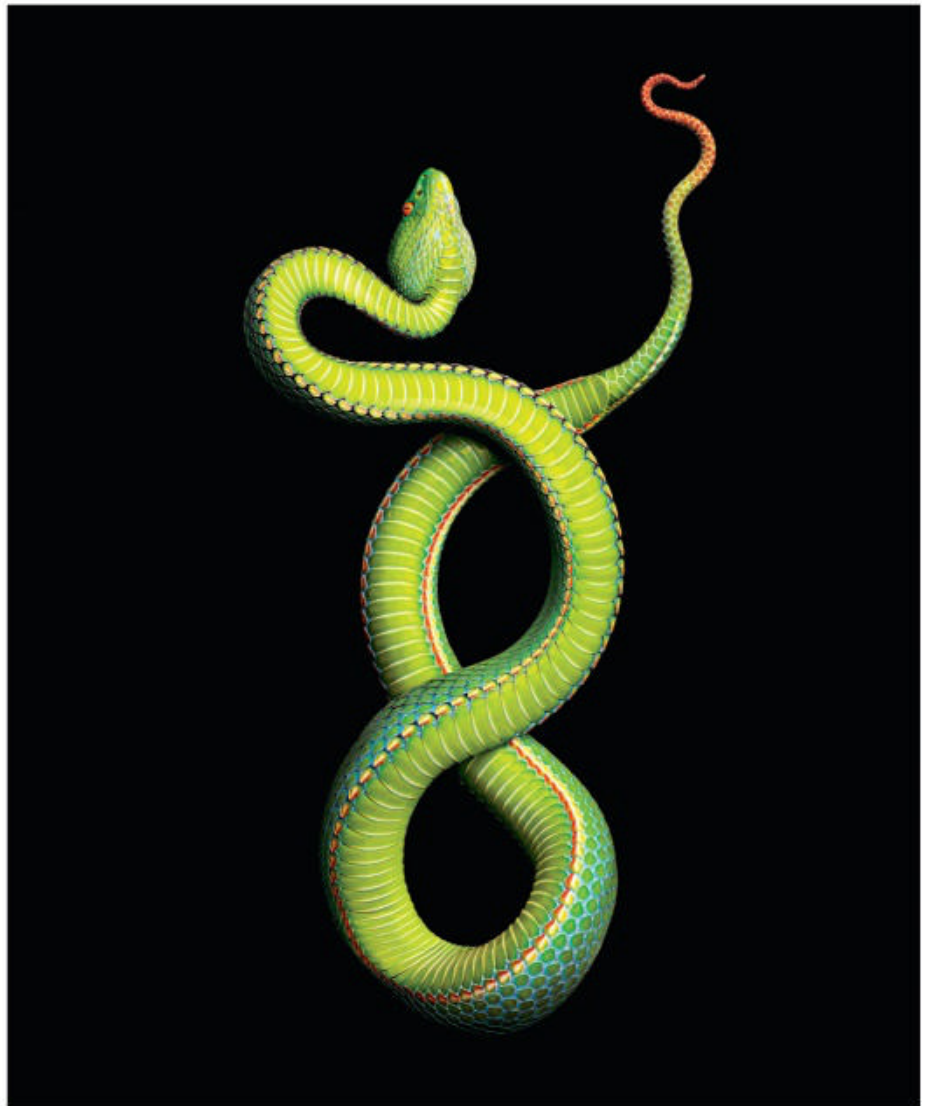
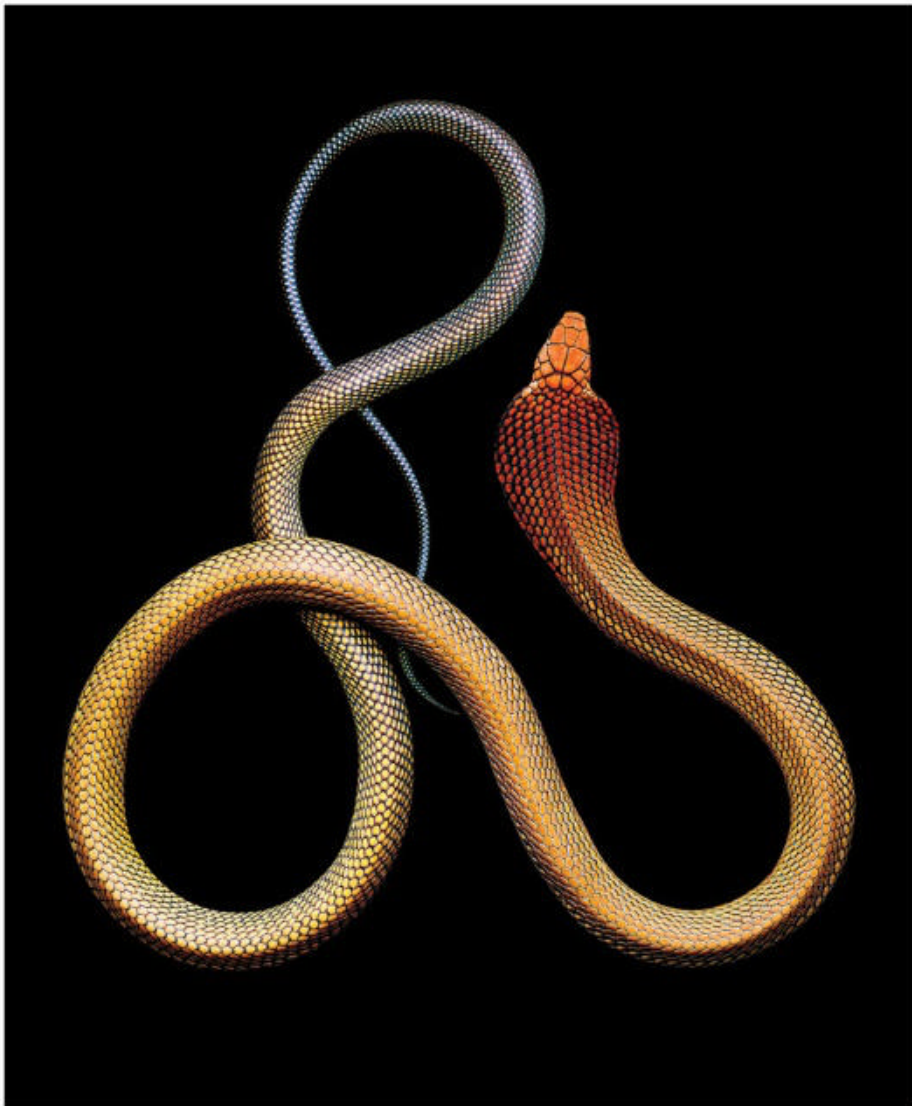
“It’s for the greater good.” In 2018 *Entrepreneur* interviewed Gary Hirshberg, who built Stonyfield Farm from a two-person (and seven-cow) side hustle into one of the world’s leading purveyors of organic yogurt. Stonyfield’s success didn’t always seem destined. Hirshberg recounted a series of dire moments and the deceptions that saved the company, including lies to vendors and a loan officer at the Small Business Administration. He offered several rationales, all common among entrepreneurs and related to well-known theories of ethics.

“I think lying, if we want to call it that, which I guess is what it should be called, for the common good, because in the end it didn’t help the vendors for me to go under either, is OK as long as you ultimately do deliver,” Hirshberg explained. This “ends justify the means” rationalization harks back to the utilitarianism of Jeremy Bentham and John Stuart Mill, according to which an action should be judged solely on the basis of its consequences. “[I]t is the greatest happiness of the greatest number that is the measure of right and wrong,” Bentham wrote.

“I’m protecting my people.” A variant of the “ends justify the means” rationalization, this was invoked by Hirshberg as well. “You do whatever the heck you have to do to make it,” he said. “We were fighting for employees’ jobs and our mothers’ and mothers-in-laws’ and friends’ investments. Fighting for our lives. And I think anything goes, as long as you’re not injuring anybody.” Friends, family, and early equity investors and employees are often prioritized over stakeholders appearing on the scene later and at a further remove—in Hirshberg’s case, the SBA and his vendors.

Of course, entrepreneurs can’t know whether their lying will lead to better outcomes for their stakeholders or result in the greatest happiness for the greatest number. They are subject to forces beyond their control, and many who lie “for the common good” will see their ventures fail. When that happens, it comes at the expense of stakeholders who were tricked into supporting them or harmed by risks they weren’t given full and honest knowledge of.

“Everybody does it.” Hirshberg said of his vendors, “It’s not like they haven’t seen it before.” According to this view, reality distortion is merely part of the game, like “puffery” in advertising and bluffing in poker; it’s not prohibited by the rules, and each person playing is responsible for knowing those rules. Sometimes the obfuscation is vague: During tech bubbles, some start-ups with only a small IT component tried to classify themselves as tech companies, because that would boost their valuation. Other times the fudging is more explicit, as when founders exaggerate anticipated revenue because they expect that investors will discount their numbers. In that scenario, a founder might reason, *I have to say we will generate \$50 million a year, because investors are going to discount the figure and hear \$5 million a year; everybody knows that.* Founders might also massage their financial models





Wise entrepreneurs surround themselves with cofounders, mentors, board members, and investors who will help them become their best selves.

to produce outcomes they think VCs expect: a 10x return, a multibillion-dollar market. Those who don't exaggerate may rightly fear putting themselves at a disadvantage.

Hirshberg is a successful entrepreneur, a prolific philanthropist, and no doubt a well-meaning soul. His comments capture the pressures all entrepreneurs feel and the rationales that can lead them to shade the truth. But they ultimately fail to hold water; they are excuses rather than sound arguments. They shift the responsibility for decision-making onto the supposedly uncontrollable and sometimes immoral norms of abstract institutions. "Business is business," founders might say, absolving themselves of murky choices. But in our view, the business and start-up domains are no different from the rest of life, and they should be governed by the same ethics.

The Honest Entrepreneur

Most entrepreneurs want to engender trust in others and prove themselves worthy of that trust. Few *aspire* to be scoundrels. Evidence suggests that for the vast majority of people, lying and deception cause considerable stress. For example, studies have shown that stress related to ongoing ethical dilemmas decreases job satisfaction and is a leading cause of burnout.

There is a better way, and it involves fostering virtue in all aspects of life, including the professional realm. In this Aristotelian worldview, actions are right if they are what a good (virtuous) person would do. In what follows we offer two practices from exemplary entrepreneurs whom we've had the pleasure of teaching, hosting, or collaborating with.

Show your evidence and assumptions. When entrepreneurs paint a picture of what could be, that picture is not fabricated wholesale; it's an evidence-based guess. The evidence consists of the entrepreneurs' experiences, primary data collected through experiments, traction gained, and third-party data—in short, things they know. The guesses are things they don't yet know but believe or hope to be true.

Not everyone draws the same conclusions from such inputs. Entrepreneurs owe transparency and truthfulness to those being asked to commit themselves or their resources to the venture. Of course, they should present a compelling



vision. But they should also present the evidence and assumptions that support that vision. The principle is similar to the instructions given by eighth-grade algebra teachers: Show your work. A good venture capitalist will question a founder's assumptions at pitch meetings—but not all VCs do, especially if they're courting a start-up that's in high demand. And prospective employees, partners, and other

stakeholders often aren't given an opportunity to closely examine the evidence and assumptions and form their own conclusions about the company, team, or product they're being asked to support.

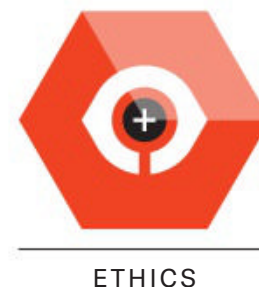
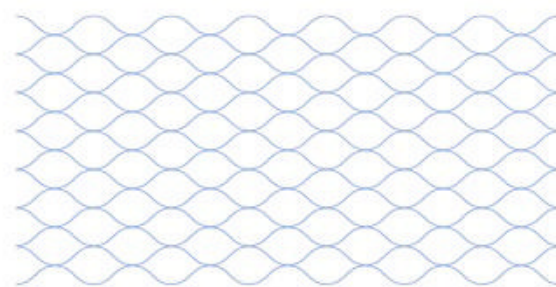
Being compelling and being forthright can seem at odds with each other. In some contexts, caveats and discussions of risks are inappropriate. A founder who lucks into an elevator ride with an investor simply conveys the compelling story. And in casual conversation, what's relevant is the vision. Leaving out the risks and the downside potential is expected and not in any way deceptive.

But in a context where analysis and evaluation of the opportunity are the focus, such as a formal pitch or a conversation with a potential hire, entrepreneurs must articulate evidence and assumptions and yet still be persuasive. We propose a "conclusion sandwich." The best entrepreneurs begin and end with their conclusion—the extrapolation—and place their evidence and assumptions in the middle. A founder might say, "We'll make about \$X million next year in gross revenue. Let me show you the evidence we have and the assumptions that support this." After running through the calculations, the founder might finish by asserting, "Therefore, we believe \$X million is a reasonable estimate." Listeners won't miss the takeaway but are free to reach their own conclusions.

Surround yourself with people who will help you be your best. A mountain of psychology research shows that our social circles influence our morality. Acts that those around us commit or condone become acceptable to us over time, while acts they condemn become unacceptable. So wise entrepreneurs surround themselves with cofounders, mentors, board members, and investors who will help them become their best selves.

Investors are particularly important in this regard. An entrepreneur might launch a handful of ventures in a lifetime, but the most experienced investors participate in hundreds. They witness the ordeals of many founders in many markets over many years and accumulate wisdom that founders can't replicate. A good investor is able to "pattern match," is sensitive to the moral dimensions of particular ordeals, and knows what courses of action are "right" and have the best outcomes. The best investors help entrepreneurs heed the better angels of their nature.

The wrong investors can be a disaster. This is especially apparent among those who prioritize growth above all else. Consider the pairing of WeWork cofounder Adam Neumann with SoftBank's Masayoshi Son. In their first meeting, Son is said to have expressed dissatisfaction with Neumann's level of intensity and urged him to be even crazier. Neumann obliged. The ensuing SoftBank-funded expansion of WeWork was outlandish, to say the least; it included self-dealing



(Neumann trademarked the word "We" and sold it to the company for nearly \$6 million) and extravagant expenditures (a \$60 million private jet). WeWork became the United States' most valuable unicorn, fueled in part by Neumann's messianic charisma and powerful reality distortion field. It reportedly took just moments for him to persuade investors to fund his vision. He was known, and is now lampooned, for over-the-top claims about the company (for example, framing it not as a real estate subletter but as a "state of consciousness") and what it could accomplish (solving the problem of orphaned children, for one). Still, Neumann's WeWork nearly reached its IPO before imploding. (As of this writing, a far more modest incarnation of the firm, under new leadership, was preparing to go public in a merger with a special-purpose acquisitions company.)

IT MAY BE tempting to think that departures from the truth are just part of doing business—that we operate in a no-holds-barred capitalist arena in which all contestants are responsible for their own welfare and know the rules of the game. Unfortunately, such cynicism feeds on itself; when we encounter dishonesty or scandal, we become disillusioned and are more likely to engage in such behavior ourselves.

Entrepreneurs face particular pressures to lie. Vying for a fixed pool of VC money, often working to secure returns for friends and family, and chasing dreams of greatness, they may feel they will be disadvantaged if they pursue their ventures with a vigorous dedication to the truth. Understanding the forces that tempt them to lie and the tactics that may help them remain virtuous can reduce the deception that's all too common in this crucial part of the economy. ☹

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LEADERSHIP



PHOTOGRAPHER CELESTE SLOMAN

“I’m Here
Because
I’m As Good
As You”

The HBR Interview
with **Ursula Burns**





LEADERSHIP

The HBR Interview with *Ursula Burns*

In 2009 **Ursula Burns** was named CEO of Xerox, becoming the first Black woman to head a *Fortune* 500 company. It was the culmination of an amazing life journey, from a Manhattan tenement to the C-suite of one of America's most iconic companies. She led Xerox for seven years, stepping down in 2016 after a bruising battle with the activist investor Carl Icahn, which led to the company's breakup. Burns subsequently served as CEO of the global telecommunications firm Veon and still sits on several major corporate boards. She is an outspoken champion of inclusive capitalism and racial equity, themes that animate her just-published memoir, *Where You Are Is Not Who You Are*. She recently spoke from her home in London with HBR editor in chief **Adi Ignatius**. Here are excerpts from the conversation.

HBR: The corporate world has changed a lot in the few years since you left Xerox. CEOs are responding to broader stakeholder demands and speaking up on social and political issues. What does good leadership look like in this multistakeholder world?

BURNS: When I was CEO, the job was relatively easy. You had to produce the highest possible profits and the highest possible share price—end of discussion. Now it's a more intellectual game, and you have to communicate more widely than ever before. You have to balance how much profit you make and how much cash you generate against how much of a positive impact you can have on society, your employees, and the communities where you do business.

Why do you think CEOs now have to take all this into account? Society—and by that I mean the human population, governments, employees—is starting to question traditional approaches. People are starting to ask why a CEO makes tens of millions of dollars while a critical worker doesn't get paid a living wage. The pandemic brought these fundamental inequities to light: The “really important” guys who get paid millions of dollars stayed in their homes, but the guys who make \$10 an hour, doing things like pushing gurneys down hospital corridors, had to come to work. And amid all that we saw yet another Black man killed by a person in authority. A lot has happened. If we all get the vaccine and simply return to the way things were, then shame on us.

Income inequality is a tough issue. You were lucky enough to make megabucks as a CEO. That's how the system works, but it's also part of the problem you identify. No one who is offered that kind of money ever says no thanks. So how can the system change? It will take a coalition to move things forward. You said it right: There won't be a CEO who agrees to go first. I'm on some corporate boards, and when you're determining CEO salary, you don't want your guy to be the highest paid. But you also don't want him or her to be the lowest paid. I tend to be nervous about government involvement, but in this case I think governments can help ratchet back executive salaries and overall compensation. It won't happen voluntarily.

Should we think about Peter Drucker's old maxim that chief executives shouldn't make more than 20 times what



“People are starting to ask why a CEO makes tens of millions of dollars while a critical worker doesn’t get paid a living wage. The pandemic brought these inequities to light.”

an average worker makes? I don’t know if 20 times is right. Maybe 100? There have to be guidelines, and there has to be a maximum. To understand the problem, just think about bank executives, for example. If you’re an engineer, you create something. If you’re a scientist, you cure something. Bankers basically don’t do anything. They arbitrate risk and make tens of millions. I know I’m going to get in trouble for saying this, but it’s ridiculous.

Why did you decide to leave Xerox when you did? It appears to have been a combination of personal reasons and a reaction to the outcome of Carl Icahn’s campaign against Xerox leadership. Does that sound right? Yes. It was the right time. It was a perfect storm of events. Some of it was good and cleared up some things for me. And some of it was bad. My husband had health issues. My kids were up to...you name it. And then we had to deal with an activist. After that it seemed like the right time to hand things over to my number two.

What’s it like going head-to-head with an activist? You’re dealing with an aggressive adversary who can say whatever he or she wants, whether it’s true or untrue. My natural tendency if somebody punches me in the nose is to punch them right back. I will literally fight you on the street. But that is obviously not a good idea if you’re the CEO of a company that has 80,000 employees. An activist is generally looking for a quick return. I knew that things were more complicated than that. We had to invest hundreds of millions of dollars in technology; we had employees all over the world whom we actually cared about. If the only goal is to maximize shareholder value, my daughter could run the company—could run any company. But that’s not the only goal.

What’s your advice for others who find themselves in such a position? Get help—from somebody outside the company. Everyone inside is feeling the same pressure you are. So find somebody who has experience with this but is not burdened with your history. In the end it’s worth fighting for the “stakeholder view,” even if it causes dislocation in the company.

In an interview 15 years ago you said you couldn’t really tell how being both Black and female affected your career trajectory, because you’d always been Black and female and

had nothing to compare it with. You also said you detected zero difference in how you were treated versus how other newly hired engineers were treated. Now that you have some distance and perspective, do you still feel the same way? I largely do, especially as I look back on the early part of my career. Xerox had an enlightened founder, Joseph Wilson, so by the time I entered the company, in 1980, it had already broken some ground. But as I got more senior in the company, and as the lanes got narrower, it became clearer that race and gender were issues, sometimes in positive ways, sometimes in negative ones.

How prevalent was prejudice in your nonprofessional life? When I was growing up, I came face-to-face with racism or sexism almost every day. I became numb to it. I vividly remember walking into Barneys, the clothing store, with my son one day. I was already a senior executive and making quite a bit of money, but it was the typical situation where somebody is watching you the whole time. I’d experienced that a lot, but that was the first time I said, “This just isn’t right.” Sure, we feel good when other people say, “Oh, yeah, she’s one of us.” But we need to get to a point where this elite society structure no longer exists.

You write that your peers at college could deal with your success as a Black woman only by mentally elevating you to a kind of exceptional status—viewing you as almost freakishly gifted—meaning they couldn’t accept that other talented, hardworking Black people could make it as well. Did you experience that throughout your life? Absolutely. Even in the latter part of my career, people would say, “Oh my God, you’re so amazing.” I finally realized that what they were saying, without knowing it, is that in order for me to lead a task force, or to be CEO, they would have to identify me as “spectacular” or else acknowledge that others who look like me, who act like me, who come from where I come from, can be at the table as well. I’m not amazing. I’m here because I’m as good as you.

In the most powerful passage of your book you write, “Our entire lives as Black people and as women have been spent conforming to a structure built by white men on the backs of Black people and other minorities—a structure that we can’t be completely a part of.” That’s a candid indictment,



LEADERSHIP

The HBR Interview with *Ursula Burns*

especially from a woman who rose to the level that you did. How in the world can we make progress with a problem that runs so deep? Numbers, numbers, numbers. One of the things you find when you go to a reasonably integrated place is that the dynamic is different. The language is different. Everything is different. The way we get diversity to be normal is to just do it. We have to be affirmative in our actions (this is different from affirmative action) to ensure that we increase diversity, that we actually have equity, that we are inclusive. How? Start close to home. Fix your shop.

Numbers really do help. If you are one or two of 40 or 50, you're a freak show. By the way, that can be advantageous. For 10 years at Xerox, I was the only Black woman in the room. So if I raised my hand, I was always called on, because, I mean, you couldn't miss me. But we have to get to the point where that's not an anomaly.

You've also been outspoken on gender issues. Would you define "female leadership" as different from a traditionally male approach? Many natural "female" traits make women more appropriate leaders for this moment: We're more inclusive, less brutal, more nuanced about decision-making. Women have a healthy, natural sense of doubt. I meet with other successful women, and we talk about whether we could be doing things better, whether we're doing enough. At night I lie in bed and list the things I did that day that were bad. I can't even remember the things I did well. And women are still largely responsible for the nurturing of their families. It's part of our genetic structure. That means we take responsibility for nurturing people to feel included, to feel valued.

Are you seeing progress in the workplace for other Black women? This is a great time for African American women, because we have this thing called *grit*. White women discard you. Black men discard you. White men don't even know you're there. So you have to have grit to keep pushing, keep pushing, keep pushing.

In your book there's a revealing account of a conversation you had with Sister Rosemary, your high school guidance counselor at the Catholic school you attended in Manhattan. She said you had three options for your life: You could become a teacher, a nurse, or a nun. How did she not include

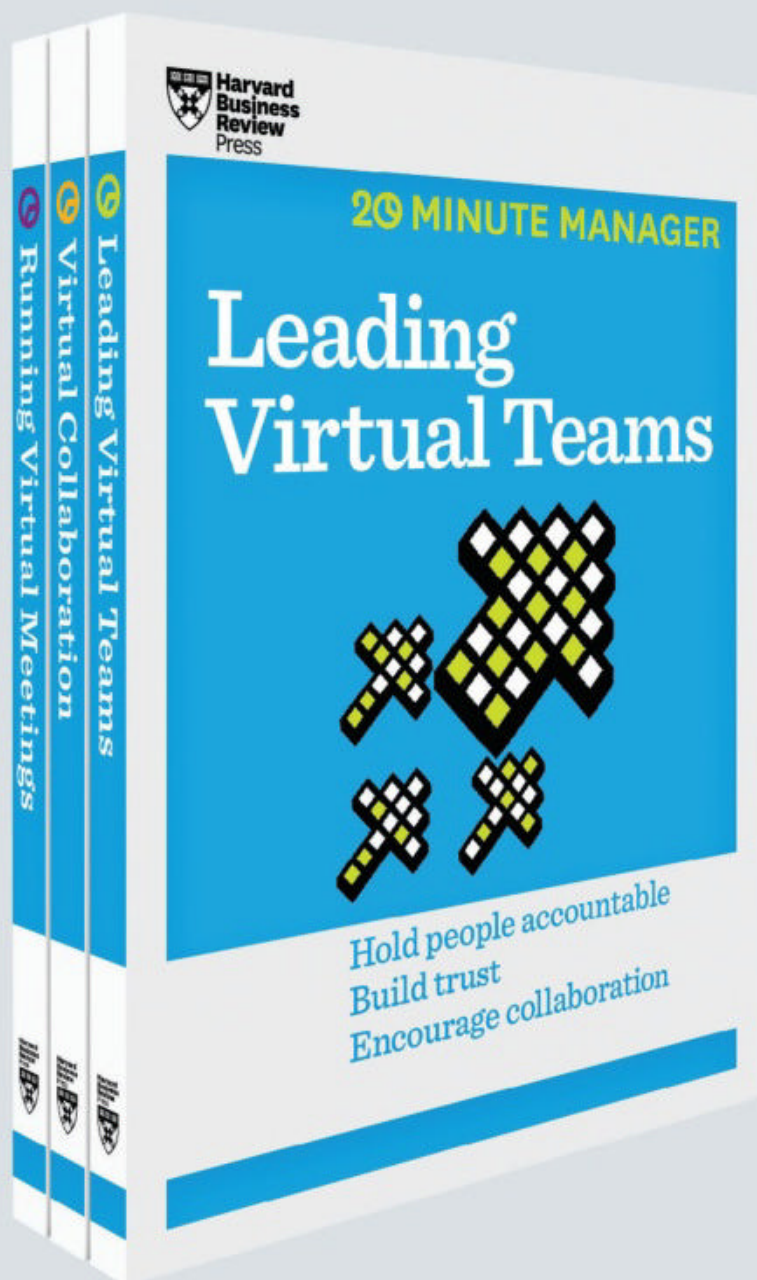
CEO of Xerox? That was in 1972, and if you were female, you had a very narrow, well-defined set of choices. I remember that when I was seven or eight, I asked a question of a visiting geography teacher. Afterward he told me that I was smart, that I had asked a good question. But he said I had three things going against me: I was Black, poor, and a girl. He meant to compliment me, but he was saying the doors were closed: "You're smart, but you can't do anything with it." That stuck with me for a long time. I eventually came to realize that I really liked those things. Well, not being poor. But I really liked being Black. And I really liked being a girl.

Having read your memoir, I suspect it captures the real you. There are f-bombs. There are candid critiques of the Trump presidency. There's self-flagellation. What was your goal in writing the book? I wanted to present Ursula Burns in ordinary human terms. I'm often described in either an overly harsh or an overly idealized way. When you review my life, you might say it seems well planned. But I was just going from one day to the next, keeping some basic beliefs and ideals in mind. People say, "God, you had this spectacular life," and I say, "Yeah, it was pretty good." But it was just a life. It was nothing crazy.

As I read the book, even though I knew you would end up as CEO of Xerox, I kept thinking, *She's going to blow it*. Along the way you describe situations where you were too blunt or too impatient or doing something dicey. How in the world did you manage to make it? Life is often blunt and dicey, and that's what I wanted to show. We're all human. We all make mistakes. We misspeak. We act impatient. In my journey I've made more good decisions than bad. But I didn't make zero bad decisions. I just kept pushing.

You write that you're optimistic about America and about the world. What's the case for optimism? First, we survived the Trump years without total revolution. It's been comforting to see Americans showing decorum and respect for one another and not rioting in the streets. Second, we're engaged in a national discourse about racial equity, social justice, and economic equality. People at least realize there are problems. And third, I believe that people are fundamentally good. We just need to take better care of one another. ☺

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MANAGING YOURSELF

The Science of Strong Business Writing

Lessons from neurobiology

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Experience

Advice and
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TRONG

WRITING SKILLS are essential for anyone in business. You need them to effectively communicate with colleagues, employees, and bosses and to sell any ideas, products, or services you're offering.

Many people, especially in the corporate world, think good writing is an art—and that those who do it well have an innate talent they've nurtured through experience, intuition, and a habit of reading often and widely. But every day we're learning more about the science of good writing. Advances in neurobiology and psychology show, with data and in images, exactly how the brain responds to words, phrases, and stories. And the



When we read emotionally charged material, we reflexively react with feelings—fear, joy, awe, disgust, and so forth. Reason follows.

criteria for making better writing choices are more objective than you might think.

Good writing gets the reader's dopamine flowing in the area of the brain known as the reward circuit. Great writing releases opioids that turn on reward hot spots. Just like good food, a soothing bath, or an enveloping hug, well-executed prose makes us feel pleasure, which makes us want to keep reading.

Most of the rules you learned in school—"Show, don't tell" or "Use the active voice"—still hold. But the reasons they do are now clearer. Scientists using MRI and PET machines can literally see how reward regions clustered in the midbrain light up when people read certain types of writing or hear it spoken aloud. Each word, phrase, or idea acts as a stimulus, causing the brain to instantly answer a stream of questions: Does this promise value? Will I like it? Can I learn from it?

Kent Berridge, a pioneering University of Michigan psychologist and neuroscientist, notes that researchers originally believed that the reward circuit largely handled sensory cues. But, he explains, "it's become clear in the past 50 years from neuroimaging studies that all kinds of social and cultural rewards can also activate this system."

Whether it's a succinct declarative statement in an email or a complex argument in a report, your own writing has the potential to light up the neural circuitry of your readers' brains. (The same is true if you read the words to an audience.) The magic happens when prose has one or more of these characteristics: It's simple, specific, surprising, stirring, seductive, smart, social, or story-driven. In my work as an author and a

writing coach for businesspeople, I've found those eight S's to be hallmarks of the best writing. And scientific evidence backs up their power.

SIMPLICITY

"Keep it simple." This classic piece of writing advice stands on the most basic neuroscience research. Simplicity increases what scientists call the brain's "processing fluency." Short sentences, familiar words, and clean syntax ensure that the reader doesn't have to exert too much brainpower to understand your meaning.

By contrast, studies have shown that sentences with clauses nested in the middle take longer to read and cause more comprehension mistakes. Ditto for most sentences in the passive voice. If you write "Profits are loved by investors," for example, instead of "Investors love profits," you're switching the standard positions of the verb and the direct object. That can cut comprehension accuracy by 10% and take a tenth of a second longer to read.

Tsuyoshi Okuhara, of the University of Tokyo, teamed with colleagues to ask 400 people aged 40 to 69 to read about how to exercise for better health. Half the group got long-winded, somewhat technical material. The other half got an easy-to-read edit of the same content. The group reading the simple version—with shorter words and sentences, among other things—scored higher on self-efficacy: They expressed more confidence in succeeding.

Even more noteworthy: Humans learn from experience that simpler explanations are not always right, but

they *usually* are. Andrey Kolmogorov, a Russian mathematician, proved decades ago that people infer that simpler patterns yield better predictions, explanations, and decisions. That means you're more persuasive when you reduce overdressed ideas to their naked state.

Cutting extraneous words and using the active voice are two ways to keep it simple. Another tactic is to drill down to what's really salient and scrap tangential details. Let's say you have researched crossover markets and are recommending options in a memo to senior leaders. Instead of sharing every pro and con for each market—that is, taking the exhaustive approach—maybe pitch just the top two prospects and identify their principal pluses and minuses.

SPECIFICITY

Specifics awaken a swath of brain circuits. Think of "pelican" versus "bird." Or "wipe" versus "clean." In one study, the more-specific words in those pairs activated more neurons in the visual and motor-strip parts of the brain than did the general ones, which means they caused the brain to process meaning more robustly.

Years ago scientists thought our brains decoded words as symbols. Now we understand that our neurons actually "embody" what the words mean: When we hear more-specific ones, we "taste," "feel," and "see" traces of the real thing.

Remarkably, the simulation may extend to our muscles too. When a team led by an Italian researcher, Marco Tettamanti, asked people to listen to sentences related to the mouth, hand, and



leg—“I bite an apple”; “I grasp a knife”; “I kick the ball”— the brain regions for moving their jaws, hands, and legs fired.

Using more-vivid, palpable language will reward your readers. In a recent letter to shareholders, Amazon CEO Jeff Bezos didn’t say, “We’re facing strong competition.” Channeling Tettamanti’s research, he wrote, “Third-party sellers are kicking our first-party butt. Badly.”

Another specificity tactic is to give readers a memorable shorthand phrase to help them retain your message. Malcolm Gladwell coined “the tipping point.” Management gurus W. Chan Kim and Renée Mauborgne came up with “blue ocean strategy”; essayist Nassim Nicholas Taleb, “black swan event.”

SURPRISE

Our brains are wired to make nonstop predictions, including guessing the next word in every line of text. If your writing confirms the readers’ guess, that’s OK, though possibly a yawner. Surprise can

make your message stick, helping readers learn and retain information.

Jean-Louis Dessalles, a researcher in artificial intelligence and cognitive science at Télécom Paris, conducted an experiment that demonstrated people’s affinity for the unexpected. He asked participants to read short, unfinished narratives and consider different possible endings for each. For example, one story read: “Two weeks after my car had been stolen, the police informed me that a car that might be mine was for sale on the internet....The phone number had been identified. It was the mobile phone number of....” The choices were (a) “my office colleague,” (b) “a colleague of my brother’s,” or (c) “someone in my neighborhood.” For 17 of 18 stories, the vast majority of people preferred the most unexpected ending (in this example, the work colleague). They didn’t want a story that fulfilled their predictions.

So reward your readers with novelty. Jonah Berger and Katherine Milkman, of the Wharton School, saw the impact of



Experience

surprising content when they examined nearly 7,000 articles that appeared online in the *New York Times*. They found that those rated as surprising were 14% more likely to be on the newspaper’s “most-emailed” list.

Readers appreciate unusual word-play, too. A good example is John McPhee’s characterization of World War II as a “technological piñata.” Or consider how a Texas-based conglomerate described itself in its 2016 shareholder letter: “Think of Biglari Holdings as a museum of businesses. Our preference is to collect masterpieces.”

STIRRING LANGUAGE

You may think you’re more likely to persuade with logic, but no. Our brains process the emotional connotations of a word within 200 milliseconds of reading it—much faster than we understand its meaning. So when we read emotionally charged material, we reflexively react with feelings—fear, joy, awe, disgust, and so forth—because our brains have been trained since hunter-gatherer times to respond that way. Reason follows. We then combine the immediate feeling and subsequent thought to create meaning.

How sensitive are we to emotion? Experiments show that when people hear a list of words, they often miss a few as a result of “attentional blinks” caused by limits in our brain processing power. But we don’t miss the emotionally significant words. With those there are no blinks.

So when you write your next memo, consider injecting words that package feeling and thought together. Instead of saying “challenge the competition,”



Experience

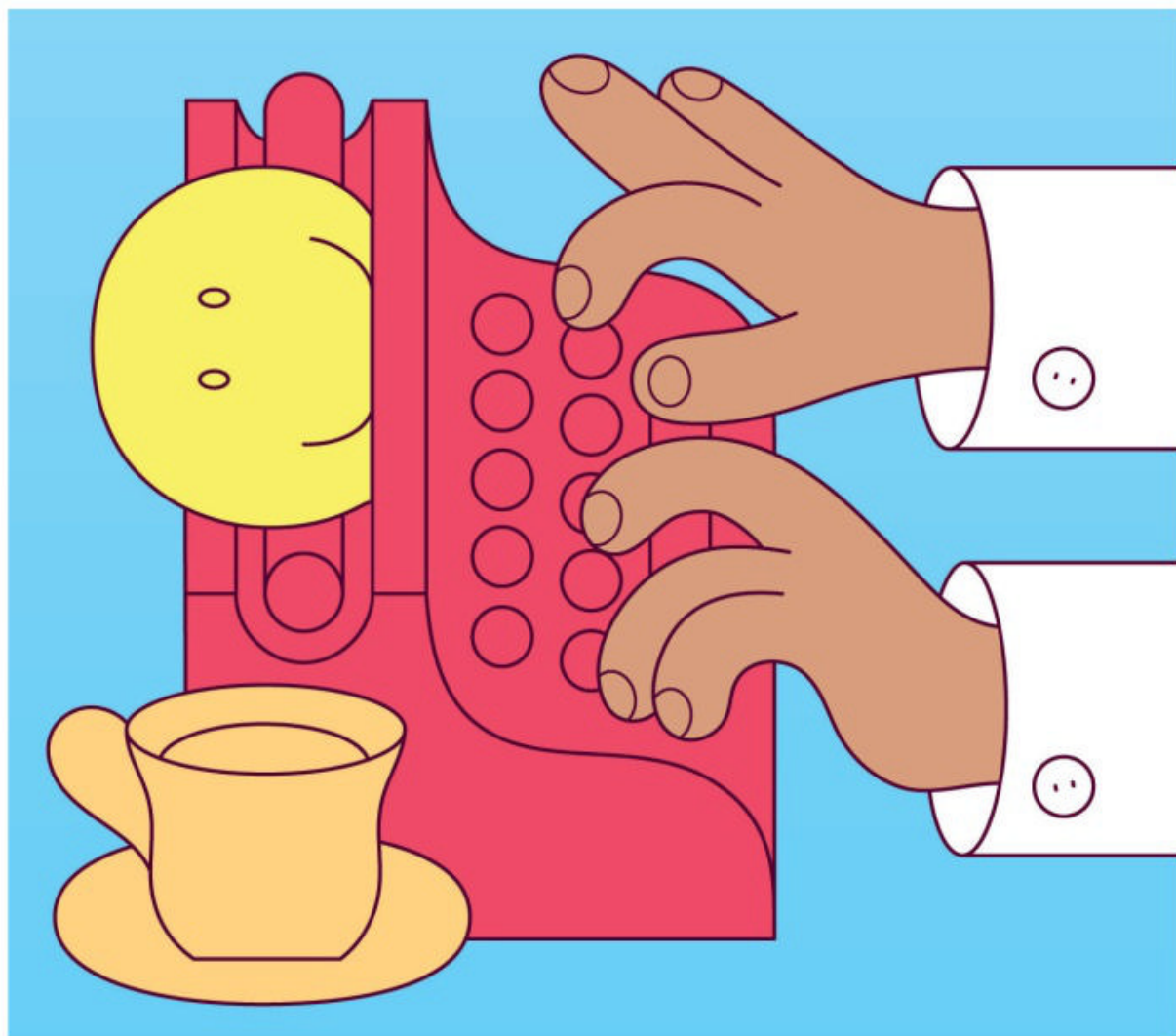
you might use “outwit rivals.” In lieu of “promote innovation,” try “prize ingenuity.” Metaphor often works even better. Canadian researchers Andrea Bowes and Albert Katz tested relatively bland phrases like “What a very good idea!” and “Be careful what you say” against more-evocative expressions like “What a gem of an idea!” and “Watch your back.” Readers reacted more strongly to the latter.

Just a small touch can drive the neural circuits for emotion. So before you start composing, get your feelings straight, along with your facts. Zeal for your message will show through. And if you express your emotion, readers will feel it.

SEDUCTIVENESS

As humans, we’re wired to savor anticipation. One famous study showed that people are often happier planning a vacation than they are after taking one. Scientists call the reward “anticipatory utility.” You can build up the same sort of excitement when you structure your writing. In experiments using poetry, researchers found that readers’ reward circuitry reached peak firing several seconds before the high points of emphatic lines and stanzas. Brain images show preemptive spikes of pleasure even in readers with no previous interest in poetry.

You can generate a similar reaction by winding up people’s curiosity for what’s to come. Steve Jobs did this in his famous “How to Live Before You Die” commencement address to Stanford University’s class of 2005. “I never graduated from college,” he began. “Truth be



told, this is the closest I’ve ever gotten to a college graduation. Today I want to tell you three stories from my life. That’s it. No big deal. Just three stories.” Are you on the edge of your seat to hear what the three stories are?

So start a report with a question. Pose your customer problem as a conundrum. Position your product development work as solving a mystery. Put readers in a state of uncertainty so that you can then lead them to something better.

SMART THINKING

Making people feel smart—giving them an “aha” moment—is another way to please readers. To show how these sudden “pops” of insight activate the brain, researchers have asked people to read three words (for example, “house,” “bark,” and “apple”) and then identify a fourth word that relates to all three, while MRI machines and EEGs record their brain activity. When the study participants arrive at a solution (“tree”),

brain regions near the right temple light up, and so do parts of the reward circuit in the prefrontal cortex and midbrain. The readers’ delight is visible. Psychological research also reveals how people feel after such moments: at ease, certain, and—most of all—happy.

How can you write to create an aha moment for your readers? One way is to draw fresh distinctions. Ginni Rometty, formerly IBM’s CEO, offered one with this description of the future: “It will not be a world of man versus machine; it will be a world of man plus machine.”

Another strategy is to phrase a pragmatic message so that it also evokes a perennial, universal truth. The late Max De Pree, founder and CEO of the office furniture company Herman Miller, had a knack for speaking to employees this way. In *Leadership Is an Art* he wrote: “The first responsibility of a leader is to define reality. The last is to say thank you. In between the two, the leader must become a servant and a debtor.” That’s wisdom not just for business



Few things beat a good anecdote. Functional MRI scans show that when a story begins, listeners' brains immediately begin glowing in a specific pattern.

managers but for parents, teachers, coaches—anyone in a guiding role.

SOCIAL CONTENT

Our brains are wired to crave human connection—even in what we read. Consider a study of readers' responses to different kinds of literary excerpts: some with vivid descriptions of people or their thoughts, and others without such a focus. The passages that included people activated the areas of participants' brains that interpret social signals, which in turn triggered their reward circuits.

We don't want just to read about people, though—we want to understand what they're thinking as quickly as possible. A study led by Frank Van Overwalle, a social neuroscientist at Vrije Universiteit Brussel, found that readers infer the goals of people they're reading about in under 350 milliseconds, and discern their character traits within 650 milliseconds.

One way to help readers connect with you and your writing is to reveal more traces of yourself in it. Think voice, worldview, vocabulary, wit, syntax, poetic rhythm, sensibilities. Take the folksy—and effective—speeches and letters of Berkshire Hathaway CEO Warren Buffett. His bon mots include “Someone's sitting in the shade today because someone planted a tree a long time ago,” “It's only when the tide goes out that you discover who's been swimming naked,” and “Beware of geeks bearing formulas.”

Remember also to include the human angle in any topic you're discussing. When you want to make a point about a supply-chain hiccup, for example, don't frame the problem as a “trucking

disconnect.” Write instead about mixed signals between the driver and dispatcher.

Another simple trick to engage readers is to use the second person (“you”), as I've done throughout this piece. This can be particularly helpful when you're explaining technical or complicated material. For example, psychologist Richard Mayer and colleagues at the University of California, Santa Barbara, ran experiments with two versions of an online presentation on the respiratory system. Each included 100 words of spoken text paired with simple animations. But one version used the impersonal third person (“During inhaling, *the* diaphragm moves down, creating more space for *the* lungs...”), while the other was more personal (“*your* diaphragm” and “*your* lungs”). People who listened to the latter scored significantly higher than their counterparts on a test that measured what they had learned.

STORYTELLING

Few things beat a good anecdote. Stories, even fragments of them, captivate extensive portions of readers' brains in part because they combine many of the elements I've described already.

Research by Uri Hasson at Princeton reveals the neural effect of an engaging tale. Functional MRI scans show that when a story begins, listeners' brains immediately begin glowing in a specific pattern. What's more, that grid reflects the storyteller's exactly. Other research shows that, at the same time, midbrain regions of the reward circuit come to life.

Experiments by behavioral scientists at the University of Florida produced

similar results. Brain images showed heightened activity in reward regions among people who read 12-second narratives that prompted pleasant images. (A sample narrative: “It's the last few minutes of the big game and it's close. The crowd explodes in a deafening roar. You jump up, cheering. Your team has come from behind to win.”)

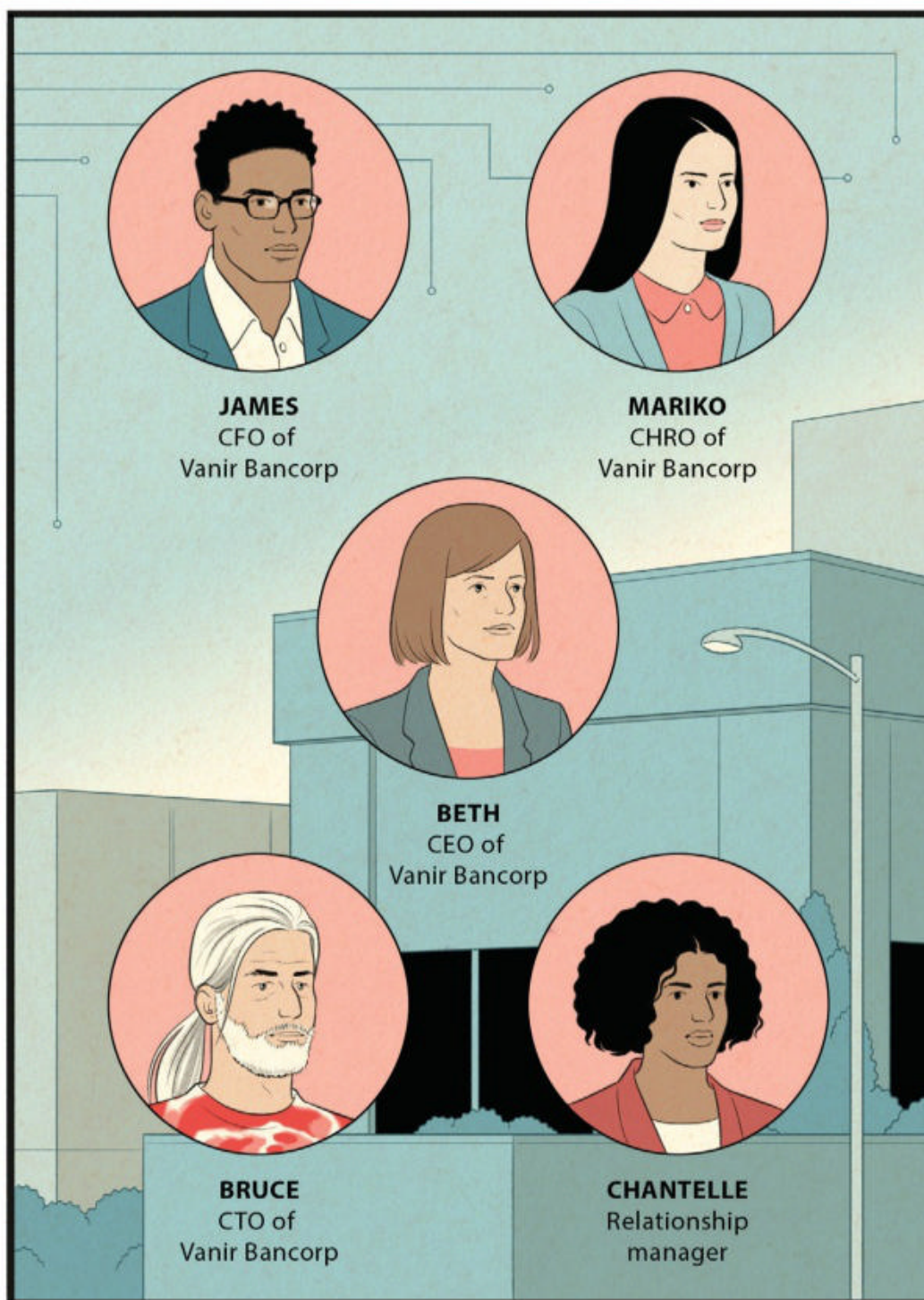
When you incorporate stories into your communications, big payoffs can result. Consider research that Melissa Lynne Murphy did at the University of Texas, looking at business crowdfunding campaigns. She found that study participants formed more-favorable impressions of the pitches that had richer narratives, giving them higher marks for entrepreneur credibility and business legitimacy. Study participants also expressed more willingness to invest in the projects and share information about them. The implication: No stories, no great funding success.

THE EIGHT S's can be your secret weapons in writing well. They're effective tools for engaging readers because they trigger the same neural responses that other pleasurable stimuli do. And you probably understand their value intuitively because millions of years of evolution have trained our brains to know what feels right. So cultivate those instincts. They'll lead you to the writer's version of the Golden Rule: Reward readers as you would yourself. 📖

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BILL BIRCHARD is a business writer and writing coach. His sixth book, tentatively titled *Eight Secrets from Science for Aspiring Writers*, is in progress.



Case Study

Will a Bank's New Technology Help or Hurt Morale?

by Leonard A. Schlesinger

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 "Athena Bancorp" (case no. 919517-PDF-ENG), by Leonard A. Schlesinger and Sarah L. Abbott, which is available at [HBR.org](https://hbr.org).

"IF WE GROW too fast, we'll break from the strain."

"If we stop growing, we'll be eaten for lunch by our competitors."

Beth Daniels, the CEO of Michigan's Vanir Bancorp, sat silent as her chief human resources officer and chief financial officer traded jabs. The trio had founded their community bank three years earlier with the mission of serving small-business owners, particularly those on the lower end of the credit spectrum. After getting a start-up off the ground in a mature, heavily regulated

industry, they were a tight-knit, battle-tested team. But the current meeting was turning into a civil war.

James Donnold, the CFO, had just presented an update on Vanir's aggressive goals: expanding to 15 branches, with loans and deposits increasing threefold in five years. Having already grown to five branches and \$180 million in assets, the bank was right on track. But, James warned, competitors were circling, and Vanir needed to stay on the offensive. It couldn't let bigger banks lure away the previously underserved



customers that it had brought into the financial system or let new “fintech” start-ups with digital-only banking services disintermediate its business. Luckily, James noted, the company’s long-awaited new enterprise IT was nearly ready to go live, and it promised to greatly reduce the staff’s workload—by, for example, using AI to automate tasks like calculating pricing and credit lines for customers.

That prediction prompted Mariko Wang, the CHRO, to let out an audible scoff. She felt that aggressive growth had already

stretched Vanir too thin and that believing IT would lighten the burden on employees was optimistic. “When was the last time a new technology created *less* work for anyone?” she asked sarcastically.¹

But then her tone turned serious, and she delivered her familiar—compelling—spiel: Working with new or underserved banking customers was extremely arduous. Vanir’s branches were open early and late to accommodate customers’ schedules. To make banking less intimidating, tellers and relationship managers were told to take as long as needed to answer people’s questions. They were trained to be unbiased, whereas some AI tools in the industry had come under criticism for discriminating against minority applicants. And that human touch was what drove growth; loan applicants often had such a great experience at Vanir that they transferred their other accounts to the bank, opened new ones, or recommended it to other small-business owners.

Vanir’s associates enjoyed above-market salaries but also worked harder than their peers at other banks. Considered “essential workers,” they’d even come in to the office during the worst months of the pandemic, managing all the loans that customers had applied for through the U.S. government’s economic relief package. But now employee engagement was down, absenteeism was up, and customers were starting to notice.² Net Promoter Scores had fallen, and comments in customer surveys included complaints like “hassled-looking teller” and “unhelpful manager.”

“Our people are our strategy,” Mariko said, locking eyes with



Experience

Beth. “Without them happily serving customers, we’re just another bank.”

OFF TO SEE THE WIZARD

Leaving the meeting, Beth felt torn. She’d started Vanir to help hardworking customers who’d been neglected by large banks and poorly served by mismanaged community-development institutions. Her father had been a general contractor, and it infuriated her that the developers he worked for seemed to have unlimited access to debt while he struggled to secure a new loan to upgrade his tools and equipment. She suspected that most of the bigger players were interested in her customers only because they needed a certain number of small-business accounts to meet regulatory mandates and keep their banking charters; after luring small clients away with introductory promotions, the large banks would give them the same shoddy service that had held her father back. Meanwhile, the fintech start-ups were low touch and untested; they could leave their clients high and dry.³

It hurt Beth’s soul to imagine that possibility, so she shared James’s fervor for quickly expanding to serve as many people as possible with the help of technology. The goal was to build a loan underwriting system that would apply proprietary algorithms to create a single score that



Case Study Classroom Notes

1. *Is this an effective meeting? How can Beth allow dissent while keeping discourse civil?*

2. *Academics who study service organizations have found a strong link between employee satisfaction and customer loyalty.*

3. *One way to make small-business customers more profitable is to force them to use self-service rather than customer service reps.*



4. Cost overruns are not unusual with enterprise IT projects. A study by McKinsey found that on average, large IT projects run 45% over budget.

5. Some economists wonder if productivity gains have slowed in developed economies because new technologies make workers more distracted, increase task switching, and create more cybersecurity challenges.

signaled whether a loan should be approved and what the credit line and the interest rate should be. That promised to free up staff to focus on the face-to-face service that Vanir had become known for.

But building the enterprise IT had taken longer and cost more than anticipated.⁴ Meanwhile, associates had become accustomed to doing the calculations and decision-making themselves, and an inefficient process had become routine. The staff also enjoyed the autonomy the process provided: Lending officers were encouraged to get to know their applicants and to combine objective criteria, such as credit scores, with subjective ones, such as personal character. Still, the strain on the employees was starting to show, and Beth took Mariko's warnings about burnout seriously.

Would a shift to the new system help or hurt Vanir's staff? Certain elements of the transition

would require lots of busywork. For instance, along with the lending algorithms, the IT team had built a customer relationship management system that would allow a review of customer profitability across multiple products. Information on that now was stored in loan officers' heads and hard drives, and getting it into the system would be laborious. As Vanir opened more branches, it would need to hire more associates, who would have to be trained (on, among other things, the new technology) by its existing staffers, further burdening them. Beth hoped that the new system's birth pains would be short-lived and quickly lead to greater efficiency and lighter workloads. But she also worried that in the long term, Vanir's earliest employees would miss the algorithm-free autonomy they'd become accustomed to.

Beth knew she needed to talk to "the wizard," her white-haired,

tie-dyed-T-shirt-wearing chief technology officer, Bruce Richards. "What's the update?" she asked as she entered his office.

"Do you want the good news or the bad news?" he replied, chuckling. Beth frowned and crossed her arms.

"OK," Bruce continued. "The good news is that the entire stack is ready to go. We can roll out tomorrow."

"And the bad news?" Beth asked.

"The bad news is that the pilot we ran in the Lansing branch uncovered some, well, resistance."

"Go on."

"The staff hated it," Bruce said. "The feedback was that no one had time to learn a complicated new system. Some people refused to attend the training. Others brought their laptops to class and worked the entire time."

"Oh," Beth said.

On her way out for the evening, Beth stops by the desk of Chantelle, a relationship manager.

How's morale?

A lot of people are struggling.

I know. But the tech solution is almost ready. Help is on the way.

What makes this bank special is that we're run by people, not by formulas. I'm worried that the algorithm will end up hurting our customers.

"This isn't unexpected!" Bruce interjected. "Learning a new system takes time and can be frustrating. You can expect a period of negative labor productivity before we see any gains, but that doesn't mean the gains won't come.⁵ What matters is that we're finally ready to launch. We can pull the trigger next week if you give us the go-ahead."

"No," Beth replied. "Hold off for now. We might have to delay. I need to think this through."

SOME FRANK FEEDBACK

Beth checked her watch as she collected her coat from her office—8:30 PM. So much for bankers' hours. As she headed out of the branch where the executive team worked, she saw relationship manager Chantelle Williams, one of her first hires, at her desk, turning over pages in a file. Beth knew that Chantelle had two

sons who'd been homeschooling through most of the pandemic.

On Chantelle's desk was one photo of her kids and another of her first Vanir client—a bakery owner who'd had trouble obtaining a loan at other banks because of his prior issues with credit card debt. Following company protocol, Chantelle had looked more closely at his situation and realized that the debt had coincided with his wife's illness four years earlier. Since that time his credit history had been spotless. Vanir had given him a loan, and in return he not only made his monthly payments on time but accompanied them with deliveries of his delicious cannoli. "I don't stay late for you," Chantelle had once told Beth after she'd thanked the manager for her long hours. "I stay late to earn school tuition for them"—she nodded to the picture of her sons—"and," she added, shifting her gaze to the photo of

the baker, "to make sure people like him can stay in business."⁶

"How are you holding up, Chantelle?" Beth asked.

"I'm living the dream, boss!" Chantelle joked, gesturing to the open file on her desk.

"No, really. How's morale?"

"Well," Chantelle said, "a lot of people are struggling. You combine the long hours with challenges on the home front, and it's tough."

"I know," Beth said. "But I just spoke to Bruce Richards, and he said the tech solution is almost ready. Help is on the way."

Chantelle sighed.

"What is it?" Beth asked. "Are you worried about the transition? There will be some work up front, but I assure you that—"

"That's not what I'm worried about," Chantelle interrupted.

"Well, then, what?"

"Look, what makes this bank special is that we are run by



6. Showing employees their positive impact on customers increases their motivation. A 2007 study found that when call center agents soliciting donations for college scholarships met students their work supported, their productivity skyrocketed.

7. How can Vanir ensure that its algorithms are free of racial or minority group bias?



Experience

people, not by formulas. We can make a human connection with our customers. I just don't think an algorithm can replace that. Truthfully, I'm worried that we're going to end up double-checking the algorithm all the time or, worse, that it will end up hurting our customers."

"Absolutely not," Beth said.

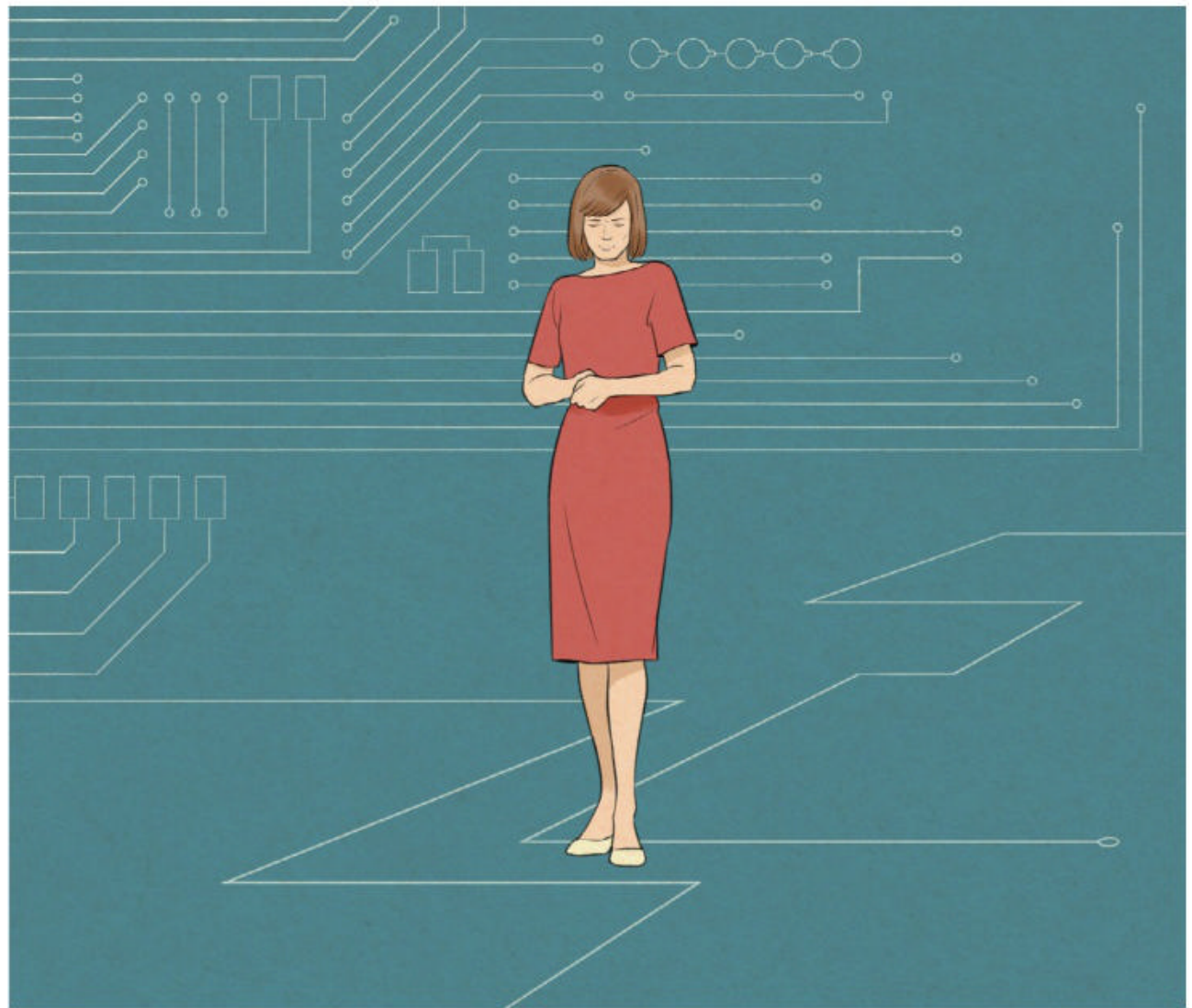
"I wouldn't let that happen."

"You know how you call Bruce 'the wizard'?" Chantelle continued. "Well, have you actually looked behind the curtain? Are you sure this technology won't just end up discriminating against the very customers we strive to serve?"⁷

After thanking Chantelle for her candor, Beth wished her a good night and headed for the exit. She knew she faced the biggest decision of her tenure as CEO. Should she rethink the implementation of Vanir's new IT system, knowing full well that her employees were stretched thin but that a delay might allow competitors to pounce on Vanir's current and future customer base? Or should she risk her employees' trust and dedication by pushing past their concerns, sticking to her tech-enabled strategy, and forging ahead? She opened the door and stepped out into the cold Detroit night. 🗝



LEONARD A. SCHLESINGER is the Baker Foundation Professor at Harvard Business School, where he serves as the chair of the school's practice-based faculty.



Should Beth go ahead with the bank's expansion plans and IT rollout? The experts respond.



BOB RIVERS is the chair and CEO of Eastern Bank.

The bank's key differentiator is at risk. Beth should hit pause on the expansion.

The clincher for me is that Vanir's Net Promoter Scores are falling. Superior customer service is the foundation of the bank's value proposition and the source

of its competitive advantage. Beth should delay the enterprise IT rollout for at least a year.

The CFO is worried that this will provide an opening for fintech and large bank competitors. I don't agree. Big banks are built for efficiency, so they typically do very little hand-holding for small-business customers and transfer much of the paperwork to them through self-service. The fintech approach is even more extreme—a customer might never interact with another human. And Vanir's technology isn't what's most important, because it's not what its clients are buying. What they want is great personal

service and advice, and small-business owners in particular will stay loyal to a bank that provides it. That's why Vanir must address the uptick in customer complaints before anything else.

How do you bring NPS numbers back up? Ultimately, Beth can take care of her customers by taking care of her staff. She's already paying above-market salaries, but that goes only so far. Even the most dedicated employees may decide that well-paying jobs aren't worth it if they're being overworked and can't see a light at the end of the tunnel.

So far the bank's strategy of "character lending" and considering qualitative measures of creditworthiness has been successful. But many banks have taken a similar approach and failed, because human judgment isn't always reliable, and as a rule of thumb banks need more than 95% of their loans to be repaid to stay solvent. Beth seems to have found loan officers who can exercise their own judgment to make good loans. But I wonder how sustainable and scalable that is. We recently acquired a bank that made loans in a similar fashion—what senior executives described as "working in the comfortable shades of gray." That bank did this well, but it took more than 15 years for it to grow to \$1 billion in assets. Vanir's growth plan is far more aggressive than that—so its risk profile concerns me. I also question whether its goals are even realistic. The algorithm-enhanced IT system might be a welcome addition to the process, but it should be implemented thoughtfully and carefully when employees are ready, not in a rush right now.

Although Vanir's CTO will be frustrated by a decision to halt the rollout, Beth can emphasize that she's not killing it, just delaying it until employees are less stretched and the NPS figures come back up. Yes, IT-enabled scale will eventually offer advantages to Vanir and help make it more sustainably profitable. But the bank can't relinquish what makes it competitive today.



CHRIS YEH is a cofounder of Blitzscaling Ventures and the Blitzscaling Academy.

Beth should move forward with the IT rollout and business expansion.

A fledgling bank can't risk being outflanked by its competitors. She's understandably worried about the new algorithms and the stress that implementation will cause employees, but I think she can assuage their concerns with a more measured, inclusive approach and better messaging that emphasizes the system's augmented—rather than artificial—intelligence.

Vanir is at a pivotal moment. When a company starts out, its employees all know exactly what's going on because they're literally in the room when decisions are made. But this bank now has five branches and probably dozens of employees. Beth needs to change her management and communication strategy to handle the increased complexity.

First, there doesn't seem to be any consensus on the desirability of the new tech or who's in charge of rolling it out. James, the CFO, is an advocate but isn't involved, while Mariko, the CHRO, is against it but is probably overseeing the training for it. Bruce, the CTO, seems to have designed the system without adequately involving the loan officers and relationship managers who will use it. These are flashing red lights. When a project is this far along, the team should be on the same page about it, and each person's role should be clear and explicit.

The frontline workers who will use the system should have been consulted throughout, providing feedback to refine the product. Chantelle should not be worried that it will harm her connection with customers or be discriminatory.

Although competitive pressures call for Beth to implement the system, she needs to do so thoughtfully. She should characterize the launch as a beta release, slowly introducing the system in two branches and having employees work with the technology team to test and improve it. She should reassure staffers that it's meant to be a tool to make them better at their jobs, not to replace them or change the culture of the company.

At the same time, she needs to lift morale by being both a comforter and a commander in chief. It will take sincere public expressions of empathy and compassion—to the entire workforce and individual employees—to address the extreme toll taken by the pandemic. But Beth must rally the troops around the growth plans, too, because people also want to feel they're part of a winning team. She must explain that Vanir is currently in a sprint to ensure that it delivers on its promise of high-touch, technology-enhanced personal service even during the most trying of times.

The dynamic on her executive team also needs work. Her cofounders should not be sniping at each other. Disagreement is healthy; conflict isn't. Given the trio's history together, I suspect that the strain of operating during a pandemic is getting to them too. Beth should be up-front about addressing this with her executive team.

As Beth works to calm the current crisis and roll out the new tech, she must also undertake the harder and more important work of changing how she leads. I recommend that she start writing a weekly email to the entire staff or launch a private internal podcast with other team members so that people can get to know their coworkers, raise concerns, and perhaps most important, share stories that inspire them to keep going. ☺

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Reprint Case only R2104X

Reprint Commentary only R2104Z



Experience



SYNTHESIS

What's So Special About Founders?

Popular notions about them are often wrong.

by Thomas Stackpole

AMERICANS HAVE AN obsession with business founders and what sets them apart. Is it vision, drive, or insight that helps them turn industries upside down and conjure billions of dollars? Is it how they run meetings or make decisions? Is it because they eat vegan, take cold showers, and meditate? Founders occupy a cultural space that combines celebrity, guru, futurist eccentric, and occasionally comic book villain.

And why not? Jeff Bezos changed both how we shop and how the internet operates. Elon

Musk can cause a meme currency to skyrocket with a single tweet. Mark Zuckerberg can sway public discourse and elections. Bezos and Musk are in a literal space race! If you could figure out just what differentiates them from the rest of us, you could become—or at least invest in—the next superstar founder.

For exactly that reason, myths about founders are powerful. They act as a filter for who gets the capital to start companies and a model for those trying to replicate phenomenal success. But although many investors have honed the art of the judgment call, it turns out that popular notions of what a promising entrepreneur looks and acts like are often wrong. Those notions can have major consequences.

Five new books seek to understand the people behind successful start-ups and how much their imprint matters.

In *Amazon Unbound: Jeff Bezos and the Invention of a Global Empire*, the journalist Brad Stone follows up his book *The Everything Store* with an explanation of Amazon's evolution from mere success to inescapable part of everyday life. Bezos is, of course, the founder against whom all contemporaries are measured. He has reached an unparalleled level of celebrity: He throws Hollywood parties, has his visage hung in the National Portrait Gallery, and publicly spars with former president Donald Trump. He also

fits a particular archetype: white, male, Ivy League-educated, and a visionary, uncompromising industry outsider.

Bezos's now-legendary 14 leadership principles (including "customer obsession," "bias for action," "disagree and commit"), which inform decision-making at Amazon, are cited as instrumental in the development of Alexa, Amazon Web Services, Prime, and Prime Video. One manager told Stone that she reflexively offered some "Amazon-style critical feedback" to her mother, who said, "Please stop using the leadership principles in our relationship." Bezos's blunt, sometimes explosive approach is mimicked by team leaders—whom coworkers have described as "totally cleaved from Jeff's rib"; his obsession with efficiency inspired Amazon's expansive distribution network and dictated the punishing climate of its fulfillment centers.

If Stone's book details how the right person can turn an offering no one asked for into one of the top companies on the planet, then *The Cult of We: WeWork, Adam Neumann, and the Great Startup Delusion*, by the *Wall Street Journal* reporters Eliot Brown and Maureen Farrell, is a lesson in how far a person can get by convincingly playing the part. Deeply reported and compellingly written, it shows that an aura of founder magic allowed a mundane venture—renting office space—to be pitched as world changing until the valuation tumbled and Neumann was ousted as CEO.

Neumann, the authors note, was lionized as "a business titan who could see around corners and would chart a revolutionary course," just like Bezos. Meanwhile, "a whole system thirsting

to believe in the....messianic and charismatic founder and the profits he could seemingly deliver" was ready to be suckered.

Of course, the Silicon Valley archetype isn't the only one. In *Tencent: The Extraordinary Story of a Chinese Internet Enterprise*, the journalist Wu Xiaobo argues that Pony Ma, lead founder of the sprawling tech company, was part of a new generation of Chinese entrepreneurs who emerged from sweeping political, economic, and technological change. Famously media shy, Ma transformed Tencent from a company that connected the internet to pagers into one that spans gaming, mobile payments, e-commerce, the messaging service WeChat, and more. "Tencent acted like a cavalry unit, marching from the remote corner quietly to the center...expanding its territory," writes Xiaobo.

Ma may have eschewed the role of celebrity techno-visionary, but his focus on strategic growth and iteration have made Tencent adept at exploiting emerging opportunities. The guiding principles that Xiaobo identifies (product minimalism, user-driven strategy, rapid testing) aren't necessarily novel—Tencent just seems to execute them better than its rivals do.

Can we reliably predict who will be a Bezos or a Ma and who will be a Neumann? Maybe. That's one of the animating questions of Ali Tamaseb's new book, *Super Founders: What Data Reveals About Billion-Dollar Startups*. Recalling that his own ideas about start-ups came from movies, articles, and "popular mythology," Tamaseb decided to crunch the numbers. Compiling data on the more than 200 companies launched from 2005 to 2018 that reached valuations of more than \$1 billion,

he tests the myths that start-ups founded by Ivy League dropouts, those with two founders, or those backed by a well-known accelerator represent a majority of the sample. He finds that some do and some don't.

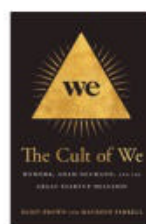
The median age of founders he studied was 34; as many went to top-10 universities as to schools ranked below 100; 70% had worked for another company, and a majority of those for a marquee brand like Amazon, Google, or McKinsey; 60% had previously founded a company. Still, Tamaseb reminds us not to confuse correlation with causation. It's impossible to know whose billion-dollar idea didn't get funding just because the person didn't fit the part.

The New Builders: Face to Face with the True Future of Business, by the venture capitalist Seth Levine and the journalist Elizabeth MacBride, is perhaps meant as a corrective. The authors argue that while tech stars hog the spotlight, small-business entrepreneurs—especially Black, brown, female, and older founders—make up a significant portion of the U.S. economy and run companies that operate in and benefit their communities. And yet "our systems of finance and mentorship have failed to keep up," so entrepreneurship and economic opportunity are declining.

There's nothing wrong with obsessing over what leads to success. We can learn a lot from stories of how others achieved great things. The trick is not to take the wrong lesson. Myths may contain seeds of truth, but they're often mostly fairy tales. Can you tell the difference?  **HBR Reprint** R2104N



Amazon Unbound
Brad Stone
Simon & Schuster, 2021



The Cult of We
Eliot Brown and Maureen Farrell
Crown, 2021



Tencent
Wu Xiaobo
LID Publishing, 2021



Super Founders
Ali Tamaseb
PublicAffairs, 2021



The New Builders
Seth Levine and Elizabeth MacBride
Wiley, 2021

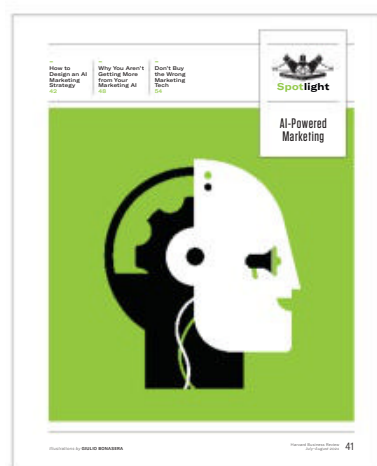


THOMAS STACKPOLE is a senior editor at HBR.

Executive Summaries

July–August 2021

SPOTLIGHT

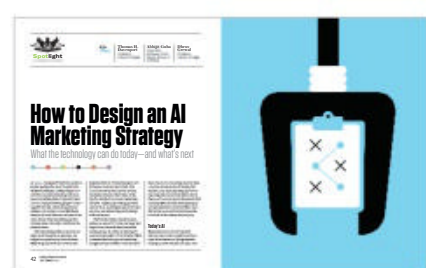


AI-Powered Marketing

Artificial intelligence can turbocharge marketing capabilities, which is why CMOs are rapidly embracing it. But they need to choose their new technologies wisely. | page 41

Each article in this Spotlight is available as a single reprint. The complete Spotlight is also available as a package.

HBR Reprint R2104B



How to Design an AI Marketing Strategy

Thomas H. Davenport, Abhijit Guha, and Dhruv Grewal
page 42

In order to realize AI's giant potential, CMOs need to have a good grasp of the various kinds of applications available and how they may evolve. This article guides marketing executives through the current state of AI and presents a framework that will help them classify their existing projects and plan the effective rollout of future ones. It categorizes AI along two dimensions: intelligence level and whether it stands alone or is part of a broader platform. Simple stand-alone task-automation apps are a good place to start. But advanced, integrated apps that incorporate machine learning have the greatest potential to create value, so as firms build their capabilities, they should move toward those technologies.

HBR Reprint S21041



Why You Aren't Getting More from Your Marketing AI

Eva Ascarza, Michael Ross, and Bruce G.S. Hardie
page 48

Fewer than 40% of companies that invest in AI see gains from it, usually because of one or more of these errors: (1) They don't ask the right question, and end up directing AI to solve the wrong problem. (2) They don't recognize the differences between the value of being right and the costs of being wrong, and assume all prediction mistakes are equivalent. (3) They don't leverage AI's ability to make far more frequent and granular decisions, and keep following their old practices. If marketers and data science teams communicate better and take steps to avoid these pitfalls, they'll get much higher returns on their AI efforts.

HBR Reprint S21042



Don't Buy the Wrong Marketing Tech

Carl F. Mela and Brian Cooper
page 54

The number of vendors offering marketing tech is exploding, but too many companies take a “bottom-up” approach to purchasing it: Rather than starting with the objective of solving a problem, they begin with what is being sold to them. As a result they waste money on hoarding data they don't need and on “shiny new objects”—tools that seem dazzling but don't provide real insights or work with a firm's other technologies. The solution? Follow the three D's: *Deconstruct* the customer journey into key phases and choose objectives for each, *decompose* the marketing strategy for the objectives into tactics, and then *design* how the technologies supporting those tactics will function as a system, looking for gaps and redundancies.

HBR Reprint S21043

HOW WE DID IT



The Founder of Qualtrics on Reinventing an Already Successful Business

Ryan Smith | page 35

“One of the hardest disciplines in business and in life is tearing down what you’ve built to build something better,” writes the founder and former CEO of Qualtrics—among the hottest tech companies of the past decade. He explains how the company grew from a family start-up in Provo, Utah, to be acquired by SAP in January 2019 for \$8 billion: “the largest private enterprise–software acquisition in history.” At its IPO two years later, the opening price valued Qualtrics at three times that amount.

Qualtrics transitioned from a single-product market research company primarily serving academia to a multiproduct company serving enterprises with customer-experience, employee-insights, and market research offerings. Along the way, Smith had to ask his colleagues and coworkers more than once to rebuild the technology stack, replace code, and realign a portion of the 300-person workforce.

HBR Reprint R2104A

MANAGING YOURSELF



The Science of Strong Business Writing

Bill Birchard | page 139

Brain scans are showing us in new detail exactly what entices readers. Scientists can see a group of midbrain neurons—the “reward circuit”—light up as people respond to everything from a simple metaphor to an unexpected story twist. The big takeaway? Whether you’re crafting an email to a colleague or an important report for the board, you can write in a way that delights readers on a primal level, releasing pleasure chemicals in their brains.

Bill Birchard is an author and writing coach who’s worked with many successful businesspeople. He’s drawn on that experience and his review of the scientific literature to identify eight features of satisfying writing: simplicity, specificity, surprise, stirring language, seductiveness, smart ideas, social content, and storytelling. In this article, he shares tips for using those eight S’s to captivate readers and help your message stick.

HBR Reprint R2104L

Say Goodbye to Boring Presentations



How good are your charts? HBR’s **Good Charts for Persuasive Presentations Set** helps you turn plain charts into smart, effective visualizations that engage your audience and convey your ideas. Building good charts is a must-have skill for managers.

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Features

CHANGE MANAGEMENT



How Good Is Your Company at Change?

David Michels and Kevin Murphy | page 62

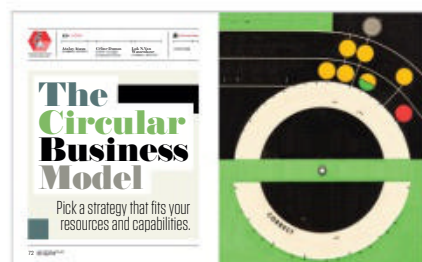
As they deal with a business landscape that is evolving constantly, rapidly, and unpredictably, executives all over the world are full of questions about change: *How much? How fast? How sustainable?* And sometimes just *How?*

They can't hope to answer those questions unless they understand their companies' capacity for change—but they've lacked good tools for measuring that. To address this problem, Michels and Murphy, partners at Bain, devised a way of systematically measuring what they call *change power*. In this article they explain how they devised their system, describe the nine main factors that they believe determine a company's change power, and present data suggesting that companies that rank high on their change power index tend to perform remarkably well financially and have more-satisfied employees.

Most organizations have a change power profile that corresponds to one of four archetypes. Using company examples, the authors suggest a specific approach to improvement for each one.

HBR Reprint R2104C

SUSTAINABILITY



The Circular Business Model

Atalay Atasu, Céline Dumas, and Luk N. Van Wassenhove | page 72

More and more manufacturing companies are talking about what's often called the circular economy—in which businesses can create supply chains that recover or recycle the resources used to create their products. Shrinking their environmental footprint, trimming operational waste, and using expensive resources more efficiently are certainly appealing to CEOs. But creating a circular business model is challenging—and taking the wrong approach can be expensive.

The authors argue that success depends on many factors, but perhaps the most important is choosing a strategy that aligns with the company's capabilities and resources—and addresses the constraints on its operations. In this article they identify the three basic strategies to achieve circularity and offer a tool to help manufacturers identify which is most likely to be economically sustainable. Their recommendations draw on decades of research and consulting with dozens of manufacturers across the world.

HBR Reprint R2104D

STRATEGY



Why Do So Many Strategies Fail?

David J. Collis | page 82

Today it's not unusual for corporations that have dominated their markets for decades to be blindsided by upstarts with radical new business models. A lot of young ventures, on the other hand, raise vast sums of money and attract tens of millions of customers, only to collapse when they can't figure out how to fend off imitators. In these situations and many others, the underlying cause is often a failure to take a holistic approach to strategy.

Strategy today demands more than classic competitive positioning. It requires making carefully coordinated choices about the opportunities to pursue; the business model with the highest potential to create value; how to capture as much of that value as possible; and the implementation processes that help a firm adapt activities and build capabilities that allow it to realize long-term value. Neglecting any of those imperatives can derail a strategy, but CEOs frequently zero in on just one. Entrepreneurs tend to focus on identifying a golden opportunity and don't think enough about how to monetize it; leaders of incumbents, on capturing value but not new ways to create it.

By tackling all the elements of strategy and integrating them well, however, firms will greatly increase their odds of success.

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INNOVATION



The Power of Anomaly

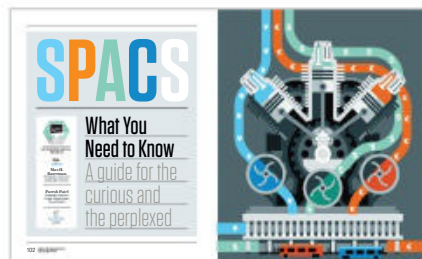
Martin Reeves, Bob Goodson, and Kevin Whitaker | page 94

Identifying the next big thing is often treated as an exercise in analyzing trends. But that's misleading. By the time a trend is established, any opportunities it presents have probably been captured by competitors. And although a company may need to reflect trends in its business plans, that may mean catching up with rivals rather than gaining a competitive edge.

To take advantage of emerging trends, companies must identify them when they are embryonic—not purely speculative, but not yet named or widely known. At that stage the signs will be merely *anomalies*: weak signals that are in some way surprising but not entirely clear in scope or import. Most anomalies don't become meaningful trends, of course. But some do—and the businesses that identify and interpret them early will steal a march on the competition.

The authors present a process for spotting anomalies that have the potential to drive a business, but the process isn't mechanical: Anomaly-driven strategy requires being open to unexpected ideas that may overturn long-held assumptions. Only if you are willing to look at your business from the outside in, question your existing models, and embrace ambiguity will you be able to identify the diamonds hiding in the data.

HBR Reprint R2104F



SPACs: What You Need to Know

Max H. Bazerman and
Paresh Patel | page 102

Special purpose acquisition companies, or SPACs, have been around in various forms for decades, but during the past two years they've taken off in the United States. In 2019, 59 were created, with \$13 billion invested; in 2020, 247 were created, with \$80 billion invested; and in the first quarter of 2021 alone, 295 were created, with \$96 billion invested. In 2020, SPACs accounted for more than 50% of new publicly listed U.S. companies.

SPACs are publicly traded corporations formed with the sole purpose of effecting a merger with a privately held business to enable it to go public. Compared with traditional IPOs, SPACs often offer targets higher valuations, greater speed to capital, lower fees, and fewer regulatory demands.

Despite the investor euphoria, however, not all SPACs will find high-performing targets, and some will fail. Many investors will lose money. As an investment option they have improved dramatically, especially over the past year, but the market remains volatile. More changes are sure to come, which means that sponsors, investors, and targets must keep informed and vigilant. This article is not a blanket endorsement of SPACs. It is simply a guide for businesspeople considering a move into this rapidly evolving (and for many, unfamiliar) territory.

HBR Reprint R2104G



Engaging with Your Investors

Bill McNabb, Ram Charan, and
Dennis Carey | page 114

To create long-term value, corporate boards must focus on managing talent, strategy, and risk. But they also have to satisfy their shareholders, who often have competing demands. Activists, for example, might press for short-term profits, while index funds and other long-term shareholders are more concerned with the company's longevity.

Drawing on years of work with boards, top executives, and the investment community and on interviews with the heads of public and private companies and investment firms, the authors offer a playbook for managing stakeholder relationships productively. They argue that regular, open communication is key; whether aligned with or hostile to the board's long-term objectives, investors often have valuable information about a company and its competitors and can be a source of fresh ideas.

The authors provide guidance on how and when to meet with investors, how to get useful feedback, how to understand what each type of investor is looking for, and how to anticipate and ward off activist attacks. Although the advice is directed at board members, the insights will be valuable to CEOs, other members of the senior management team, and large shareholders as well.

HBR Reprint R2104H



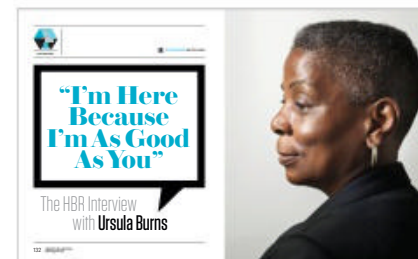
Entrepreneurs and the Truth

Kyle Jensen, Tom Byers,
Laura Dunham, and Jon Fjeld
page 124

Chicanery is common in the start-up world: With so much at stake, founders are apt to exaggerate, obfuscate, and otherwise stretch the truth when courting investors and other important stakeholders. Such deception locks up resources by prolonging the life of doomed ventures and makes it hard for VCs and employees to know where best to invest their money or labor. It also exacts a personal toll on founders themselves.

The authors take a multidisciplinary approach to the problem. They argue that common justifications for such deception—the need to protect investors and employees, and the belief that all entrepreneurs engage in it—do not stand up to scrutiny. And they offer several pieces of advice to founders, drawn from moral philosophy: Dream big, but be forthcoming and honest about the evidence and assumptions underpinning your vision. And surround yourself with virtuous people who will help you be your best self.

HBR Reprint R2104J



"I'm Here Because I'm As Good As You"

Adi Ignatius | page 132

The former Xerox CEO **Ursula Burns**, whose life journey began in a Manhattan tenement, is an outspoken champion of inclusive capitalism and racial equity—themes that animate her just-published memoir, *Where You Are Is Not Who You Are*. In this conversation with HBR's editor in chief, she talks about good leadership in a multistakeholder world, income inequality, battling an activist investor, how being both Black and female affected her career trajectory, and more.

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“Our organization was under tremendous pressure. We were being attacked regularly by the president of the United States.”



Martin Baron

When the Boston Globe launched its Pulitzer Prize-winning exposé of the Catholic Church sexual-abuse scandal two decades ago, Marty Baron drove the effort. He didn't report or write the articles, but as the paper's editor, he led a quest for excellence that inspired his investigative team. (Its work was celebrated in the film *Spotlight*, with Liev Schreiber playing Baron.) In 2013 Baron became the executive editor of the Washington Post. He led it to 10 Pulitzers and through the Trump presidency, adopting the slogan “Democracy dies in darkness.” He retired earlier this year. [Interview by Adi Ignatius](#)

HBR: How does it feel to step down after two high-profile, high-pressure stints?

BARON: I feel liberated. I've been working flat-out for 45 years, 20 years as the top editor. I was looking for a bit of a break.

How do you lead your teams to seek the truth, regardless of consequences, when they have strong personal beliefs?

Journalists can cover anyone if they approach it in the correct way. I try to look at things from the perspective of people we cover and assess whether we're doing a fair job. But fairness also means fairness to the public, by telling them what's really going on. The core principle is to tell as near to the truth as can be ascertained.

Could truth become a casualty of our current, highly polarized environment?

I worry about that. People of all ideological views now sometimes say, “You have your truth, I have mine.” I reject that idea. Of course we should disagree in our analysis of problems and how to address them. That's the nature of a democracy. But we have to agree on a set of facts.

Was it hard to manage reporters who wanted to use social media to air their own views?

People have felt very personally affected by what has happened over the past four years. But I think it's important that we maintain the credibility of our institution and that none of us do anything to undermine it. The *Post* is not just a platform for people to draw attention to themselves. Our primary responsibility

is to advance the interests of the institution. That means getting the facts, putting them in the proper context, and telling the public what we've learned in an unflinching way. What we do in our journalism is far more powerful than any tweet anybody could send out.

Do you have any regrets from your time at the *Post*?

I wonder whether we did enough to diversify the staff as quickly as we should have. I felt very strongly committed to that. Yet there was a view in our newsroom—particularly in 2020, with the protests for racial justice—that we hadn't done enough. I accept that criticism. I wish we had worked harder.

You've had success at several publications. How?

I try to set high ambitions, to talk about the goals we should be achieving. I think people draw conclusions from that. When the *Globe* embarked on the investigation of the Catholic Church, people saw that there were no sacred cows. We were willing to investigate the most powerful institution in all New England.

What lessons have you tried to impart to your staff?

I encourage people to focus more on what they don't know than on what they do know. Our job as journalists is to be constant learners, to recognize that there's always another question we could ask that would tell us more.

How did you deal with the stress of your job?

I guess I dealt with it by retiring. 

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